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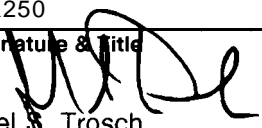
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Occupational Safety & Health Administration
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 Washington, DC 20210



Management Instruction

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Signature & Title  Joel S. Trosch Assistant Postmaster General, ERD	

Title

Job-Related First Aid Injuries

I. Purpose

This Instruction updates information that establishes policy and procedures for reporting injuries to the Office of Workers' Compensation Programs (OWCP), Department of Labor, for determining choice of physician, and for paying medical bills to contract physicians for the initial treatment of job-related first aid injuries.

II. Scope

The policy and procedures in this Instruction apply to all installations which have postal medical officers, health unit nurses, and/or contract physicians.

III. Compliance

The field division general manager/postmaster or designee must ensure that field personnel comply fully with the policies and procedures specified in this Instruction.

IV. Definitions

A. First Aid Case or First Aid Injury

A *first aid case* is normally any work-related minor injury that requires no more than two medical visits, the second of which is to confirm full recovery. The term *first aid injury* is an abbreviated reference to such a case. Examples of treatment are outlined in Item 44, No. 6, of Form 1769, *Accident Report*.

B. Contract Physician

Contract physician refers to any duly licensed physician currently under agreement with the USPS and designated to perform specific medical duties on a fee basis in the area outlined in *Employee and Labor Relations Manual* (ELM) 863.33.

C. Postal Medical Officer

Postal medical officer refers to any duly licensed physician who is employed on a full-time or part-time basis by the USPS to perform medical duties outlined in ELM 863.324.

V. Policy

A. Reportability of Cases

1. Nonreportable First Aid Cases. In both *reportable* and *nonreportable* first aid cases, treatment is limited to two visits and results only in first aid care, and no medical disposition of disability and/or limited duty assignment results. Cases that need not be reported to OWCP are those which meet all the following conditions in addition:

a. Treatment is provided by the postal medical officer, contract physician, or medical unit nurse.

b. Treatment is such that:

(1) The initial visit occurs during work hours on the day or shift of injury or during nonwork hours thereafter.

(2) The followup visit for confirmation of complete recovery occurs during nonwork hours.

2. Reportable First Aid Cases. Cases which must be reported to OWCP include:

a. Cases not meeting *all* of the conditions listed for nonreportable cases.

b. Cases not considered first aid because treatment requires more than two visits or results in other than first aid care or the injury results in medical disposition of disability and/or limited duty assignment.

Distribution

Standard Distribution plus two extra copies each to Regional, Field, and MSC Directors, Human Resources

Special Instructions

Organizations listed under Distribution may order additional copies from area supply centers. Use Form 7380, *MDC Supply Requisition*, and specify the filing number.

You may redistribute this document by photocopying it, but do not paraphrase or otherwise revise it.

B. Free Choice

1. Physician. Under the Federal Employees' Compensation Act (FECA), an employee is guaranteed the right to a free choice of physician. The employee's immediate supervisor is responsible for fully explaining this right to the employee. The following provisions apply:

a. The postal medical officer or contract physician's evaluation is not required before an employee makes an initial choice of physician or receives continuation of pay. If an employee declines first aid treatment or medical evaluation by the postal medical officer or contract physician, authorization for first aid medical examination and treatment by the physician of the employee's choice must not be delayed or denied. An employee's declination in such cases may not be used as a basis to discontinue pay or to controvert a claim.

b. If the postal medical officer, contract physician, or health unit nurse provides initial evaluation and/or first aid treatment to an employee and then further medical care for the injury is needed, such an initial evaluation or treatment does not constitute the employee's initial choice of physician. An employee may elect either to continue medical treatment with the contract physician beyond the first aid treatment or to select a physician of his or her own choice,

c. If an employee elects to continue medical treatment with the postal medical officer or contract physician beyond the first aid treatment, that physician becomes the employee's initial physician of choice.

2. Timing. An employee cannot be required or compelled to undergo medical examination and/or treatment during nonwork hours.

resulting from a job-related first aid injury. OWCP Form CA-17 (or other OWCP-approved form) must not be used to furnish a report of such an evaluation from the postal medical officer or contract physician.

B. Form 1769, Accident Report

Form 1769 must be completed for all first aid injury cases, both reportable and nonreportable. First aid cases must be logged and coded "6" in Item 44. First aid care not exceeding two visits provided by the postal medical officer or contract physician is recorded as *nonreportable* in the Human Resources Information System (HRIS), Safety and Health Subsystem. The following cases, however, are logged, numbered and recorded as *reportable* in the HRIS:

a. All motor vehicle accidents resulting in property damage or personal injury.

b. All cases involving treatment provided by the postal medical officer or contract physician which exceeds two visits or results in other than first aid care, whether or not treatment was provided during duty hours.

c. All cases involving medical treatment by a private physician chosen by the employee.

d. All cases resulting in a medical disposition of disability and/or limited duty assignment.

C. OWCP FORM CA-1, Federal Employees' Report of Injury and Claim for Compensation

Form CA-1 must be completed for all first aid injuries as well as for traumatic injuries. If the case is nonreportable, the form is kept in the employee's official personnel file; if it becomes reportable, the form is forwarded to OWCP. The report is coded as follows:

a. First aid injuries must have "First Aid Injury" on the upper right corner of the supervisor's portion of the form.

b. If initial medical care is provided by a contract physician or postal medical officer, the word "Agency" must be written in block 31. This will distinguish the contract or agency-selected physician from any provider later chosen by the employee.

c. If there are more than two medical visits or if the injury results in disability for work or assignment to limited duty, the case must be properly coded to reflect the severity of the medical disposition, assigned a number, and recorded in HRIS, Safety and Health Subsystem. Under no circumstances can such a case be coded on the CA-1 as a "First Aid Injury."

VI. Report Processing

A. Form 2491, Medical Report-First Aid Injuries

Form 2491 must be completed by the postal medical officer or contract physician to document medical evaluations for job-related first aid injuries (see Attachment B). If treatment meets or exceeds the criteria established for a nonreportable first aid injury, copies of Form 2491 are submitted to OWCP.

Note: OWCP Form CA-16 (or other OWCP-approved form) must not be used to refer an injured employee to the postal medical officer or contract physician for a medical evaluation

D. OWCP Form CA-2, *Federal Employees' Notice of Occupational Disease and Claim for Compensation*

Form CA-2 must be completed for all occupational diseases or illnesses.

E. OWCP Form CA-16, *Request for Examination and/or Treatment*

Form CA-16 must be completed for OWCP reportable cases if treatment beyond first aid is required. The injury compensation control office or point issues a Form CA-16 to the initial physician of choice.

F. Form CA-17, *Duty Status Report*

Form CA-17 must be completed for OWCP reportable cases.

G. Form 2490, *Medical Bill Certification for Job-Related Injuries*

Form 2490 must be completed to authorize payment of medical bills for job-related injuries that are not paid by OWCP (see Attachment A).

VII. Use of Contract Physician

A. USPS Agreement

It is necessary for the field division medical office or service center medical director to establish a medical agreement for professional services rendered by the contract physician.

B. Initial Physician of Choice

If treatment beyond first aid is required and the employee elects to continue treatment with the contract physician, the contract physician becomes the employee's initial physician of choice. Further treatment by the contract physician does not constitute a conflict of interest as defined in ELM 867.5.

C. Payment

1. Initial Treatment. The USPS pays medical bills only for first aid cases and management-requested medical services. In first aid cases the initial examination and/or treatment may be on the date of injury or beyond the day or shift of injury (see V for details). Medical bills arising from these visits may include office visits, X-rays, lab work, pharmaceutical bills, and miscellaneous medical expenses (see Form 1769, Item 44, for examples). Payment for these medical bills is paid locally using Account Identifier Code (AIC) 577, Medical Expenses—On-the-Job Injury or Illness. The entry to Form 1412, *Daily Financial Report*, must be supported by a properly cer-

tified Form 2490.

Note: Medical expenses for treatment of a first aid injury by an employee's private physician must be submitted to OWCP for payment. In cases for which the first aid treatment is provided at the expense of the USPS but the case is subsequently reported to the OWCP, the OWCP district office must be advised, in writing, to preclude dual payment for the initial visit.

2. OWCP Reportable Cases. Form CA-16 is issued directly to the contract physician, precluding the USPS from making direct payment for further services rendered by the contract physician for that injury. All other medical expenses incurred are paid by the OWCP under that agency's rules and regulations, including the application of OWCP's fee schedule.

Note: Any agreement between the USPS and the contract physician concerning fees for services rendered will not be recognized by the OWCP. A written notice advising the contract physician of limitations and the possible reduction of any additional amount billed is printed on the back of Form 2491.

VIII. Injury Compensation Office Responsibilities

A. Injury Documentation

If the employee's injury becomes reportable and is submitted to OWCP, Injury Compensation control office or point personnel must forward to OWCP Form 2491 documenting the medical evaluation of the employee's first aid injury along with all other OWCP forms.

B. Payment Certification

Injury Compensation control office or point personnel must complete Form 2490 to certify contract medical bills for payment.

C. Billing Records

Injury Compensation control office or point personnel must maintain a log of medical billings that have been certified by their office for payment by the Postal Service (see Attachment C). This form may be reproduced locally, as needed.

D. Payment

After medical bills are certified for payment, injury compensation control office or point personnel must route them through the finance section for payment in accordance with local procedures.

STANDARD OPERATING PROCEDURE

TITLE PLAN FOR WEEKLY, BY TOUR, FIRE ALARM TEST.

SOP NUMBER	ORIG. DATE	REVISION DATE	PAGE NUMBER
SOP S-27	06/04/97		01 OF 02

1.0 SCOPE

The following fire alarm controls and procedures are being established in order to provide a standard for testing the fire alarm system on each tour each week.

2.0 DEFINITIONS

Fire Alarm: Horn, bell, gong, or siren that provides a signal that a fire has started.

3.0 PURPOSE

The purpose of this SOP is to control and standardize the method and frequency of fire alarm testing. This will insure proper operation and familiarize all employees with the system.

4.0 APPLICATIONS

Applicable systems: Johnson Controls Fire System.

5.0 EXCEPTIONS/RESTRICTIONS

All fire alarms will be tested at the same time and day of the week on each tour.
The MDO and MMO will be notified at the start of the tour on the day the test will be done.
No building evacuation or other action is required.

6.0 MANAGEMENT CONTROLS

Manager Maintenance Operations (MMO) or his designee will be responsible for maintaining and controlling the tests and the test results. Work orders will be issued to repair any deficiencies.

7.0 PUBLICATIONS/REFERENCES

Employee and Labor Relations Manual (ELM): Chapter 853.11 f.
Code of Federal Regulations (CFR): Title 29 Chapter 1910.165 d.4.
National Fire Codes (NFC): Vol. 1 Chapter 8-2.2.2.

8.0 PROCEDURES

At 0325 on Wed. the tour 1 MMO or his designee will conduct a 15 second fire alarm test.
At 0955 on Wed. the tour 2 MMO or his designee will conduct a 15 second fire alarm test.
At 2055 on Wed. the tour 3 MMO or his designee will conduct a 15 second fire alarm test.

APPROVED BY	DATE
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TITLE PLAN FOR WEEKLY, BY TOUR, FIRE ALARM TEST.

SOP NUMBER	ORIG. DATE	REVISION DATE	PAGE NUMBER
SOP S-27	06/04/97		2 of 2

Important to remember

These tests must be conducted on schedule with no variation.

End of procedure

(DRAFT)_____STANDARD OPERATING PROCEDURE

TITLE: SUSPECT PARCEL AND BOMB THREAT PROTOCOL

SOP NUMBER	ORIG. DATE	REVISION DATE	PAGE NUMBER
SOP #S11	11/13/96	00/00/00	00 OF 00

1.0 SCOPE

This document outlines the Standard Operating Procedures (SOP) for dealing with suspect parcels and bomb threats.

2.0 DEFINITIONS

None.

3.0 PURPOSE

This procedure contains guidelines and instructions in the application of a contingency plan for their particular facility in the handling of bombings, bomb threats, and bomb scares.

4.0 APPLICATIONS

Personnel are expected to notify their supervisor immediately upon discovering suspect parcel(s) or receiving a bomb threat. The following described activation flow delineates how to respond to the first alert and the steps required to activate the response plan. The procedures that follow provide for a problem review and escalation procedure to ensure that management and support personnel are appropriately notified.

5.0 EXCEPTIONS/RESTRICTIONS

None.

6.0 MANAGEMENT CONTROLS

- A. Installation heads must review these instructions with members of their top staffs. They must furnish leadership and guidance necessary to review, update, or develop the contingency plan for handling bomb threats. When installation heads receive threats or warnings about bombs in their buildings, they must immediately notify the:
 1. Local Postal Inspector or Inspector in Charge.
 2. Local law enforcement authorities.
 3. Appropriate Area officials.
- B. Tour supervisors ensure that specific supervisors on each tour and work area are familiar with and understand the operation of the contingency plan. They must have readily available names and telephone numbers of appropriate Inspection Service personnel, law enforcement authorities, military explosive ordnance units, or other bomb disposal squads.

- C. Postal Inspectors have primary responsibility for the investigation of bombs in the mails or in postal facilities and for the investigation of related threats.
- D. Security force personnel are assigned specific responsibilities and functions under the contingency plan, particularly for searches, evacuation, and protection of the scene and evidence.
- E. Other employees: Notification of bomb threats or related acts may also be relayed through newspaper offices, radio stations, police departments, FBI, or other sources. Bomb threats are sometimes received in person by window clerks, custodial employees, or others. All threats must be immediately reported to predesignated supervisors, who ensure that the postmaster, local Postal Inspector or Inspector in Charge, local police, and appropriate Area officials are notified.

7.0 PUBLICATIONS/REFERENCES

Pub. 159-C, TL-2, 6-15-84

*** PRIOR TO PUBLICATION, THIS MATERIAL SHOULD BE REVIEWED BY THE SITE SECURITY OFFICER, SAFETY SPECIALIST, AND THE NEAREST INSPECTION SERVICE OFFICE TO ENSURE COMPLIANCE WITH ANY PUBLICATION AND POLICY CHANGES.**

8.0 PROCEDURES

A. Bomb Threat

1. Telephone Procedures

Because of the potential danger to life and property, immediate action must be taken when a bomb threat is received. The action taken must be consistent with the information provided by the caller. An option not to evacuate may be made when sound judgment and experience indicate there is no real threat.

It is important for the person receiving a bomb threat to obtain as much information from the caller as possible. The "BOMB THREAT" card, Notice 54, should be located near all telephones. See Attachment A.

The following information should be obtained from the caller when possible:

- If the caller does not indicate the location of the bomb or the time of possible detonation, the person receiving the call should ask the caller to provide us with this information.
- Efforts should be made to ascertain the bomb location, i.e., lobby, restroom, etc.
- Was the bomb mailed or placed in location?
- Keep the caller on the line as long as possible.
- Ask the caller their name.
- Determine whether the caller is male or female.
- Attempt to determine if the caller has any type of accent.

- Ask the caller to repeat the message.
- It is advisable to inform the caller that the building is occupied and the detonation of a bomb would result in death or serious injury to many innocent people.
- Listen for any strange or peculiar background noise, such as motors running or the voices of other people. Listen for music, noting the type of music if possible. Listen for noises that might give even a remote clue as to the place from which the call is being made (i.e. Airport).
- Use Caller ID if possible.
- Record the time the call was received and when it was terminated.

2. **Procedure For After The Call Has Been Received**

After receiving the bomb threat via telephone, the recipient should do the following:

Call 9-911 or 911 for assistance, and advise the dispatcher of the situation.

Call the Postal Inspection Service: _____

Call the installation head or designee listed for the facility.

Immediately notify all non-postal tenants of the threat. (Let them make their own determination if they want to evacuate.)

Follow the procedures in the "Post Crisis Management Plan".

Ensure all items on Attachment B: Notification Checklist have been completed.

The Installation Head or Senior Supervisor on duty makes the decision to evacuate all or specific parts of the building, based upon available information and the advice of the local Postal Inspector and law enforcement authorities. Prior to evacuating the building, the validity of the threat should be evaluated taking the following factors into consideration:

The source of the threat. (Was the threat general or very detailed and specific in its content?)

Whether this is the first time a threat has been directed at your facility or whether there have been repeated threats, searches, and evacuations of the facility.

Whether employees are excused from work because of threats.

Whether a first bomb threat, followed by evacuation, possibly precipitated another bomb threat.

The size of the building, number of occupants, type of occupancy, ease of access by non-postal employees and the location of the facility.

If the decision to evacuate is made, follow the fire drill or emergency evacuation procedures. Evacuate all individuals, except the search team. If you have other tenants, they must be notified immediately. All visitors, customers, contract personnel, and others must evacuate the facility as well.

3. **Search Team**

A bomb search team will be formed for each Tour. Membership shall be voluntary and will consist of trained personnel. The team's duties will be to search the facility for **unusual** items or parcels

(See "Suspect Parcel" description). If such an item is located, the team will evacuate and notify the police and Inspection Service of the location.

a) Appointment

The facility head designates search teams (two people per team) and assigns specific areas for each team to search. At least one member of the team should either occupy or be familiar with the search area assigned. The teams should consist of volunteer employees selected in advance, members of the staff, supervisors, or members of the Postal Service Security Force. It is essential that each team member understands the assignment and responds promptly when called upon. Time and thoroughness are of the essence. A membership roster should be published and updated regularly. See Attachment C.

b) Training

The amount of training and specific items to be covered must be determined locally. Search team members must be thoroughly familiar with all hallways, restrooms, stairways, false ceiling areas, and every other conceivable location in the building where an explosive or incendiary device might be concealed. The search teams must be thoroughly trained and thoroughly familiar with the floor plan of the building, and immediate outside areas. The training must include details for communicating with the individual in charge of the search (control center), evacuation notices in event a device is located, and evacuation routes. Training in search techniques is usually available from police, fire, military ordnance, or other units within the community.

c) Equipment

Team members should be equipped with a flashlight. They should know where empty mail bag equipment is stored in the event it is needed to isolate a suspect object. Arrangements should be made for search teams to have access to keys to all areas of the building during an emergency. A rapid two-way communication system should be established, possibly through the use of existing telephones. (CAUTION: The use of radios during the search can be dangerous since radio wave energy could cause premature detonation of an electric initiator-blasting cap.) Bomb suppression blankets have been assigned to some Postal Service Security Force Units. If this equipment is available, its use should be considered in preparing a contingency plan.

d) Procedures

The search for a bomb, when its location is unknown, begins from the outside of the building and works in. Storm gutters, window ledges, bushes, trees, platforms, and wastepaper cans adjacent to the buildings are among the items to be checked. The search of the interior begins with areas accessible to the public (hallways, restrooms, lobbies, stairways, elevator shafts, telephone booths, fire hose racks, ceiling lights, souvenir stands, closet areas, and likely targets of the attack such as military recruiting stations, Internal Revenue Service offices, etc.). Always search from the bottom (basement) to the top (including the roof). Speed is essential, but not to the exclusion of a thorough search.

e) Bomb Discovery

It is imperative that people involved in the search understand that their mission is only to search for and report suspicious objects. Under no circumstances should they touch, move, or jar a suspected object or anything attached to it. The removal or disarming of the object must be left to the professionals in ordnance disposal units. Isolate the suspect

object and evacuate the danger area or the entire building as appropriate or as instructed by the Postal Inspector.

B. Suspect Parcel

1. General Information

A bomb can be enclosed in a parcel or an envelope; its outward appearance is only limited by the imagination of the sender. Suspect parcels have exhibited some unique characteristics which may assist in identifying a suspect mailing. To apply these factors, it is important to know the type of mail normally received by their unit.

The following are some of the typical characteristics:

Mail bombs or suspicious parcels may bear restrictive endorsements such as "Personal" or "Private". This factor is important when the addressee does not normally receive personal mail at the office.

The addressee's name and/or title may be inaccurate.

Mail bombs or suspicious parcels may reflect distorted handwriting, or the name and address may be prepared with homemade labels or cut and paste lettering.

Mail bombs or suspicious parcels usually have an excessive amount of postage stamps affixed.

Letter type bombs may feel rigid or appear uneven or lopsided.

Parcel bombs may be unprofessionally wrapped with several combinations of tape used to secure the package and may be endorsed "Fragile - Handle with Care" or "Rush - Do not Delay".

Parcel bombs may have an irregular shape, soft spots or bulges or feel lopsided.

Pressure or resistance may be noted when removing contents from an envelope or parcel.

GMF PERSONNEL - Ensure all items on Attachment B: Notification Checklist have been completed.

2. Suspect Parcel Procedures

In the event an item is suspected to be an explosive, it is vital for both life and property that immediate action be taken to eliminate the jeopardy involved. The following steps must be taken immediately

Whether a suspect parcel/package is found in the mail stream or not in the mail stream, DO NOT MOVE IT. Evacuate the area and notify supervision.

Note the addresses, both the return address and the address to which the parcel is going, the type and amount of postage, size, shape, the way it is wrapped, and meter number if possible.

DO NOT attempt to ascertain the contents of the parcel.

Call the Postal Inspection Service. _____

Call 9-911 or 911 for assistance. Advise the dispatcher of the situation.

Follow the advice of the Postal Inspection Service, Police, Bomb Squad, and/or Fire Department.

Secure accountable mail.

If the facility is evacuated, leave all the doors open. If the building is evacuated, all doors should be monitored to insure that nobody, except emergency personnel, enters the facility.

Instruct all employees to be alert for suspicious looking and/or acting people, and any foreign or suspicious objects.

NOTE: There is a reward of up to \$50,000 for information and services leading to the arrest and conviction of any person for mailing or causing to be mailed any bombs or explosives which may kill or harm another or injure the mails or other property, or the placing of any bomb or explosive in a postal facility, vehicle depository or receptacle established, approved or designed by the Postmaster General for the receipt of mail.

3. Procedure For After A Suspect Parcel Has Been Found

After discovering a suspect parcel, do the following:

Call 9-911 or 911 for assistance, and advise the dispatcher of the situation.

Call the Postal Inspection Service: _____

Call the installation head or designee listed for the facility.

Complete Notification Checklist (Attachment B) as it applies to your facility.

Immediately notify all non-postal tenants of the threat. (Let them make their own determination if they want to evacuate.)

Follow the procedures in the "Post Crisis Management Plan".

The Installation Head or Senior Supervisor on duty will make the decision to evacuate all or specific parts of the building, based upon available information and the advice of the local Postal Inspector and local law enforcement authorities. Prior to evacuating the building, the validity of the threat should be evaluated taking the following factors into consideration.

The source address of the parcel.

The addressee of the parcel.

Whether employees have recently been excused from work because of suspect parcels.

The size of the building, number of occupants, type of occupancy, and the location of the facility.

If the decision to evacuate is made, follow the fire drill or emergency evacuation procedures. Evacuate all individuals, except the search team. If there are other tenants, i.e., child care center, food service, etc., they must be notified immediately. All visitors, customers, contract personnel, and others must evacuate the facility as well.

Secure in place, all fixed credits, accountable mail, etc., and remove all personnel a safe distance from the building. (Training of management personnel in the specifics of evacuating a building should have taken place in each facility.) Search all evacuation routes, including stairways, prior to evacuating.

Instruct all employees to be alert for any suspicious objects/parcels as they evacuate the building. If any such object is observed, the object should not be disturbed and a member of the search team, or management official should be notified immediately.

C. Explosion Procedures

The primary concern after an explosion is for the safety and well-being of postal employees, customers, and facility visitors. In the event of an explosion, the following steps must be taken:

Evacuate the facility (if not already evacuated), including all tenants, visitors. Account for all employees.

Human Resources shall send a complete list of personnel to the health unit on a quarterly basis.

Keep people away from all roadways leading into the facility so emergency vehicles can enter. IF THE SMELL OF GAS IS DETECTED, DO NOT ALLOW ANYONE TO SMOKE.

Call 9-911 or 911 for assistance. Advise the dispatcher of the situation.

Call the Postal Inspection Service: _____

Call the installation head or designee listed for the facility.

Complete Attachment B: Notification Checklist.

Follow the procedures in the "Post Crisis Management Plan".

Contact the Human Resources Safety Analyst.

DO NOT DISTURB the area of the explosion. DO NOT REMOVE OR TOUCH any evidence.

Secure all accountables and mail.

Witnesses should be isolated to a safe holding area to be questioned by the official investigators.

If necessary, shut down critical building systems (if it can be done safely). If wiring is shorting out, turn off the power. If the smell of gas is detected, turn off the natural gas supply line. If water pipes are damaged, turn off the water.

Contact maintenance to arrange for building repairs.

If the facility has sustained structural damage, a structural engineer will be required to determine when re-occupancy may be safely accomplished.

If the facility is unsafe, all employees shall be notified.

Determine the actions necessary to continue operation by addressing the following items:

1. Employee Safety
2. Staffing
3. Equipment

4. Facility

A first-day debriefing will be conducted by the appropriate personnel.

If injury occurred or postal property was damaged, a PS Form 1769, "Accident Report", must be completed and submitted to the safety office within 72 hours.

9.0 PREVENTIVE MEASURES

- A. Installation heads must take the following preventive measures to strengthen security of their facilities:
1. Establish and enforce strict procedures to control personnel going into work areas. Ensure that unauthorized people have no access to workroom floors.
 2. Instruct all personnel to be alert for suspicious strangers.
 3. Alert all personnel to watch for suspicious objects or parcels that do not belong in the area sited.
 4. Ensure that doors and access ways to areas such as boiler room, computer areas, switchboards, elevator machine rooms, and janitor closets are securely locked when not in use.
 5. Ensure that fire exits are not obstructed. Make a daily check for good housekeeping and proper disposal of combustible material.
 6. Alert medical personnel to stand by during a bomb search.
- B. Prior Planning - The Army has Explosive Ordnance Disposal Detachment (ORD DET) units located throughout the country. Determine ahead of time the specific detachment to call in an emergency. Most large city police departments also have specially trained and equipped bomb disposal squads.

10.0 IMPORTANT TO REMEMBER

- a) Don't ever horseplay while searching.
- b) Don't become careless and overconfident, but complete the search as rapidly as possible. Keep in mind that more than one object may be planted.
- c) Don't allow two-way radio transmission in the near vicinity of suspected object. Static electricity can cause electric fuse caps to explode.
- d) Don't accept identification markings on any suspected package as legitimate.
- e) Don't touch a suspect box or cylindrical object; there is the possibility of sliding contacts, mercury switches, or balanced pendulum fusing systems.
- f) Don't cut a string or any other object attached to suspected package; there is the possibility of pressure release devices.
- g) Don't submerge suspect object in water; there may be conductivity of electric circuits and possibility of violent reactions with chemical agents.
- h) Don't shake or jar suspect object; a bottle on its side may cause certain hypergolic chemicals to mix, causing a mechanical explosion or violent reaction.

END OF PROCEDURE

BOMB THREAT CHECKLIST

(INSPECTION SERVICE
BADGE
PLACED IN THIS AREA)

PLACE THIS CARD UNDER YOUR TELEPHONE

1. When is bomb going to explode?
2. Where is it right now?
3. What does it look like?
4. What kind of bomb is it?
5. What will cause it to explode?
6. Did you place the bomb?
7. Why?
8. What is your address?
9. What is your name?

EXACT WORDING OF THREAT:

Sex of caller: _____ Race: _____

Age: _____ Length of call: _____

Number at which call is received:

Time: _____ Date: ____/____/____

BOMB THREAT

CALLER'S VOICE:

Exhibit I
Bomb Threat - Notice 54

<input type="checkbox"/> Calm	<input type="checkbox"/> Nasal
<input type="checkbox"/> Angry	<input type="checkbox"/> Stutter
<input type="checkbox"/> Excited	<input type="checkbox"/> Lisp
<input type="checkbox"/> Slow	<input type="checkbox"/> Raspy
<input type="checkbox"/> Rapid	<input type="checkbox"/> Deep
<input type="checkbox"/> Soft	<input type="checkbox"/> Ragged
<input type="checkbox"/> Loud	<input type="checkbox"/> Clearing throat
<input type="checkbox"/> Laughter	<input type="checkbox"/> Deep breathing
<input type="checkbox"/> Crying	<input type="checkbox"/> Cracking voice
<input type="checkbox"/> Normal	<input type="checkbox"/> Disguised
<input type="checkbox"/> Distinct	<input type="checkbox"/> Accent
<input type="checkbox"/> Slurred	<input type="checkbox"/> Familiar

If voice is familiar, who did it sound like?

BACKGROUND SOUNDS:

<input type="checkbox"/> Street noises	<input type="checkbox"/> Factory machinery
<input type="checkbox"/> Crockery	<input type="checkbox"/> Animal noises
<input type="checkbox"/> Voices	<input type="checkbox"/> Clear
<input type="checkbox"/> PA System	<input type="checkbox"/> Static
<input type="checkbox"/> Music	<input type="checkbox"/> Local
<input type="checkbox"/> House noises	<input type="checkbox"/> Long distance
<input type="checkbox"/> Motor	<input type="checkbox"/> Booth
<input type="checkbox"/> Office machinery	<input type="checkbox"/> Other _____

THREAT LANGUAGE:

<input type="checkbox"/> Well spoken (educated)	<input type="checkbox"/> Incoherent
<input type="checkbox"/> Foul	<input type="checkbox"/> Taped
<input type="checkbox"/> Irrational	<input type="checkbox"/> Message read by threat maker

REMARKS: _____

Report call immediately to:

Phone number _____

Date ____/____/____

Name _____

Position _____

Phone number _____

BOMB THREAT NOTIFICATION CHECKLIST *

DATE: _____

- POLICE DEPT. 911 OR 9-911
- INSPECTION SERVICE _____
- TENANTS _____
- PLANT MANAGER _____
- OR SR. MDO ON DUTY _____
- MAINTENANCE OPS SUPPORT _____
- VEHICLE OPERATIONS _____
- APWU _____
- NPOMH _____
- NALC _____
- MILITARY EXPLOSIVE
ORDNANCE UNIT _____
- OTHER BOMB DISPOSAL UNIT _____
- FACILITY SAFETY OFFICER _____

ATTACHMENT B

BOMB SEARCH TEAM

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.
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- 20.
- 21.

ATTACHMENT C

END OF PROCEDURE

STANDARD OPERATING PROCEDURE

TITLE Hot Work Permits

SOP NUMBER	ORIG. DATE	REVISION DATE	PAGE NUMBER
S08	10/08/96	11/21/96	01 OF 04

1.0 SCOPE

This standard operating procedure provides instructions for maintenance work that requires a hot work permit.

2.0 DEFINITIONS

Hot work permit is a form (see attached) that is required to be completed prior and after completion of maintenance work that requires the use of tools and equipment that generate sparks, flame, or heat.

3.0 PURPOSE

The purpose of this procedure is to outline the necessary steps to be followed when performing hot work.

4.0 APPLICATIONS

This SOP applies to all maintenance personnel and contractors who will performing hot work.

5.0 EXCEPTIONS/RESTRICTIONS

- A. A hot work permit is not required when performing hot work in a specific area designated and approved for such work.
- B. Hot work may not be performed in
 - 1) Areas with an explosive atmosphere, such as flammable gases, vapors, liquids or ignitable dusts.
 - 2) Areas with potentially explosive atmospheres, such as tanks, drums or other containers that had contained such flammable materials and were improperly cleaned or prepared.
 - 3) Areas near (closer than 50 feet) large quantities of exposed, readily ignitable materials.
 - 4) A sprinkled area when the sprinkler system is out of water.

6.0 MANAGEMENT CONTROLS

Adherence to this procedure is essential in eliminating potential fires or explosions when doing hot work.

7.0 PUBLICATIONS/REFERENCES

APPROVED BY	DATE
-------------	------

TITLE Hot Work Permits

SOP NUMBER	ORIG. DATE	REVISION DATE	PAGE NUMBER
S08	10/08/96	11/21/96	2 OF 4

Maintenance Handbook (MS)-56

8.0 PROCEDURES

Step 1. All hot work requiring a permit must be approved in advanced of the assignment by a designated management representative, usually the maintenance supervisor responsible for the work. This designated management representative must inspect the job site prior to performing hot work to determine if hazardous and combustible materials are present or likely to be present. Combustible materials must be protected from ignition by:

- A. Moving the hot work to a location free from dangerous combustibles.
- B. If the hot work can not be moved, moving of the combustible to a safe distance, or shielding them against ignition by use of flameproof covers or guards.
- C. Scheduling hot work so no other operations that might expose combustibles to ignition are begun during performance of the work.

Step 2. After a satisfactory inspection, the designated management representative completes and signs part A of the hot work permit . It must be then signed by the Mail Processing Tour Superintendant or their designee. If the hot work is being performed by a contractor, the contractor's representative must also sign part A.

Step 3. When employees are assigned to perform hot work, they

- A. Must be properly trained to do work safely.
- B. Must have fire extinguishing equipment readily available at the site.
- C. Must have a fire watcher be present if any of the following conditions exists.
 - 1. Appreciable combustible material in building construction or contents closer than 50 feet to the point of operation.
 - 2. Appreciable combustibles are more than 50 feet away, but easily ignited by sparks.
 - 3. Wall or floor openings within a 50 foot radius which exposes combustible material in adjacent areas, including concealed spaces in walls and floor.
 - 4. Combustible materials that are adjacent to the opposite side of metal partitions, walls, ceilings, or roofs are likely to be ignited by conduction or radiation.
 - 5. Other conditions which, if in the judgement of the designated management representative, requires a fire watch.
- D. A fire watcher remains in surveillance of the area for a period of 30 minutes after hot work is completed.
 - 1. When a fire watcher is not required, the designated management representative makes a final checkup 30 minutes after the completion of the hot work to assure that no fire

TITLE Hot Work Permits

SOP NUMBER	ORIG. DATE	REVISION DATE	PAGE NUMBER
S08	10/08/96	11/21/96	3 OF 4

potential exists.

Step 4. Part B of the hot work permit must be signed 30 minutes after completion of the hot work by the fire watcher, if required or the designated management representative. If the hot work was performed by a contractor, the contractor's representative must sign part B also.

Step 5. The hot work permit should be kept on file where local management determines.

9.0 IMPORTANT TO REMEMBER

Disregard of this procedure could result in a fire or explosion.

END OF PROCEDURE

Hot Work Permit

Permit for cutting and welding
with portable gas or arc equipment

Section A (to be completed before work begun)

Location of work

1. Building _____
2. Floor _____
3. Location within building _____

Time

This permit is valid from _____, _____ to
hour date

_____, _____
hour date

No hot work is to be performed under the authority
of this permit outside of this period.

Description of work _____

Special precautions to be taken _____

Is a Fire Watch Required? _____
Yes No

The answers to the following questions must be yes
or not applicable.

* Are installed sprinklers and fire alarms in
service? _____

* Are fire extinguishers readily available to
personnel doing the hot work? _____

* Do workers know how to turn in a fire alarm?

* Are combustible and flammable materials
moved at least 50 feet away from the hot
work, or protected from sparks by
noncombustible blankets or guards? _____

* Are walls, within 50 feet, and floors made of
noncombustible materials or covered with
noncombustible blankets or guards? _____

* Are wall and floor openings covered? _____

* Is the work area roped off? _____

* Are conveyors, towveyers, or other equipment
which could bring combustible materials into
work area either locked out or covered? _____

* Are covers suspended beneath work to collect
sparks which could damage equipment below?

* Does the fire watcher have an extinguisher?

Signed _____
Designated Management Representative
(after inspection)

Signed _____
Mail Processing Tour Superintendant

Signed _____
Contractor's Representative

SECTION B

Final Check (to be completed after completion of work)

FINAL CHECKUP

Work area and all adjacent areas to which
sparks and heat might have spread (including
floors above and below and on opposite sides of
walls) were inspected 30 minutes after the work
was completed and were found fire free.

Signed _____
Designated Management Representative
or Fire Watcher

Signed _____
Contractor's Representative

(DRAFT)_____STANDARD OPERATING PROCEDURE

TITLE: HAZARDOUS SPILL, LEAK AND EMERGENCY RESPONSE PLAN

SOP NUMBER	ORIG. DATE	REVISION DATE	PAGE NUMBER
S06	09/21/96	00/00/00	01 of 10

1.0 SCOPE

This document outlines the Standard Operating Procedures (SOP) for dealing with spills and leaks of hazardous materials either regulated or non-regulated. This SOP provides emergency response procedures for dealing with spills or leaks of hazardous materials found in the mails, hazardous storage area, battery rooms, underground storage tanks and other points of origin.

2.0 DEFINITIONS

- A. *Hazardous Waste.* By-products of society that can pose a hazard or potential hazard to human health or the environment when improperly managed. Federal regulations place hazardous wastes into two categories:
- B. *Characteristic Wastes.* Wastes that are ignitable, corrosive, reactive, or toxic.
- C. *Listed Wastes.* Specific wastes that are included on any of four lists included in the Resource Conservation and Recovery Act (RCRA) regulations.
- D. *Toxic Substance.* A substance that is harmful to living organisms--specifically, an asphyxiant, poison, mutagen (alters DNA), teratogen (causes birth defects), or carcinogen (causes cancer).
- E. *Unknown Substance.* A substance of unknown composition or characteristics.

3.0 PURPOSE

This Standard Operating Procedure will establish administrative responsibility, assign specific duties and emergency procedures to control spills, specify procedures for use of personal protective clothing and equipment, and designate outside sources to contact for assistance.

4.0 APPLICATIONS

Personnel are expected to notify their supervisor immediately upon discovering a spill or leak. As a precaution, all such substances should be treated as **toxic and/or hazardous** unless reliable information indicates otherwise. The following described activation flow delineates how to respond to the first alert and the steps required to activate the **Hazardous Spill, Leak and Emergency Response Plan**. The procedures that follow provide for a problem review and escalation procedure to ensure that management and support personnel are appropriately notified.

5.0 EXCEPTIONS/RESTRICTIONS

None.

6.0 MANAGEMENT CONTROLS

- A. Employees are expected to notify their supervisor immediately when leaky and other substance from damaged parcel(s) or container(s) are discovered. As a precaution, all such substances should be treated as toxic and/or hazardous unless reliable information indicates otherwise.
- B. The Plant Manager has administrative responsibility.
- C. Manager, Distribution Operations, on duty, is responsible to determine what action is necessary to control leaking and spilled material and to determine if the material is hazardous. If hazardous material is involved or if toxicity is unknown, treat as hazardous. The Manager, Distribution Operations, will decide if total or partial evacuation is necessary or if other actions are appropriate. Manager will also notify the Hazardous Materials Spills Coordinator through Maintenance Operations Support and the Safety Office.
- D. If material is suspected to be hazardous and a spill or leak has occurred, the Manager, Distribution Operations, will evacuate the immediate area of the spill/leak until identification of substance is determined.
- E. Personnel with hazardous spill clean-up duties will use personal protective equipment. Personal protective equipment is stored in Spill Control Stations.

7.0 PUBLICATIONS/REFERENCES

- | | |
|---------------------|---|
| 1. 40 CFR 110 | 10. 29 CFR 1910.1030 |
| 2. 40 CFR 112 | 11. Management Instruction EL-810-90-6 |
| 3. 40 CFR 116 | 12. Management Instruction AS 510-88-14 |
| 4. 40 CFR 117 | 13. Management Instruction AS 553 |
| 5. 40 CFR 302 | 14. Management Instruction AS 554 |
| 6. 40 CFR 355 | 15. Management Instruction AS 510-88-14 |
| 7. 40 CFR 370 | 16. EL 812 |
| 8. 29 CFR 1910.12 | 17. MMO 61-81 |
| 9. 29 CFR 1910.1200 | |

*** PRIOR TO PUBLICATION, THIS MATERIAL SHOULD BE REVIEWED BY THE SITE ENVIRONMENTAL COORDINATOR AND/OR SAFETY SPECIALIST TO ENSURE COMPLIANCE WITH ANY PUBLICATION AND POLICY CHANGES.**

8.0 PROCEDURES

FIRST ALERT PROCEDURE

If you become aware of a suspected spill/leak, perform the following procedures.

1. Complete the alerts required by the existing Emergency Action Plan.
2. Determine if the suspected spill/leak has affected any area of the facility.
3. If the facility has been affected, notify the Plant Manager or individuals designated as an **INITIAL RESPONSE** and provide the information listed below.
 - a. Your name
 - b. Description of the occurrence
 - c. Any information regarding attempted or actual alert contacts
 - d. Phone number and location where you can be reached

DISASTER VERIFICATION AND RESPONSE

The first **INITIAL RESPONSE CONTACT** person notified of the disaster will assume the responsibilities of the **DISASTER VERIFIER** and perform the tasks outlined below.

1. While on the telephone with the individual performing the **FIRST ALERT**:
 - a. Obtain the following information:
 - 1) Who is making the call?
 - 2) What is the nature of the problem?
 - 3) What is the preliminary assessment?
Personal Injuries:
Physical damage:
 - 4) Can access to the building be gained?
 - 5) Are there any immediate dangers or restrictions?
 - 6) Review the status of the **INITIAL RESPONSE** contact attempts.
 - 7) Obtain the phone number and location where the person performing the **FIRST ALERT** can be reached.
 - 8) Record the date and time.
 - b. Provide information as to when you will arrive and where you will meet the person performing the **FIRST ALERT**.
 - c. Advise the caller that you will make all further management contacts.
2. Notify another **INITIAL RESPONSE CONTACT** and provide preliminary assessment information. Arrange for assembly of selected personnel to act as Assessment and Evaluation teams.
3. Report to the disaster site, and meet with the individual who made the **FIRST ALERT**, Administration Representative, and Fire, Police, Postal Inspectors and Resource Conservation and Recovery Act (RCRA) notification if available/required.

DISASTER ASSESSMENT AND EVALUATION

When the Recovery and Management Teams assemble, they will perform the following activities.

1. Dispatch selected team members to reassess the extent of the damage to the facility and its contents.
2. If access is restricted, obtain an estimate of when access will be allowed by local authorities.
3. Review the finding of the assessment activities.

4. Determine the level of Recovery Activation requirements.
 - a. Temporary Interruption - Facilities, equipment not seriously affected; building engineers or vendor personnel with a minimum of service outage.
 - b. Limited Recovery Activation - Certain teams, but not all, will be activated based on affected areas and service.
 - c. Full Recovery Activation - All teams will be activated.
5. If no further recovery activities are required, terminate the recovery activity.

POINTS OF CONTACT AND FACILITY INFORMATION

1. Emergency _____
2. Poison Control Center _____
3. State Department of Health _____
4. CHEMTREC (chemical) 9-1-800-424-9300

If CHEMTREC is contacted, provide as much information as possible including:

- a. Your name and office.
- b. Nature and location of problem.
- c. Type of Material.
- d. Shipper or manufacturer of product.

5. Center for Disease Control 8-401-633-5313
6. EPA _____
7. Postal Inspection Service _____
8. State Department of Health _____
_____ - 24 hour hot line
9. Maintenance Operations Support _____
10. Safety Office _____
11. District UST Coordinator _____
12. Area Environmental Coordinator _____
13. Medical Unit _____
14. Fire Dept (non emergency) _____

HAZMAT RESPONSE TEAM

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
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- 21.

SPILL/LEAK RESPONSE

If a suspected hazardous/listed (40 CFR 355, App. A or B) material spill or leak has occurred, immediately evacuate the area until identification of the substance is determined.

A. Spill Control Stations are at the following locations:

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.

B. The following materials are available to supplement items found in the Spill Kits and are located as shown:

1. Chemical Splash Face Shields
2. Full Length Neoprene Aprons
3. Respirator
4. Mess Kits - Maintenance Control (Maintenance Operations Support)

These kits will be utilized for containment and clean-up. These response kits will be restocked after each usage, the team will clean all reusable personal protective equipment and place in proper storage.

Identification of the material can usually be determined from the label of carton(s) or container(s). If identification is not possible, consider material **hazardous**, until the shipper or the addressee can be contacted or waste management identification has been made.

Disease germs and biological spills should be handled in accordance with the **BLOODBORNE CONTACT EXPOSURE PLAN** by Area and 29 Code Federal Regulations 1910.1030.

LINE OF ADMINISTRATION

The Plant Manager or Facility Manager has administrative responsibility for hazardous material spill activity. The Plant Safety Specialist, has safety and administrative responsibility of the plant and employees. The Environmental Coordinator has responsibility for environmental compliance, RCRA notification and or local authority notification. The Hazardous Material coordinator, is the administrative, safety, and hazardous material team leader. The HAZMAT team leader integrates all

shift activities and assists in ordering of hazardous material supplies and responds with other team members in containing spills/leak activities. HAZMAT coordinator of designated team member will contact and notify the Plant Manager, Environmental Coordinator, Postal Inspection Service, District Safety Specialist and Manager, Distribution Operations with results. Hazard Material response team members who are appointed in the facility will respond to contain the spill and will have the proper personal protective equipment for clean-up operations. When a material spill is, in the opinion of the hazard material team members, too dangerous or has escalated to a level of immediate danger of life and health to employees they will notify the Denver Fire Department, and the P&DC Environmental coordinator for RCRA response.

UNDERGROUND STORAGE TANK PROCEDURES

In addition to criteria outlined in the Facility UST Emergency Action Plan, the following alert/notification procedures should be followed:

Personnel identified as First Alert as outlined in section III, discovering suspected leak/contamination shall notify that Initial Response Contact, Underground Storage Tank Coordinator, Facility Head and/or Hazardous Materials Coordinator as shown in the Points of Contact and Facility Information portion of section III. Initial Response Contact shall insure action of shutdown, evacuation and spill control procedures as outlined in section III of this document. After completion of the initial stages of Spill Response Facility Head shall insure the completion and submission of Underground Storage Tank Unauthorized Release (Leak) and Contamination Site Report (attachment B). UST Coordinator will insure that the State Department of Health & Environment notification period is not violated as described in the State Statutes. A Release is described as anything under the surface and/or more than 25 gallons on the surface. Underground Storage Tank Coordinator will initialize abatement process. **NOTE:** Less than 25 gallons need not be reported should facility response be able to contain clean and disposes. The response team must insure that at no time will released product be permitted to enter any waterway (Waters of the State) or the sanitary sewer system Publicly Owned Treatment Works (POTW).

MERCURY SPILL RESPONSE

Mercury looks like liquid silver. When dropped, will easily splatter into many drops and flows into small cracks and crevices. **DO NOT TOUCH IMMEDIATELY CONTACT YOUR FIRE DEPARTMENT TO RESPOND.** Isolate the area until fire department arrives.

Following cleanup, the area should be surveyed for mercury vapors. The Fire Department will conduct the test and notify the Environmental Coordinator or his representative when they have determined it is safe for employees to return to the unit.

MEASURES TO TAKE CHEMICAL/BIOLOGICAL SPILL OCCURS

First, STOP OPERATION, stand away from leaking/spilled item and immediately notify unit supervisor. The unit supervisor will notify the Hazard Material Team to respond. The Hazard Material Team will handle or move spilled item using Neoprene gloves or appropriate gloves, apron or Tyvek all purpose coveralls. Chlorine bleach will be used for biological spills. Any blood or blood by product skin contact must be flushed for period of 10 minutes in cold water to close down the pores of skin. If the employee is not allergic to bleach then skin contact must be washed off with 10% mixture of household bleach in water, which is stored in the hazard material cart. If an

employee comes in contact with human blood, tissue, leaking parcel of spill, he/she must be examined by a physician and cleared before returning to duty. If the spill/leak was etiologic agent or human blood, the employee must be scheduled for the Hepatitis B vaccine with 24 hours of the contact incident. The container should be double-bagged with the Bio-Hazard label and should use red hazard plastic bag and sealed for the next action. Notify Inspection Service, Safety Office, and the Center for Disease Control for disposition of the container. Wash contaminated equipment, gloves and other items from biological clean up by using a solution of 10% bleach (1 part household bleach to 9 parts water). Allow 15 minutes before rinsing. Contaminated clothing should be removed as soon as possible and double-bagged for cleaning or possible disposal. Injured or exposed personnel will receive IMMEDIATE MEDICAL ATTENTION. As soon as it is determined medical aid is necessary, call MDO and if it represents a serious threat to life, call 911 (emergency response system) for assistance. **NOTE: When calling 911, give address of Facility:** First Aid Information is contained in the Hazardous Material Guidebook (EL-812).

MEDICAL ASSISTANCE UNTIL HELP ARRIVES

Isolate injured or contaminated person(s) from the area with as little physical contact as possible. Move affected victims to fresh air. Do a quick drenching of eyes and skin if any contact with spilled substance. Use eyewash/deluge shower located at Column 4G. Call medical unit and 911 for emergency care. Limit any first aid to what is absolutely necessary until qualified medical personnel are present. Direct all personnel exposed to radioactive materials to flush then wash all exposed body areas with cold water immediately and report to a physician for an examination without delay. Avoid inhalation. Do not touch material or walk into area of vaporized or spilled materials without proper protective equipment. First aid information is contained in the Hazardous Materials Guidebook (EL-812) kept on the spill kit and in the equipment cabinet in the HAZMAT cage at column 4G.

AFTER CLEAN UP AND DISPOSAL

After clean up has been accomplished, PS Form 1770 (HAZARDOUS MATERIALS INCIDENT REPORT Attachment A) is to be filled out by the Manager of Distribution Operations or Person designated to do so. Forward a copy of report to the Safety Specialist ONLY if spill caused an injury, was bloodborne, or caused serious facility disruption. To dispose of any hazardous material use current EPA regulations governing disposal.

If any mail sealed against inspection must be opened for safety inspection purposes, notify the nearest Postal Inspector, as appropriate, in advance for instructions.

TRAINING

Each employee who works with or is potentially exposed to hazardous waste, hazardous chemicals/materials, suspected underground storage leaks and/or leaks in the mail, shall receive initial training on the Hazardous Communication Standard and the safe use of hazardous materials in the work area. Additional training will be provided for employees whenever a new potentially hazardous chemical/material is introduced into the work area. Hazardous training will be conducted by the Hazardous Materials Coordinator or assigned designee, and/or the Site Safety Specialist. Records of training are to be submitted to the Environmental Coordinator, Safety Specialist, and Hazardous Materials Coordinator, as outlined in 29 CFR 1910 and 40 CFR 110-370. HAZWOPER training phase 1,2, and/or 3 training as appropriate shall be given to all

members of the hazardous materials response team. At a minimum the Hazardous Material Coordinator shall be trained to the specialist level (phase 2). Manifesting and disposal practices training shall be provided to all personnel either manifesting waste product and/or disposing of products.

INSPECTIONS

Temporary storage area(s) shall be inspected one (1) per week by the Hazmat Coordinator. A report of discrepancies (if found) shall be submitted to the Environmental Coordinator(s) & Safety Manager(s). A log will be maintained in the Environmental Coordinator's office and shall be signed after completion of each inspection.

MATERIAL SAFETY DATA SHEET/TIER II REPORTING

Current MSDS sheets are located in Maintenance Operations Support; all products requiring MSDS shall be approved by safety as outlined in MMO 61-81 prior to purchasing of listed product. A review of all MSDS sheets should occur at least annually. A master list of MSDS required products and on-hand quantities shall be provided to Safety Specialist and Environmental Coordinator. This information is required for possible TIER II reporting. Should TIER II reporting be required, reports must be submitted annually prior to March 1. Copies should be maintained by the Environmental Coordinator.

9.0 IMPORTANT TO REMEMBER

END OF PROCEDURE

Management Instruction

Response to Hazardous Materials Releases

This instruction provides policy and guidance for responding to hazardous materials releases in a manner that is appropriate to the type of materials and circumstances of the release in accordance with 29 Code of Federal Regulation 1910.120 (known as the “HAZWOPER” regulation). The instruction focuses primarily on responding to spills and leaks originating from items placed in the mailstream, which can usually be handled by individuals who have received training and follow these procedures.

Date	02/01/96
Effective	Immediately
Number	EL-810-96-1
Obsoletes	EL-810-90-6
Unit	ER200



Gail Sonnenberg
Vice President
Human Resources

Responding to Incidental Spills and Leaks from Mailed Items

Limited Mailability of Hazardous Materials

The Postal Service accepts for mailing, in limited quantities, potentially hazardous materials that are not outwardly or of their own force dangerous or injurious to life, health, or property. Most of the items that are accepted are equivalent in potential hazard to Department of Transportation “other regulated materials” (ORM-D) (consumer commodities).

Most mailed items can be absorbed or otherwise controlled at the time of release, and it is unlikely that a release would result in airborne concentrations above OSHA permissible exposure limits or any other hazardous situation.

Preventing Incidents

Acceptance personnel must help prevent incidents in the following ways:

1. Assist customers by advising them about what materials are mailable. Use approved inquiry procedures when doing so.

Poster 76, *Hazardous Materials*, should be prominently displayed in all lobbies, and Notice 107, *Hazardous Materials*, should be available at counters and display racks. Publication 52, *Acceptance of Hazardous, Restricted, or Perishable Matter*, provides specific mailability standards for hazardous materials, and is based on Domestic Mail Manual C023.

CONTENTS

Responding to Incidental Spills and Leaks From Mailed Items

- Limited Mailability of Hazardous Materials
- Preventing Incidents
- Cleanup Policy
 - Planning
 - Cleanup
- Responding to Exposure or Injury
- Filing Hazardous Materials Incident Report
- Providing Training
 - Type of Training
 - Materials
 - Record Keeping

Responding to Hazardous Materials Releases

- Emergency Response to Release of Hazardous Materials
- Resource Conservation and Recovery Act (RCRA) Issues
 - Small Quantity Generators
 - Large Quantity Generators
- Treatment, Storage, and Disposal Facilities (TSDFs)
- Underground Storage Tanks (USTs)
- Emergency Planning and Community Right-to-Know Act (EPCRA) Issues
- Toxic Substances Control Act Issues
 - PCBs
 - Asbestos
- National Oil and Hazardous Substances Pollution Contingency Plan (NCP) Issues

– continued

CONTENTS

continued

Program Responsibilities

Headquarters

Areas

Districts and Plants

Attachment 1

Standard Operating Procedures for Cleanup of Spills and Leaks of Mailed Items

Attachment 2

Emergency Action Plan (EAP)

Emergency Action Plan Compliance Checklist

Attachment 3

HAZWOPER Training Requirements for USPS Employees

Business Mail Acceptance at Headquarters or rates and classification service centers (RCSCs) determine mailability.

2. Make sure that parcels are properly packaged and labeled.

Acceptance and other personnel should be alert to the potential presence of hazardous materials in a package. Indicators include:

- The sound of liquid or a shifting weight.
- A Department of Transportation diamond-shaped label or marking placed on the parcel to comply with the hazardous materials regulations.
- Address information showing the parcel is being mailed to or from a chemical firm or laboratory.
- An International Biohazard Symbol label to comply with the Postal Service standard in the *Domestic Mail Manual*, C023.
- A stain or unusual odor.

Cleanup Policy

Planning

Processing and distribution plants and other facilities that frequently handle mailed hazardous materials, regardless of the size of the facility, must establish both of the following:

1. Facility standard operating procedures (SOPs) for dealing with spills and leaks of items in the mailstream. These designate personnel to make early decisions and clean up incidental spills and leaks, establish procedures, and provide for training, personal protective equipment, and other resources. See attachment 1 for guidance in preparing an SOP.
2. Emergency action plans (EAPs) for dealing with emergency situations, including a section on emergencies that may arise as a result of spills and leaks. These provide emergency numbers to call and outline shut-down, escape, and rescue procedures. Publication 52, sections 240 and 250, outlines procedures that must be followed to establish EAPs in accordance with 29 CFR 1910.38. See attachment 2 for further guidance in preparing an EAP.

Some facilities must also have emergency response plans (ERPs) required by 29 CFR 1910.120 to address hazardous materials emergencies. See Hazardous Materials Releases in this document for guidance in preparing an ERP.

Facility safety personnel, in conjunction with area or district environmental coordinators, prepare SOPs, EAPs, and ERPs, as needed.

Cleanup

Postal employees (other than emergency response team members) must limit cleanup of spills and leaks of mailed hazardous materials to cleaning up the quantities and types of materials that are mailable and that are not normally expected to exceed Occupational Safety and Health Administration (OSHA) Permissible Exposure Limits (PELs) or pose any other hazard (e.g., flame, explosion, radioactivity).

Employees must not be directed to handle parcels leaking nonmailable hazardous materials or substances that are irritating to the eyes or respiratory tract, smoking or releasing visible vapors, or otherwise suspected of a hazard. Instead, they are to isolate the area, call for expert hazardous materials response personnel, and proceed with other actions indicated in the facility EAP.

Trained and equipped members of an emergency response team, established in some facilities in accordance with the OSHA standard 29 CFR 1910.120 (HAZWOPER), may respond to emergencies within the scope of their training *provided* they retreat and leave further response to outside hazardous materials experts if they discover an extremely hazardous, toxic, radioactive, or explosive material.

Responding to Exposure or Injury

Injured or exposed personnel must receive immediate medical attention. Exposure may occur by inhalation of vapors or fumes, skin contact, or some other route. If no medical assistance is available, the injured person should receive first aid measures until he or she can be seen by a physician.

In all cases of injury or exposure involving hazardous materials, the employee must be examined and cleared by a physician before returning to duty. Servicing medical personnel must conduct appropriate medical follow-up to exposure. For exposure to bloodborne pathogens, see Management Instruction MI-EL-810-95-3, *Bloodborne Disease Exposure Control Plans*.

Filing Hazardous Materials Incident Report

Incident reports must be filed when a mailed item produces injury, illness, significant property damage, or disruption to operations. Form 1770, *Hazardous Materials Incident Report*, is used to report incidents to Safety and Risk Management at Headquarters, and a copy must go to the local inspector in charge.

Installation heads are to ensure that mailers involved in hazardous materials incidents are promptly contacted. They should include the results of the contact in the Follow-Up Action block on the form, indicating who was contacted, how the contact was made, and the date.

ACRONYMS

CHEMTREC	Emergency information service of the Chemical Manufacturers Association
HAZWOPER	Hazardous Waste Operations and Emergency Response (OSHA standard 29 CFR 1910.120)
ORM-D	Other regulated material, mostly items of minimal hazard in transport due to quantity and properties (DOT Regulations)
OSHA	Occupational Safety and Health Administration

REFERENCES

Postal

Domestic Mail Manual
Form 1770, *Hazardous Materials Incident Report*
Handbook AS-553, *Hazardous Waste Guide*
Handbook EL-812, *Employee Awareness — Hazardous Materials*
Hazardous Materials Response Guide: Department of Transportation
Management Instruction AS-550-92-8, *Hazardous Waste Management*
Management Instruction EL-810-95-3, *Bloodborne Disease Exposure Control Plans*
Notice 107, *Hazardous Materials*
Poster 76, *Hazardous Materials*
Publication 52, *Acceptance of Hazardous, Restricted, or Perishable Matter*

Other

NIOSH Pocket Guide to Chemical Hazards

Additional information on hazardous materials releases involving environmental laws and regulations may be obtained by consulting postal environmental publications referenced in this instruction and consulting with area environmental coordinators.

Completion of this form does not satisfy the requirements to complete postal accident forms or other reports required by federal or state environmental regulations.

Providing Training

Type of Training

All employees must receive periodic training on the facility emergency action plan.

Acceptance personnel must receive annual training on hazardous materials mailability standards contained in the *Domestic Mail Manual* and Publication 52.

Mail handlers, supervisors, and other employees frequently handling packages that may contain hazardous materials must receive HAZWOPER First Responder — Awareness Level training or its equivalent.

Maintenance and custodial personnel, supervisors, and other persons designated to manage and clean up incidental spills must receive HAZWOPER First Responder — Operations Level training or its equivalent.

Safety and health personnel should have professional level training in hazardous materials (e.g., Hazardous Materials Specialist or equivalent), although they do not need certification.

Police officers, according to OSHA regulation, must receive First Responder — Awareness training and annual refreshers. The Inspection Service administers this training.

Materials

PEDC Courses 21511-00 through -06, Hazardous Materials Acceptance and Handling; PEDC Course 21511-07, Hazardous Materials Cleanup, and Handbook EL-812, *Employee Awareness — Hazardous Materials* (which informs employees of the facility SOP) are being revised to meet HAZWOPER requirements at this publication date.

As these materials become available, management must ensure that all affected employees receive the updated training. In the interim, they should use existing postal training supplemented by off-the-shelf Awareness and First Responder — Operations training. See Attachment 3 for content requirements and further information on training.

Record Keeping

All training must be documented at the facility level.

Responding to Hazardous Materials Releases

Emergency Response to Release of Hazardous Materials

The Postal Service is required by federal and some state environmental regulations to provide appropriate response to release of hazardous materials.

In many facilities, an adequate plan can be established by appending a section to the EAP required by 29 CFR 1910.38 and providing information necessary for notification of hazardous materials response personnel and, as necessary, federal or state officials.

Some other facilities have special requirements mandated by specific regulations. Environmental Management Policy at Headquarters has issued policy and guidance documents that address compliance with these regulations. These include MI-AS-550-92-8, *Hazardous Waste Management*, and Handbook AS-553, *Hazardous Waste Guide*.

Resource Conservation and Recovery Act (RCRA) Issues

Small Quantity Generators

Facilities that generate less than 100 kilograms of hazardous waste are conditionally exempt from Environmental Protection Agency (RCRA) requirements found in Interim Status Standards for Hazardous Waste Facilities Emergency Plans (40 CFR 265, Subpart C).

Facilities that generate between 100 and 1000 kilograms of hazardous waste must comply with the interim status standards for emergency preparedness and prevention procedures except that such facilities are not required to prepare and maintain contingency plans.

Management in all cases must ensure that all employees are familiar with proper waste handling and emergency procedures and that the following information is included in the emergency action plan and posted near an appropriate phone:

- The facility's emergency coordinator's name and phone number.
- The location of fire extinguishers, spill control materials, and fire alarms.
- The fire department's phone number.

Large Quantity Generators

Facilities generating more than 1000 kilograms of hazardous waste must comply with all RCRA regulations, including the interim status standards (40 CFR 265, Subpart C) for emergency preparedness. Environmental coordinators will prepare these plans, in cooperation with safety. If employees respond to releases, HAZWOPER compliance is required.

Treatment, Storage, and Disposal Facilities (TSDFs)

Facilities permitted as TSDFs must comply with interim status standards for hazardous waste facilities, including emergency preparedness and contingency plans. Environmental coordinators, in cooperation with safety, establish these plans. If employees are evacuated when an emergency occurs and not allowed to assist in handling the emergency, only the emergency action plan need be modified to reflect this policy and procedure. If employees respond to releases in any way, HAZWOPER compliance is required.

Underground Storage Tanks (USTs)

40 CFR 280 requires release response and corrective actions when USTs leak or product is otherwise released. Emergency action plans must include the following elements:

1. Determine if there is an immediate fire or health hazard and take appropriate action (e.g., contact fire department, evacuate affected employees).
2. Notify management and the UST coordinator for the facility. All further response activities related to reporting and cleanup occur through the UST coordinator and the environmental coordinator responsible for the facility.
3. Determine (through consultants if necessary) if the release presents a continuing health hazard to employees (e.g., gasoline vapors in substructures) and advise management on corrective actions.

Emergency Planning and Community Right-to-Know Act (EPCRA) Issues

Postal facilities do not normally handle or release hazardous materials in quantities which require reporting or release information under EPCRA (40 CFR 355, 370, 372). Underground tank contents may be reportable (consult environmental coordinators). If fire departments or local emergency committees request information on hazardous materials under EPCRA 311 or 312, safety specialists, coordinating with environmental compliance coordinators, should provide the facility MSDS

inventory used to comply with the OSHA Hazard Communication Standard. Environmental coordinators respond to all other requests for emission or release information.

Toxic Substances Control Act Issues

PCBs

Polychlorinated biphenyl (PCB) transformers and other electrical equipment must be marked in accordance with 40 CFR 761. Emergency action plans must provide for appropriate actions to take in the event of a fire or explosion involving PCB transformers or other PCB-containing electrical equipment or leaks from transformers. Facility managers, assisted by environmental coordinators, ensure that PCB spills and leaks are cleaned up in accordance with 40 CFR 761.

Asbestos

OSHA has determined that releases of asbestos from abatement projects, transportation of waste, etc., require compliance with HAZWOPER. Therefore, if such releases occur, only trained experts should respond. Consult the management instruction on asbestos-containing building materials, EL-810-94-3.

National Oil and Hazardous Substances Pollution Contingency Plan (NCP) Issues

Responses to spills and leaks covered by the NCP are the responsibility of the facility manager, with technical assistance from the environmental coordinator. See 40 CFR Part 302. Safety and Risk Management personnel participate to ensure that postal employees are protected and kept informed of potential health risks.

Program Responsibilities

Headquarters

Safety and Risk Management, Human Resources, coordinates and establishes policy relating to postal employee handling of, and safe response to, spills and leaks of hazardous materials. Safety and Risk Management receives reports of hazardous materials (HAZMAT) incidents involving mailed items (Form 1770) and coordinates with Headquarters, area, district, and plant offices to prevent future occurrences. Safety and Risk Management also coordinates with Business Mail Acceptance, which has primary responsibility for determining the mailability of hazardous materials.

Environmental Management Policy establishes policies and coordinates postal efforts pertaining to cleanup and disposal of HAZMAT releases within the scope of federal and state environmental regulations.

Areas

Area Human Resources evaluates facility level HAZMAT spill and leak SOPs, emergency response plans within the scope of HAZWOPER, and emergency action plans required by 1910.38.

Area environmental coordinators evaluate emergency response plans, remedial response activities, and reporting and other activities relative to environmental regulations.

Districts and Plants

Facility managers are responsible for establishing SOPs for incidental spills and leaks of mailed items, emergency action plans, and, as appropriate, emergency response plans.

Safety and human resources specialists develop and coordinate implementation of spill and leak SOPs. They coordinate with area and district ECCs on development and implementation of emergency response plans (HAZWOPER) as needed.

Attachment 1

STANDARD OPERATING PROCEDURES FOR THE CLEANUP OF SPILLS AND LEAKS OF MAILED ITEMS

A standard operating procedure (SOP) must be developed at the facility level and tailored to the resources and needs of that facility. The emergency action plan for the facility (see attachment 2) is to be appended to and referenced in the SOP. (Facilities that elect to comply with HAZWOPER and establish emergency response plans and teams must ensure that all regulatory requirements are addressed in the SOP.)

An outline of necessary elements and procedures for responding to spills and leaks of mailed items follows.

1. Designation of employees to manage handling of spills and leaks of hazardous materials in the mails.

Trained spill team leaders, supervisors, or other personnel are designated to manage handling of spills and leaks by:

- a. Attempting to identify the spilled material and determine if it can be handled by postal personnel.
- b. Determining cleanup and disposal measures for materials that can be safely handled by postal employees.
- c. Determining what personal protective equipment (PPE) is appropriate if postal personnel can manage the incidental spill.
- d. If material is outwardly hazardous or unknown, initiating implementation of the facility emergency action plan (e.g., evacuation, call for fire department, etc.).

2. Designation of employees to clean up spills and leaks within the scope of postal policy.

Spill team personnel must follow all procedures and wear protective equipment as necessary. If at any point during discovery, cleanup, or disposal a hazardous condition is suspected or encountered, they must isolate the parcel and contact management to initiate the emergency action plan.

3. Contacts for assistance.

Phone numbers for CHEMTREC, fire department, CDC, poison control center, and other local resources.

4. References on identification and cleanup.

Resources must be available at a designated location to assist in identification of hazardous properties of materials and precautions to be taken. References may include publications such as:

- *NIOSH Pocket Guide to Chemical Hazards.*
- *Hazardous Materials Response Guide*, Department of Transportation.
- Hazardous Materials Cleanup: Student Handbook from PEDC Course 21511-08 (under revision) for HAZWOPER First Responder — Operations compliance.
- A copy of the facility SOP and Emergency Action Plan.

5. Information on PPE adequate for limited response.

Persons frequently handling mailed medical wastes, specimens, etc., must be provided impermeable gloves.

Persons designated to clean up incidental spills and leaks must be provided with appropriate protective equipment. Equipment must be stored in a secure location and cleaned after each use. Equipment must be selected, based on the material to be cleaned up, from the following minimum supplies:

- Chemical splash, face shield, and goggles.
- Neoprene gloves or equivalent that provide forearm protection.
- Rubber boots or equivalent.
- Neoprene full-length apron or equivalent.
- Air purifying respirators may be supplied if a full respiratory protection program is in place. However, the SOP must clearly state that any indication of a respiratory hazard or IDLH situation requires retreat. SCBA are not necessary unless the facility has established response plans under HAZWOPER. It is postal policy to protect employees by avoiding inhalation hazards whenever feasible rather than relying solely on respirators for protection.

6. Information on cleanup materials, containers, spill tubs.

A supply of cleanup materials should be available to absorb, decontaminate, and assist in disposal of incidental spills of mailable hazardous materials. This must include:

- Commercial nonorganic shop drying agents, sand, and vermiculite.
- Spill cleanup materials such as Solusorb, Speedi Dri, Ensafe Solidification agents, and spill control pillows available from spill cleanup vendors.
- Broom, dustpan, shovel, spill control tubs, plastic bags, and other containers.

- Household bleach, paper towels, and medical waste bags for handling spills and leaks of specimens, etc. (see MI EL-810-95-3, *Bloodborne Disease Exposure Control Plans*).
 - A HAZMAT handling and storage area with local exhaust ventilation and eye lavage and shower.
7. Information on washing facilities.
- An eye lavage and safety shower must be located in the immediate area of the rewrap operation or where leaking containers are frequently handled (e.g., the HAZMAT room).
8. Information on storage and ventilation.
- A room or area must be designated for handling and temporary storage of leaking parcels. Local exhaust ventilation (e.g., a laboratory hood) must be provided in this HAZMAT room or area. Adequate storage meeting NFPA codes is required.
9. Clearly defined procedures for HAZMAT response for affected employees handling the mail, supervisors, and designated cleanup persons.
- a. Handlers. Persons handling mailed items must be apprised (through awareness training) of the facility SOP and emergency action plans and follow these procedures:
 - Upon discovery of a leaking parcel isolate the package, shut down mechanization if applicable, and summon the supervisor or persons designated in the SOP. Have no further contact with the package. If you make any contact with the material, immediately wash up and seek medical attention.
 - When a package leaks in a delivery vehicle, isolate it, if possible. If there is any indication of a hazard (e.g., labeling, odor, smoke, or eye irritation), park the vehicle in a safe location and notify the supervisor and fire department. Have no further contact with the package.
 - b. Supervisors. Supervisors must be trained on the facility SOP and emergency action plan and assume these responsibilities:
 - Upon notification of a leaking parcel, contact the designated cleanup persons, while ensuring that the parcel is isolated and the immediate area cleared.
 - If a hazard is immediately apparent, follow the facility emergency action plan.
 - c. Designated Cleanup Persons. Persons designated to manage spills and leaks follow these procedures:
 - Determine if the material is outwardly hazardous (smoking, irritating, odorous, labeled or marked as hazardous).

- If so, initiate actions under the facility emergency action plan.
- If the material is mailable and can be safely handled, proceed to select PPE and cleanup methods and equipment. Place the package in a spill control tub or other container and transfer it to the HAZMAT holding area or rewrap area for further examination and/or rewrap.
- Consult environmental coordinators on disposal of hazardous waste as necessary.

10. Training activities appropriate to employees' duties.

Administration of training based on requirements explained in the main body of the management instruction must be documented.

11. A requirement for periodic review of the program by safety, maintenance, operations, and environmental coordinators.

Attachment 2

Emergency Action Plan (EAP)

Emergency action plans cover a wide assortment of potential emergencies, including fire, explosion, and bomb threats. They are required by 29 CFR 1910.38 to address designated actions management and employees must take to ensure employee safety.

A portion of each emergency action plan should address actions to be taken in the event of a hazardous materials spill and leak in the mail-stream or other operation. It must include the following information specific to hazardous materials incidents:

1. HAZMAT experts and/or the fire department numbers to be called in the event of a spill or leak. Prior coordination with the fire department is required.
2. Emergency escape procedures and emergency route assignments and places of refuge.
3. Procedures to be followed by employees who remain to operate critical plant operations before they evacuate, if necessary, including shutdown of mechanization and air handling equipment.
4. Procedures to account for all employees after emergency evacuations.
5. Provisions for first aid, rescue, and medical follow-up.

Safety specialists, environmental compliance coordinators, and operations management must review the entire plan for conformance with 1910.38 and ensure it is implemented and reviewed periodically.

Emergency Action Plan Compliance Checklist

(Excerpted from 1910.38(a), OSHA Instruction CPL 2-2.59)

1. Is the plan in writing?
2. Is the written plan accessible to employees?
3. Are emergency escape procedures and emergency escape routes assigned?
4. Are procedures established to account for all employees after the emergency evacuation has been completed?
5. Has an employee alarm system that complies with 29 CFR 1910.165 been established?
6. If an employee alarm system is used for other purposes, have distinctive signals for each purpose been developed?

7. Has the employer designated and trained a sufficient number of persons to assist in the safe and orderly evacuation of employees (generally one warden per 20 employees)? (See Appendix to Subpart E, Means of Egress, 3.)
8. Has the employer reviewed the emergency action plan with each employee covered by the plan initially, and when the plan or the employee's responsibilities under the plan change?
9. Is the written plan kept at the workplace and made available for employee review?
10. Is the plan real or just a subterfuge to avoid compliance with 1910.120(q)? Does the employer actually intend to have employees respond to emergencies?
11. Does the employer intend to have employees handle incidental releases? If so, are the training, tools, equipment, and personal protective equipment (PPE) appropriate for handling small releases of the hazardous substance available in the work area?

Attachment 3

HAZWOPER Training Requirements for USPS Employees

I. First Responder — Awareness Level (or equivalent)

Required of:

- Mail handlers
- Supervisors
- Other employees frequently handling packages that may contain hazardous materials.

Duration:

No set duration. May be included in employee orientation and hazard communication sessions.

Subject Matter:

The following guidelines parallel OSHA requirements:

1. An understanding of hazardous materials, including general categories of hazardous materials accepted into the mailstream.
2. An understanding that hazardous materials incidents can result in injury, damage to equipment, or mail if not properly handled.
3. Ability to identify a potential hazardous spill or leak; look for levels, placards, addresses that may indicate the presence of HAZMAT. Avoid contact with packages that are leaking, smoking, irritating to eyes or respiratory tract.
4. Familiarity with the facility spill and leak SOP, (e.g., who to call, necessity of isolating the area, and other elements of the emergency action plan).

II. First Responder — Operations Level (or equivalent)

Required of:

- Maintenance and custodial personnel
- Supervisors
- Other persons designated to manage and clean up incidental spills.

Duration:

8 hours

Subject Matter:

In addition to content specified for First Responder — Awareness training, the following subject matter is required.

1. Knowledge of basic hazard and risk assessment techniques.
2. Selection and use of PPE provided for limited cleanup duties.
3. An understanding of basic HAZMAT terms.
4. Thorough familiarization with the facility SOP and EAP.



Building and Site Security Requirements

Handbook RE-5

March 1999

This handbook contains information that must be restricted to postal officials, inspectors, and security control officers; employees at a Postal Service facilities service office or major facilities office; and architect/engineer firms or other identified consultants who need the information in order to design, specify, estimate, or review a specific project.

Building and Site Security Requirements

Handbook RE-5

March 1999
Transmittal Letter 7
Restricted Information

- A. Explanation.** This complete revision of Handbook RE-5 replaces and obsoletes all previous versions of this handbook. It details U.S. Postal Service building and site security policies and requirements concerning all postal facilities; new construction (Postal Service-owned or -leased); and the erection, renovation, remodeling, or expansion of any structure occupied or to be occupied by or for the Postal Service.
- B. Deviations.** Requests for deviation from the requirements of Handbook RE-5 must be submitted in accordance with the policy defined in Chapter 1.
- C. Distribution.**
- 1. Initial.** Distribution is restricted to Inspection Service divisions, Inspection Service domiciles, facilities service offices and major facilities office, area vice presidents, area security coordinators, and district managers of Administrative Support.
 - 2. Additional Copies.** Copies may be ordered from the material distribution center (MDC) by submitting Form 7380, *MDC Supply Requisition*.
 - 3. Restriction.** Distribution of copies and/or portions of this handbook must be on a Restricted basis as listed on the cover.
- D. Comments and Questions.** If you need further clarification of the policies and procedures outlined in this handbook, send your request to:
- INSPECTOR IN CHARGE
SECURITY GROUP
UNITED STATES POSTAL SERVICE
475 L'ENFANT PLAZA SW ROOM 3337
WASHINGTON DC 20260-2186
(202) 268-3159
- E. Effective Date.** These requirements are effective immediately and must be used on all facility-related projects, including new construction, renovations, and repair and alterations projects.



Rudolph K. Umscheid
Vice President
Facilities

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1 Introduction

1-1 Scope

1-1.1 Purpose

The requirements set forth in this handbook are intended to ensure a safe and secure environment for postal employees, postal assets, and mail in postal custody. However, the requirements stated in this handbook are not to be construed as all-inclusive. These requirements fall into the following two basic categories:

- a. *Security of personnel, buildings, and mail on-site.* This category provides for security of personnel within the confines of the site and the security of mail and postal assets on or as they enter or leave the site.
- b. *Security of mail and Postal Service assets within a building.* This category of security includes protecting against theft and providing for the apprehension of anyone, postal employee or the public, attempting to remove or tamper with the mail or Postal Service assets within a building. This requirement is mandated by statutory authority, *United States Code* (U.S.C.), titles 18 and 39, and *United States Code of Federal Regulations* (CFR), titles 39 and 41.

1-1.2 Policy Statement

Compliance with Handbook RE-5 — and Handbook AS-503, *Standard Design Criteria*, which further implements these standards — is mandatory at all postal facilities, whether Postal Service-owned or -leased. Handbooks RE-5 and AS-503 are intended to work in conjunction with other postal policies and procedures.

The requirements in this handbook apply to all existing postal facilities; all new construction; and all renovations, alterations, remodeling, or expansion of any structure occupied or to be occupied by or for the Postal Service for the purpose of processing, staging, or otherwise handling mail matter and/or postal assets. Although no security guarantees are implied, compliance with these requirements is mandatory in order to ensure that the most acceptable level of security and protection available are provided.

Temporary security measures must also be provided during any renovation, alteration, remodeling, or expansion project at an existing postal facility. The

general contractor, their employees, subcontractors, laborers, or representatives must be issued security clearances in accordance with *Administrative Support Manual (ASM)* 272.3 if working in a building occupied by the Postal Service.

1-1.3 Document Organization

The requirements in this handbook have been divided into the following chapters, starting with the perimeter of the site and working inward to the building's physical components, spaces, and systems:

- a. *Site Security* — requirements pertaining to security measures on sites occupied by postal facilities.
- b. *Security Requirements for Building Components* — technical requirements for discrete building elements and systems.
- c. *Security Requirements for Types of Operations and Functional Areas* — specific security requirements mandated by the type of space or functions within a building.
- d. *Criminal Investigative System (CIS)* — technical requirements for the criminal investigative office (CIO), CIS closed-circuit television (CCTV) system, and lookout galleries (LOGs).

The first three of these chapters deal with security measures directed against external and internal threats — such as theft, vandalism, assault, armed robbery, etc. The final chapter, Criminal Investigative System, deals with security measures required to protect the integrity of the mail from internal threats.

1-2 Codes and Standards

1-2.1 Code Requirements

The requirements in this handbook are intended to comply with the provisions of applicable security, life safety, and building codes. If conflicts arise, they must be immediately brought to the attention of the manager of Design and Construction, Facilities Program Management, Facilities, Headquarters.

1-2.2 Postal Service and Industry Standards

All known applicable Postal Service and industry standards were used to prepare this handbook. See Appendix A for a list of those standards. If conflicts arise, they must be immediately brought to the attention of the manager of Design and Construction at Headquarters.

1-2.3 Americans With Disabilities Act

Postal property is subject to the Architectural Barriers Act of 1968, as implemented in Handbook RE-4, *Standards for Facility Accessibility by the*

Physically Handicapped. However, leased facilities may fall under the jurisdiction of the Americans With Disabilities Act (ADA) as well.

In accordance with 36 CFR 1191, *Americans With Disabilities Act (ADA) Accessibility Guideline for Buildings and Facilities*; Final Guidelines, Section 4, Scope and Technical Requirements 4.1.1, Application 5, General Exceptions paragraph b, "accessibility is not required to observation galleries used for security purposes or to unoccupiable spaces accessible by ladders." LOGs are also exempt from handicap accessibility as stated in Handbook RE-4. Individual inspector offices, including CIO areas, are also exempt from handicap requirements; however, common-use Inspection Service space must meet current handicap criteria.

1-3 Coordination With Inspection Service

1-3.1 Security Assessment

To provide the Inspection Service with an opportunity to address the specific security requirements for every Postal Service-owned or -leased facility, it is mandatory that the appropriate inspector in charge (INC) be advised, in writing, by the preparer of the document(s) immediately upon implementation of a facility planning concept (FPC) or other initial project document. Coordination with the Inspection Service is required throughout the planning, design, and construction phases of every facility project to ensure that security requirements are met; thus, early consideration of security concerns allows the process to flow more smoothly.

Numerous factors can influence the level of security required at a given facility. As part of the security risk analysis, the inspector must weigh the following considerations at the start-up of any project:

- a. Type of postal operation to be housed in the facility.
- b. Hours of operation.
- c. Size of the facility, and of the workroom in particular.
- d. Type of retail presence (if any).
- e. Number of employees.
- f. Site and geographic location.
- g. Local crime statistics and patterns.
- h. Whether the building is existing or new construction.
- i. Whether or not mail of a sensitive nature is to be handled at the facility.
- j. Whether or not other tenants share the same building, and if so, what kind.
- k. Other inside or outside influences.

The inspector must submit in writing all security recommendations for the building, based on the risk analysis, to the project manager prior to or during the 10 percent and 30 percent design reviews.

1-3.2 Authorizations

The Inspection Service is solely responsible for evaluating and approving the need for security-related equipment and for security personnel (see ASM 271.4). All security-related CCTV systems, access control systems, bullet-resistant screenlines, and burglar or duress alarms must be evaluated and approved by the Inspection Service. After developing a site risk profile and security risk analysis, the Inspection Service determines the need for these or other security products and services, and provides the results of the analysis, in writing, to local postal management.

1-3.3 Security Levels

The risk analysis allows inspectors to specify the required security level for the facility. Each facility will be classified as either baseline or high security as defined below:

- a. *Baseline security* — the standard level of security required for any postal facility.
- b. *High security* — an enhanced level of protection based on particular risk factors at a given facility. High security measures are required in both medium and high crime areas. These requirements are in addition to baseline security.

The requirements throughout this document are construed as baseline security, except where specifically noted as high security.

1-4 Design and Construction Standards

1-4.1 Building Design Standards

Facilities has developed a family of building design standards, available on a CD-ROM, which include plans, details, and specifications as follows:

- a. Handbook AS-503, *Standard Design Criteria* — umbrella document that defines overall design and construction requirements for various facility types.
- b. *Standard Detail Library* — construction details for use on all facility projects.
- c. Modular buildings — prefabricated buildings of less than 1,500 square feet.
- d. *Small Standard Building Designs* (SSBDs) — less than 9,000 square feet.
- e. *Medium Standard Building Designs* (MSBDs) — from 9,000 to 60,000 square feet.
- f. Processing and distribution (P&D) centers — approximately 70,000 square feet and larger.
- g. *Retail Standard Designs* (RSDs) — postal retail stores, typically housed in alternate quarters (AQ).

- h. *Master Specification* — a guide specification for construction or repair and alteration projects.

The Postal Inspection Service has worked closely with Facilities on the development of the standard designs for the above-referenced building types and documents to ensure that appropriate levels of security and the standards of Handbook RE-5 have been incorporated. The Inspection Service will monitor the design process and construction of such buildings to ensure compliance and to determine if changes to the standards are dictated. If conflicts should arise between the requirements of this document and those found in the Building Design Standards, the Building Design Standards take precedence; bring any such discrepancies to the attention of the manager of Design and Construction at Headquarters for future correction.

1-4.2 Deviations

1-4.2.1 Submittal Process

Requests for deviation from this handbook, or from security-related criteria in the building design standards, are to be submitted in accordance with the deviation policy as defined in Handbook AS-503. Such requests must be submitted in writing through the facilities service office (FSO) or major facilities office (MFO) project manager and office manager to the manager of Design and Construction at Headquarters. The manager of Design and Construction at Headquarters forwards the requests to the proper Headquarters organization for adjudication as necessary — including the Security Group, Criminal Investigations, Inspection Service, Headquarters. The response from these organizations will be returned to Facilities Headquarters and will then be forwarded to the field with the final determination.

For deviation requests on projects where the FSO or MFO is not involved — such as minor renovations or modifications required as a result of an Inspection Service security survey — the deviation is submitted directly to the manager of Design and Construction at Headquarters and need not be routed through the FSO or MFO.

1-4.2.2 Documentation

All security-related deviation requests must be accompanied by supporting documentation, including a written recommendation from the INC (see Appendix B for a list of inspectors and their jurisdictions). The INC's recommendation is required regardless of who initiates the deviation request. In addition, documentation is to include the following items as necessary: designs, comparisons of manufacturer's specifications, cost benefits, and all special local conditions that impact security. The package must be submitted to the FSO or MFO in a timely fashion to minimize all adverse effects of the proposed change(s).

1-4.2.3 **Standard Plans and Details**

Baseline security has been incorporated into Facilities' standard plans, details, criteria, and specifications. Reduction of, modification to, or additions to the baseline security must be submitted as a deviation request in accordance with the process described in 1-4.2.1.

Deviation approval is not required to increase to high security if it is required by the risk assessment; however, security measures in excess of those defined in this document as high security must be submitted for deviation approval.

1-4.2.4 **Custom Design**

Custom designs require deviation approval. Follow the deviation process described in 1-4.2.1 for custom design buildings. The inspector must work closely with the FSO or MFO to address security concerns as part of the custom design.

1-5 **Inspection Service Review Criteria**

1-5.1 **Security Review Policy**

The Inspection Service must be involved in the facility planning, design, and construction processes. The FSO, MFO, administrative services office (ASO), and Retail must provide notification of all projects including, but not limited to, notification for all meetings, inspections, site visits, and/or other project developments. Shop submittals, catalog sheets, specifications, meeting minutes, and project schedules must also be submitted to the local inspector for review, comment, and approval as appropriate. Appendix C contains checklists of items for the inspector's review. These lists are intended as guides and are not all-inclusive.

1-5.2 **Review Process**

1-5.2.1 **Site Risk Profile**

During the site selection process, the local inspector visits all proposed sites and develops a site risk profile for each. The site risk profile is provided to local management in a timely manner. Significant security concerns for a specific site may adversely affect its viability, and costs to resolve the concerns may make a site too expensive to purchase. These security cost factors must be incorporated into the site selection process.

1-5.2.2 **Review of Operational Space Layout**

The operational space layout (OSL) is a drawing that shows the location of all carrier cases and all automation and mechanization equipment used to process the mail. The inspector must review the OSL, if applicable, to ensure that CIS visibility is provided for all mail processing areas, i.e., key stations, keying and sweep side operations (optical character reader (OCR), delivery

barcode sorter (DBCS), carrier sequence barcode sorter (CSBCS), and small parcel and bundle sorter (SPBS)), carrier and all manual mail processing operations, etc. The OSL is usually incorporated into a mail processing project package. For all projects larger than 9,000 square feet, an OSL is required by the 30 percent review. If a facility of less than 9,000 square feet has a projected 10-year, full-time employee complement (including transitional employees) of 20 or more, an OSL is also required by the 30 percent review.

1-5.2.3 **Design Review Stages**

1-5.2.3.1 **Documentation**

All design phase security recommendations must be submitted to the project manager in writing.

1-5.2.3.2 **Ten Percent Design Review**

For the 10 percent design review, the inspector *must* review the facility planning documents and the initial design plans. The inspector must notify the project manager of any special security needs or any significant deviation request items at or before this point. Inspectors must ensure that security requirements are considered; these requirements are to be included as part of the 30 percent design submittal.

1-5.2.3.3 **Thirty Percent Design Review**

The inspector must review the documents to ensure that the comments from the 10 percent design review have been included. Initial security drawings for building and site must be provided for review. The inspector also reviews the specification package as it relates to the security concerns, such as security glazing and security grilles. This is the last opportunity to recommend structural changes, such as relocating the LOG or CIO or adding a vault.

1-5.2.3.4 **Seventy Percent Design Review (If Applicable)**

The inspector must review the documents to ensure that the comments from the 30 percent design review have been included. The inspector reviews the hardware schedule and the specification package as they relate to the security concerns such as security glazing, security grilles, and hardware to ensure that known security standards are incorporated and complete. Detailed security plans for building and site are reviewed at this time.

1-5.2.3.5 **One Hundred Percent Construction Documents**

The inspector must review the documents to ensure that the comments from both the 30 and 70 percent design reviews have been incorporated. A follow-up review must be completed if the project is postponed for 6 months or longer and then reactivated. The inspector reviews the specification package as it relates to security concerns; ensures that the specification package meets the requirements of this handbook; and initials the construction drawings, documenting the fact that all security-related issues have been addressed and resolved. This security review requirement pertains to all standard design projects as well as custom design projects.

1-5.2.3.6 Construction Site Visits

The inspector attends construction meetings as necessary and makes periodic site visits to ensure that the security requirements are incorporated into the facility in accordance with the design documents. If the inspector finds security issues not addressed in the design documents or any deviations from design documents, he or she must immediately report the information to the project manager and follow up in writing. A site visit must be made at the end of construction to establish a security punch list. The project manager must submit a punch list to the inspector and must ensure that all security items on the punch list are completed prior to move-in.

2 Site Security

Site security, in conjunction with facility planning, design, and construction, is intended to prevent unauthorized entry or exit by employees and/or others; to provide easy observation of employees entering or leaving the site; and to allow inspection of employees' vehicles in accordance with 39 CFR.

2-1 Parking and Maneuvering Areas

Areas for customer parking, employee parking, and postal vehicle parking and maneuvering areas must be separate from one another as noted in this section. Parking areas are to be located close to their respective entrances into the building. Postal employee vehicles may not be parked with highway contract route (HCR) vehicles, motor vehicle service (MVS), or other commercial vehicles. Facilities less than 9,000 square feet are exempt from this requirement, meaning that employees' private vehicles and postal vehicles may be commingled.

2-1.1 **Customer Parking**

Fencing is not required around the customer parking area. The area does, however, require adequate lighting to provide a safe environment for customers to do business with the Postal Service.

2-1.2 **Employee Parking**

Along the property line, the employee parking area is to be enclosed with a standard security fence as defined in 2-2.1. Along the border between employee parking and postal vehicle parking areas, a 6-foot secondary fence must be installed as defined in 2-2.2.

2-1.3 **Postal Vehicle Parking**

Postal vehicle parking areas must be protected as stated in 2-2.1.

2-2 Security Fencing

Security fencing is required for every facility over 9,000 square feet. A single employee entrance is required through the fence to the building. Aesthetic fencing or screening that is not normally used for security may be justified, provided that it does not compromise the security requirements of this chapter and is approved in writing by the Inspection Service.

2-2.1 Perimeter Fencing

2-2.1.1 Construction

Perimeter fencing, including gates, must be constructed of 11-gauge (minimum) steel wire with 2-inch mesh fabric chain links. It may be covered in vinyl. If security conditions warrant, 9-gauge steel wire fabric or other alternatives, such as fencing with smaller chain links or welded mesh, must be considered.

Perimeter fencing and gates must be 8 feet high. In addition, a top guard is required on all fencing. If local codes or the community objects, a deviation is required as outlined in Handbook AS-503. The local government and community are notified that the top guard will be installed if any vandalism to the building or vehicles occurs. The top guard must be designed as follows:

- a. It faces outward and upward at a 45-degree angle.
- b. It is mounted on top of the fence or wall to increase the height by 1 foot.
- c. It consists of three strands of 11-gauge, double-twisted barbed wire with four-point barbs closely spaced.

Fencing must be in straight lines and terminate at ground level on either a concrete mow strip, paved surface, or firm nonshifting soil. A horizontal rail must be installed at the bottom of the fence, and a tension wire at the top of the fabric. All ties securing the fabric to the fence posts, rails, or other structural members must be 11-gauge steel wire (minimum). The use of screw-type fasteners to secure the fence fabric to the rails and posts should be considered.

If a chain-link fence is not in keeping with neighborhood aesthetics or local zoning ordinances, an 8-foot high, nonscalable wall or decorative fence must be provided. Thick interlocking bushes may be used; however, if bushes with long thorns are installed, a low fence is required to keep pedestrians from walking into the bushes. If local zoning codes, ordinances, or strong citizen reaction oppose fencing or walls, proposed options are to be approved in writing by the Inspection Service prior to any agreement that eliminates the fence or walls.

Fencing and gates should be protected from vehicular damage by using wheel stops, curbs, bollards, and/or guardrails, as required.

2-2.1.2 **Location**

Perimeter fencing is to be provided as follows:

- a. Along the property lines abutting adjacent land if practical.
- b. At a minimum, the area around the maneuvering and storage compound and around the employee parking lot if it is not economical to fence the entire site. (For example, if a site covers 10 acres and only 3 acres are being developed, typically only the immediate area requires fencing. The remaining land is to be posted every 100 feet with no trespassing signs stating that the land is government property. The land must be maintained so as not to be a nuisance area in the community. There may be extenuating circumstances when the whole property may need to be fenced. Check with the local postal inspector.)
- c. Along street frontage, to enclose the paved parking and maneuvering areas for employee and postal vehicles.
- d. Abutting buildings on both sides of public areas.

Perimeter fencing is not be provided in the following instances:

- a. Customer parking areas and driveways.
- b. Official parking areas, if separate from the employee parking area and visible from the street. The decision to fence employee parking areas is to be based on local crime conditions and is to be made after consultation with the Inspection Service.

2-2.1.3 **Clear Zone**

The clear zone is defined as that area on either side of the fence which provides visibility adequate to discourage any criminal activity. The clear zone is located inside the fence and must be free of outbuildings, places of concealment, or points of unauthorized entry to the facility and/or postal vehicles and equipment. If possible, the clear zone is to be 10 feet on either side of the fence. However, this is not always possible due to the location of the property line in relation to the fencing.

The trees and shrubs to be planted in this zone are to be carefully considered in regard to their respective growth. The clear zone must have only low shrubbery (2 to 3 feet maximum) if planting cannot be limited to grass. In addition, avoid decorative planting on the exterior side of the fence for a distance of 2 feet, if possible.

2-2.1.4 **Gates**

Gates must be a size that is sufficient to permit safe and efficient access of passenger vehicles, trucks, semitrailers, and emergency (fire) equipment. The gates must be lockable using a 1/2-inch casehardened steel chain and a padlock with a 1/2-inch casehardened shackle. Other Inspection Service-approved locking devices may be authorized in writing by the INC. The Postal Service provides and installs the locks and chains for these gates. When the gates are closed, the continuous distance between the bottom of the gate and the paved surface must be no more than 4 inches. To ensure proper clearance, the curb may need to be notched to meet the above

criterion. Gates do not need to be designed with both sides using the same type of operation — they can be a combination of slide gate and swing gate. No gate is to be longer than half the width of the road or driveway it serves.

2-2.2 **Secondary Fencing**

Secondary fencing is used to separate mail handling operation areas from employee parking areas at mail processing and delivery-unit-only facilities. Secondary fencing must be constructed of 6-foot high chain-link fencing without a top guard. Other requirements for perimeter fencing apply. Secondary fencing may not be used for perimeter security. At MSBDs used as retail and delivery facilities, secondary fencing is not always practical or necessary.

2-2.3 **Site Signage**

Security signage must be provided at 100-foot intervals, 5 feet above the ground, using Sign 9905-559-2971, which reads “US Property, No Trespassing” (to be installed by the Postal Service). Signage is to be provided at vehicle gates, pedestrian gates, and along the fence of all fenced areas to identify parking regulations, towing enforcement, restricted postal property areas, and the policy that vehicles may be subject to search in accordance with chapter 2 of 39 CFR. The Postal Service provides the proper wording for the signage. The signage is to be designed with 1-inch red lettering on a white background. Department of Transportation (DOT) and directional signage must also be provided for normal traffic control.

2-2.4 **Landscaping (Fencing and Building)**

Trees must not be located closer than 10 feet to the fence and/or building. Depending on the type of trees proposed and their growth pattern, the 10-foot criterion may be increased to 15 to 20 feet or greater. Plants, trees, and shrubs must not provide points of concealment or unauthorized entry to the facility, secure grounds, or Postal Service assets.

2-3 **Security Lighting**

Lighting is the single best security device available to protect employees. Provide basic security lighting to assist in maintaining acceptable levels of facility protection. This includes lighting at:

- a. Entrance gates.
- b. Employee entrances.
- c. Vestibule entrances.
- d. Areas around the building perimeter and perimeter security fencing.
- e. All areas not open to the general public.

2-3.1 Lighting Requirements

2-3.1.1 General

Public parking areas and entries must be sufficiently illuminated (see 2-3.2.1) to be safe and to discourage crime. All breakers or switches on security lighting circuits must have locking devices or must be located in a locked room to prevent manipulation by unauthorized personnel. Inspection Service criteria require exterior light standard fixtures to be mounted at least 15 feet above the finished elevations.

2-3.1.2 Boundary Lighting

Boundary (fence and perimeter) lighting must consist of a series of fixed lights located within the fence line to light the boundary or area from which an intruder could approach. Select fixtures with appropriate light-distribution characteristics to minimize objectionable impingement on properties bordering the facility. This condition may require property boundary light fixtures to be mounted less than 15 feet above finish grade. In sites with relatively large open spaces or landscapes, lighting may be restricted to paved areas and their immediate vicinity. For modular buildings, building-mounted lighting is typically sufficient to illuminate the site; therefore, site lighting is not required.

2-3.1.3 Area Lighting

Area lighting should supplement existing street lighting to provide a maximum level of illumination from a minimum number of fixtures. The system is to be designed to illuminate the entire area evenly, including doorways, structures, and all openings into the structures.

2-3.1.4 Building Face

Lighting should be provided to cover the building faces evenly. Doorways and other openings in the building face must be lighted to eliminate shadows. Note that there are to be no light fixtures at the inspector's entrance.

2-3.1.5 Entrances

Pedestrian and vehicle entrances that are actively used are to be provided with sufficient illumination to permit recognition of individuals and examination of credentials. All vehicle entrances must be lighted so that the entire vehicle, occupants, and contents can be viewed. Doorways and other recesses must be lighted to eliminate shadows.

2-3.2 Lighting Intensities

2-3.2.1 Minimum Requirements

Lighting intensities for protective lighting and other antipersonnel barriers must meet the following minimum requirements:

Location	Minimum Foot-Candles (fc) on a Horizontal Plane at Ground Level
Perimeter*	1.0 (at the base of the fence)
Vehicular entrances	1.0
Pedestrian entrances	2.0
Security-sensitive site areas	2.0
Employee parking and maneuvering areas	1.0
Truck parking and maneuvering areas	1.0
Facility collection box island (snorkel lane area)	1.5 required to meet safety requirements
Customer parking area	1.5

* Lighting should be directed inward from the property line. Lighting must be increased to 2 fc if an exterior security CCTV system is provided. This is based on the worst-case or reflective light conditions (asphalt). In existing facilities, explore the use of infrared luminaries to augment the site lighting for exterior black and white CCTV cameras that are sensitive to infrared lighting.

2-3.2.2 Documentation

The architect and/or engineer (A/E) must document security lighting requirements by providing a point-by-point, computerized photometric plan or other method that demonstrates that appropriate lighting has been planned.

2-3.2.3 Power Circuits

Alternate circuitry must be used in the power circuits so that the failure of any one lamp does not leave a large portion of either the site perimeter or a critical or vulnerable area in darkness.

2-4 Building Utilities

To the extent possible, all utilities are to be run underground. All aboveground utilities, including telephone and electric service, must enter the building at the highest possible location and must be enclosed in conduit from outside the building to the building entry point. A lockable utility room, with entry from within the building only, must be provided for electrical, telephone, and gas utilities.

2-5 Electronic Security System (Exterior Design)

The Inspection Service must provide documentation to support the need for an exterior security system. A full justification, which will include crime statistics and other environmental data, is to be provided in writing by the 10 percent design review meeting; however, the contingency should have been addressed during the site selection. If an exterior security system is required, the Inspection Service is to provide detailed guidelines and assistance on its design.

The exterior security system encompasses the required exterior lighting and fencing with top guard as well as all exterior electronic security equipment (i.e., access control, intrusion detection, and CCTV). When the electronic system is required, there must be sufficient lighting throughout the site so that the cameras can operate effectively and record the required information.

The electrical and the security systems architects or engineers must coordinate their efforts. If there are areas of concern, e.g., lack of or limited coverage, the local inspector in charge will provide alternatives or designate additional camera locations.

This section is not to be construed as all-encompassing, since it is difficult to determine the extent of the security needed at a facility without conducting a comprehensive survey. Refer to 3-2 for further information on security systems.

2-5.1 **Security CCTV System**

When a security CCTV system is used, the exterior lighting level must be 2 fc. Recording is to occur 7 days per week, 24 hours per day. Systems that do not allow recording are not permitted to be installed. Monitoring will occur as needed.

The security CCTV system is separate from the CIS, but is connected to the CIS for monitoring purposes. Normally, the cameras provide a black-and-white picture, have an automatic iris and pan-tilt-zoom (PTZ) control lens, and are installed in environmentally controlled, domed housings. The domes must be designed to eliminate the ability to observe the camera operation and location inside the dome. The cameras must be infrared compatible. The cameras are to be mounted on the existing light poles when possible; do not add light poles for the cameras unless no alternative exists. The camera's lens configuration must be able to provide identifiable personnel images as well as read license plate numbers. A separate drawing showing camera placement must be submitted at the 30 percent design review for evaluation. The focal distance and arcs for each camera must be shown by the 70 percent design review submittal.

The CCTV system must cover all pedestrian and vehicle entries into the site and all employee entries into the facility. The system must cover all employee and customer parking areas, including business mail entry unit (BMEU), the exterior dock, truck parking and maneuvering areas, vehicle maintenance

facility (VMF) operating areas, warehouse operations, driver training areas, employee patio and/or smoking areas, and maintenance areas.

2-5.2 **Intrusion Detection System**

The exterior security system is an extension of the interior security system described in 3-2.2. In high-risk locations, the intrusion detection system (IDS) may be extended to the perimeter of the property. The building IDS must extend to a VMF. The CCTV system must be installed at a VMF to deter theft and to be used in verification of alarms or observation of high risk and remote areas.

2-5.3 **Access Control System**

When an access control system extends to the exterior of the building and parking lot, it must be designed to operate all exterior gates (pedestrian or vehicular) unless the inspector waives this requirement. If there is a VMF on-site, the access control system must extend to that building as well.

Employee parking lots must have both a traffic arm and a manual gate at baseline security facilities and a motorized gate at high-risk locations. The vehicle access readers can be designed around an external device mounted on a car or badges issued to the employees. Depending on other risks, equipment such as horizontal bars may be installed over the entry point to limit the size of vehicles entering the parking lot or gaining access to the building.

When requested, fully motorized gates must control entrance to the Postal Service's operational and maneuvering area. Postal vehicles must be equipped with a radio frequency identification (RFID) tag that can be read by a reader 2 meters (approximately 6 feet) away. The tag should be passive (i.e., no battery) and should be mounted on the same side as the reader. It may be mounted either in the window or on the bumper. All HCR employees must be issued an RFID card along with their photo-identification (ID).

A three-loop detection, security, and safety system is required for both the inbound and the outbound lanes of traffic. The gate or arm must open automatically on the outbound or secured side to allow free egress. The loop located on the outside or inbound side of the gate is used to determine if a vehicle is present prior to granting access to the parking lot or activation of the access control device.

On the postal operations side, the system must provide a real-time readout in the vehicle dispatch of all postal vehicles and HCR vehicles entering and leaving the lot.

Turnstiles, auto-closing gates, or motorized gates are required for all pedestrian entrances. Turnstile-type gates are used in high-risk areas or where there is a problem with employee tailgating. Auto-closing and motorized gates are used in lower risk areas, for accommodating the handicapped, or at facilities where employees are security conscious. At high-risk locations, additional entry security measures may be implemented.

All access points must be equipped with an intercom and CCTV camera; in addition, a guardhouse may be required at the truck entrance. There may be multiple monitoring points, depending on the access point. At the truck entrance, personnel at both vehicle dispatch and the security control point may monitor and handle the exception reports — that is, notification by the system that an individual is in need of assistance at an access control point due to some technical failure of the card and/or reader — depending on the time of day. At the administration area entrance, both the receptionist and the designated security control point personnel may handle visitors and exception reports.

2-6 Guardhouses

Guardhouses are to be provided when directed by the Inspection Service. The design must be simple and functional. Prefabricated units are acceptable.

2-6.1 Location

A guardhouse is normally provided at the truck and carrier entrance gates of a 24-hour operating facility that has postal police coverage. Unless requested by the Inspection Service, guardhouses are not required at entrances to employee parking lots. Instead, employee lots may be provided with security surveillance from adjacent guardhouses and/or CCTV cameras. When a single gate is used at an entrance, the guardhouse is to be located on the inbound side of the roadway. When double gates are provided, the guardhouse is to be located on a raised island separating inbound and outbound traffic.

2-6.2 Architectural Design

Each guardhouse must allow observation in all directions. Each side of the unit adjacent to traffic lanes must be provided with a door that has an integral glazed light and adjacent wall-mounted, pass-through window. Glazing must be tinted so as to prevent easy visibility from the exterior into the interior space. The inside floor must be raised a minimum of 30 inches so the postal police officer can readily observe approaching vehicles and their occupants while maintaining surveillance of the general maneuvering area. The raised floor also allows for operating capability during adverse weather and flooding conditions. Six-inch diameter, concrete-filled bollards (3 feet-6 inches high) or metal highway barriers (2 feet high) are to be placed at all four corners of the guardhouse for protection from vehicle damage. In high crime areas, bullet-resistant materials may be required.

2-6.3 Heating, Ventilation, Air-Conditioning, and Plumbing

The guardhouse is to be provided with heating and air-conditioning as dictated by local climatic conditions. In addition, the guardhouse is to be

furnished with at least one 10-pound, dry chemical, multipurpose fire extinguisher. Toilet facilities are provided only if specifically directed by the Inspection Service.

2-6.4 **Electrical**

The guardhouse is to be provided with adequate interior and exterior lighting, including low-level fluorescent light fixtures controlled by wall switches and dimmers. Electrical convenience outlets are to be provided. Intercom and telephone service are not provided unless required by the Inspection Service; however, three 1-inch conduits with pull wire are to be provided for potential future communications use. If security systems are anticipated or provided, conduits are to be installed as directed by the Inspection Service.

2-7 **Storage Buildings**

An exterior storage building is used to house lawn and garden equipment. The building must be located so that there is a clear line of sight to all four sides of the building without landscaping blocking the view, and must not be located adjacent to the facility or perimeter fence.

The framing of the exterior storage building must be 2x4 wood or 22-gauge steel studs. The floor is to be constructed of 2x6 (minimum) joists (pressure-treated if applicable) with 3/4-inch plywood decking or a 4-inch concrete slab-on-grade. The walls are secured to the floor and/or foundation using 1/2-inch threaded fasteners. The exterior walls and roof sheeting must be constructed of 5/8-inch plywood, and exterior walls are to be clad in siding. As an alternative, 3/4-inch T-111 may be used for the exterior cladding. The roof must be covered with 30-pound felt and three-tab shingles. The access ramp must be constructed of the same material as the floor concrete or pressure-treated wood. Windows and skylights are not permitted in storage buildings.

The door must provide a 4-foot opening. The door must be constructed of 3/4-inch exterior grade plywood, with all edges of the frame and door reinforced with 2x4 wood. A reinforcing X-brace must be installed the full height and width of the door. A full-length piano hinge must be installed. A heavy-duty deadbolt locking device or a padlock and heavy-duty hasp must be used to secure the door. If a hasp is used, it must be through-bolted using 3/8-inch carriage bolts, with the carriage head located on the exterior of the door and frame.

3 Security Requirements for Building Components

This chapter details the technical requirements for various building components or elements. For further information on where and when specific security measures are required, refer to Chapter 4.

3-1 Security Devices

3-1.1 Security Grilles

All openings that equal or exceed 8 inches by 8 inches must be secured with a security grille. Grilles must be fabricated of minimum 1/2-inch diameter cold rolled steel bars spaced 8 inches on center (OC), which are welded to minimum 1/2-inch diameter cold rolled steel bars 8 inches OC. The bars must be framed with minimum 1/8-inch by 1-inch flat stock in a rectangular or circular pattern. Grilles must be securely fastened to the structural framing around the opening with welded or nonremovable fasteners spaced no more than 6 inches apart.

3-1.2 Security Fasteners

All security devices must be installed using security fasteners to eliminate easy removal. Security fasteners include one-way screws, bolts, nonremovable pins (NRPs), and/or welds.

3-1.3 Security Window Treatment

The contractor must provide a letter of certification from the manufacturer or supplier, with the shop drawings, to the contracting officer stating that current standards for security window treatment have been met. See 3-3.4 for further information on the use of security treatments in window design and placement.

3-1.3.1 Security Film

Security film consists of a minimum 0.007-inch (7 mil) vinyl film. The security film must wrap in a "J" around the edge of the glass. The security film must be installed on the inside surface of the exterior piece of glass.

3-1.3.2 **Burglar-Resistant Glazing**

Burglar-resistant glazing must be as follows: for baseline security, use a glass laminate of 1/8-inch glass, 0.030-inch vinyl film, 1/8-inch glass, 0.030-inch vinyl film, and 1/8-inch glass or any combination to make a total thickness of glass laminate of 3/8-inch plus 0.060-inch (60 mil) vinyl film as long as the film is sandwiched between two layers of glass. The glass must be tempered, tested, and certified to meet the minimum Class III level of American Society for Testing and Materials (ASTM) Standard F1233 or Underwriters Laboratory (UL) Standard 972. For high security, bullet-resistant or blast-resistant glazing may be required as appropriate.

3-1.3.3 **Polycarbonate**

Reserved for future information.

3-1.3.4 **Blast-Resistant Glazing**

Reserved for future information.

3-1.4 **Bullet-Resistant Material**

Bullet-resistant material must meet the UL threat level SSA (super small arms) or the National Institute of Justice (NIJ) Standard 0108.01 level III-A, using the testing methods of American National Standards Institute (ANSI)/UL Standard 752 or ASTM F1233. These requirements must be met in screenlines, walk-up windows, drive-up windows, and all wall assemblies requiring bullet resistance. The same criteria apply to all framing associated with the windows, sidewalls, doors, and doorframes. The general contractor must provide a letter of certification (with shop drawings and submittal cut sheets) showing how the current standards will be met.

3-1.5 **Hardware**

3-1.5.1 **Door Butts and Hinges**

Door hinges exposed to the public, usually those on outswinging exterior or security doors, must be heavy duty, commercial-grade, ball bearing security stud hinges with nonremovable pins; a commercial-grade continuous hinge is acceptable as an alternative. Outswinging storefront door hinges must include nonremovable pin hinges, fixed-pin hinges, or center pivots. For existing hardware, other Inspection Service-approved methods are available to convert the hinge to meet security requirements.

Specialty doors as described in 3-3.5.3.7 through 3-3.5.3.10 are required as a minimum to have security hinges as described above.

All setscrews must meet security fastener criteria described in 3-1.2.

3-1.5.2 Thresholds

Security thresholds or similar devices must be installed on all exterior and public lobby doors (e.g., wicket doors) leading to the workroom. The clear space between the bottom of the door and the adjacent surface must not exceed 1/8 inch. These devices must meet ADA and Handbook RE-4 criteria.

3-1.5.3 Vision Lens (Peephole)

A vision lens with 190 degrees of view must be installed in any door that provides public or customer access, such as wicket, postmaster, BMEU, pedestrian, and/or exterior LOG and CIO, if the door is without a glass light or adjacent window.

3-1.5.4 Locks

All exterior doors must have a lock with deadbolt or approved equal locking capability. All locks with a latch bolt must be equipped with a deadlocking latch feature. When specifying locks, use ANSI series lock numbers to obtain the proper type of lock for the function desired. The locks must meet all federal handicap accessibility standards. All mortise locksets, whether or not required for security, must be grade one, commercial standard locks per ANSI/BHMA (Builders Hardware Manufacturers Association) A156.13. Unless specified, all interior nonsecurity locksets may be cylindrical locks (bore lockset) as specified in ANSI/BHMA A156.2. The criteria in ASM 273.44 also apply. Appendix D contains an approved list of panic style entry and exit devices and high security devices.

3-1.5.5 Mortise Locks

Mortise locks for security must adhere to ANSI/BHMA A156.13 standards and must have a deadbolt with a minimum throw of 1 inch.

3-1.5.5.1 F15 Hotel Function Lockset (ANSI Standard)

The following is quoted from the ANSI standards: "Latch bolt operated by a key from outside or by rotating inside lever. Outside lever is always inoperative. Deadbolt projected by turn from inside and all keys except emergency and display key are shut out. Auxiliary dead latch. Indicator button. Rotating inside lever retracts both bolts." (**Note:** This hardware set must be specified with a standard cylinder, not a hotel lock cylinder. The lock must be ordered with a lever handle to meet handicapped requirements.)

3-1.5.5.2 F20 Apartment Corridor Door Lock (ANSI Standard)

The following is quoted from the ANSI standards: "Latch bolt operated by lever from either side, except when outside lever is made inoperative by a stop or mechanical means other than key. Deadbolt operated by key outside or turn inside. Key outside operates both bolts. Deadbolt has 1-inch (25.4 mm) throw. Rotating inside lever retracts both bolts. Latch bolt is deadlocked when outside lever is made inoperative or when the deadbolt is projected. When deadbolt is retracted, lever is unlocked by stop or mechanical means other than key." (**Note:** The lock must be ordered with lever to meet handicapped requirements.)

3-1.5.6 **Cylinder Security Collars**

Cylinder security collars must be provided on all exterior locksets unless other Inspection Service-approved security is incorporated into the locksets. This prevents the cylinder from being wrenched from the lock. If removable core lock cylinders are used, all designated exterior doors, grilles, and rolling doors must have a device installed, in addition to the security collar, to prevent the cylinder from being removed when the door is closed.

3-1.5.7 **Exit-Only Hardware**

The only exit devices that are authorized for exit-only doors are ones that interlock the door and frame; provide a deadbolt that automatically relocks when closed; or have an automatic relocking three-point locking system (see Appendix D for approved devices). Do not provide entry hardware on exit-only doors.

Each exit door designated as emergency egress only is to be equipped with a local 120-decibel (dB) audible alarm mounted above the door. It operates on 110 volts alternating current (Vac) and has a 30-minute battery backup. The battery is to be wired for a continuous charge. The door is to be provided with a sign indicating that the alarm will sound when the door is opened. The sign must also state "Emergency Exit Only — Reentry Prohibited."

In addition, in facilities with workrooms larger than 50,000 square feet that have a security control room, provide a remote alarm and a display showing the fire door locations. This display should also be located in the same room as the fire and sprinkler alarm panels. If there is no security control room, the signaling and display equipment must be housed in the tour supervisor's office.

Delayed exiting devices are not authorized for use in postal facilities. If additional security is necessary at an egress door, then a CCTV camera, video cassette event recorder, and CCTV monitor are to be used instead. Each time the door is opened, it will trigger the video recorder to take a photograph of the person using the door. Also, opening the door will trigger an audible alarm. The monitoring equipment must be housed either in the tour supervisor's office or, if a security force is present, in the designated control room.

3-1.5.8 **Padlock, Chain, and Slide Bolts**

The Postal Service supplies the 1/2-inch casehardened steel chain and 1/2-inch casehardened shackle and case padlock as listed in Publication 247, *Supply and Equipment Catalog*. The casehardened chain and casehardened shackled padlock are to be used to secure double acting impact doors and the truck gates. A single impact door can use a chain and padlock or a heavy-duty slide bolt, 1 inch in diameter and at least 15 inches long, or a double-keyed deadbolt. Cane bolts are incorporated as daytime security on all impact doors. A 2-inch diameter eyebolt is to be installed on an inside vestibule wall for daytime storage of each chain and padlock.

3-1.5.9 **Storefront Locking Devices**

An Adams Rite deadbolt lock model number 1891-050 or an approved equal is to be provided for all storefront doors. This hardware is to include an interlocking deadbolt device, requiring a 180/360 turn of the key to operate the deadbolt, and an armored faceplate. Where emergency exit devices are required, see Appendix D for the list of approved devices.

3-1.5.10 **Access Control Devices**

The following access control devices are for one- or two-door access and must meet Postal Service access standards and other criteria as specified in ASM 273.44. See Appendix D for approved devices for one- or two-door access.

3-1.5.10.1 **Mechanical Devices**

Mechanical devices, also known as mechanical cipher or combination code locks, are not electrically assisted security devices; typically, they use a pushbutton mechanical operator. These types do not usually meet deadbolt criteria as set forth in ASM 273.4 or section 3-1.5.4 of this document. They provide only one code for use by all individuals. Mechanical access control devices may only be used on nonsecurity doors.

3-1.5.10.2 **Electromechanical Devices**

Electromechanical devices are electrically assisted mechanical devices. Typically, they use an electrically operated opening device, such as a time lock and/or keypad in combination with an electrical strike or magnetic lock. See Appendix D for approved devices.

3-1.5.11 **Keying**

Only postmasters and installation heads or their designees may carry a master key, **except** at installations having a security force, where one or more master keys are issued to the ranking security supervisor for use by security officers in emergencies. "Grandmaster" keying for the whole building is not permitted. Master keying is permitted except for the locks to locations requiring individual accountability of the contents of the room. Such locations include the door to stamp storage rooms, the registry cage, and the rolling grille surrounding the open merchandise in the postal retail store.

3-1.5.11.1 **Construction Keys and Inserts**

Permanent cylinders with construction inserts must be assembled into and shipped with all locksets. Construction keys must be shipped with the door locks. The construction insert-extractor and the facility permanent keys are to be provided to the postmaster. On completion of construction, the contractor must collect all construction keys and, in the presence of the postmaster or designee, remove the construction inserts from the lock cylinders activating the building keying system. The contractor provides all construction keys and inserts to the postmaster or designee, who must destroy the construction keys and inserts in the presence of a witness.

3-1.5.11.2 Retail Counter Keys

The retail counter is shipped to the contractor on-site with all its keys. The contractor is responsible for providing to the postmaster all locks and keys for the retail drawers and cabinets as well as for the vault drawers and cabinets. The postmaster must prepare a receipt for the locks and keys. These keys must be identified and packaged by the contractor after the locks are installed in the drawers but before the casework is installed in the facility. The postmaster must maintain control of these keys to prevent potential problems with loss. All retail counter locks must be individually keyed except for the prepackaged postal store stock storage areas, screenline casework, and trash receptacle locks. Counterline cabinets designed to secure registered mail must be individually keyed.

3-1.6 Wire Fabric

Wire fabric must be manufactured from 11-gauge steel wire that is spaced at 1-1/2 inches OC in each direction. The wire must be welded or woven together.

3-1.7 Security Screen

Security screen is made up of number 13 cold rolled flattened expanded steel that is spot welded to a frame of 1/2-inch steel angles.

3-1.8 Security Mesh

Security mesh consists of number 9 flattened expanded steel with a 1/2-inch diamond pattern. It is a type of security screen used for high security.

3-1.9 Stamp and Other Accountable Document Storage Units**3-1.9.1 Vaults**

Vaults are used when large quantities of stamp stock need to be stored in facilities that do not operate 24 hours a day or when registered mail is of such value or importance that the items need to be secured even in the daytime. A vault must also be used if a facility would need 5 or more security containers to store stamp stock and other accountable papers. Vaults are required for special circumstances such as storage of classified documents, storage of high value registry pieces, consolidated remittances, consolidated banking, or evidence rooms for the Inspection Service. In stamp stock storage facilities, stamp depository network (SDN), or stamp distribution offices (SDOs), security will be guided by future instructions, which will be recommended and coordinated by Headquarters Inspection Service.

3-1.9.1.1 Standard and Modular Vault Construction

Vaults must either be constructed in accordance with Postal Service *Standard Detail Library* vault details for an 8-inch wall or 12-inch wall; or must be UL-certified prefabricated modular vaults meeting UL 608 Class M requirements. The vault door must meet the criteria found in 3-3.5.3.12.

3-1.9.1.2 Intrusion Detection System

The vault must have an intrusion detection system that uses external area sensors where practical and a vibration-type sensor on the wall to detect any attack on the wall. The sensors are to be tied into the building's IDS or remote transmitting burglar alarm system. For those sites where the alarm's control panel is to be installed in the vault, design requirements can be found in the *Standard Detail Library*.

3-1.9.1.3 Stamp Stock Storage

If the vault is used exclusively for storage of stamp stock in a retail operation, a cage or sliding glass door must be installed to separate the main stamp stock area from the area containing employee credits and registered mail. The interior divider that separates bulk stamp stock from employee accountable property is to be constructed of woven wire fabric with a self-closing, sliding, lockable gate. An alternative would be an aluminum, sliding, storefront-type, tempered glass door and frame with a hook keyed lock. The security barrier, including the door, must be installed from floor to roof and from wall to wall without gaps. The contractor must provide a self-closing, self-locking system for the entry and ensure that the hardware is fully secure when closed.

3-1.9.2 Security Containers (Safes)

Security containers are used to store all money, stamp stock, registered mail, national security documents, evidence, and other accountable items identified by the Inspection Service. There are seven different interior configurations; however, all have the same exterior dimensions: 31-1/2 inches wide, 26-3/4 inches deep, and 39 inches high. A minimum clear area of 36 inches by 36 inches is required in front of each security container; this is in addition to any space necessary for movement around the container when the container door is open.

3-2 Electronic Security Systems

3-2.1 Security CCTV System

The security CCTV system consists of CCTV cameras, housings, video and power cable, control panel, switchers, multiplexers, monitors, and recorders. In accordance with the ASM, it is Postal Service policy to record all CCTV systems. The system must be designed so that it is capable of recording and/or being monitored 24 hours per day, 7 days per week. The video recording is through the use of a multiplexer and video home system (VHS)

time-lapse video recorder, set to record in 12- or 24-hour mode. To keep the recording system effective, each multiplexer and switcher will serve no more than 8 cameras.

Cameras located in spaces accessible by the public after operational hours must be enclosed in environmental housings (for exterior cameras) or in vandal-resistant housings (for interior cameras) and must have armored cabling.

The security CCTV system serves to protect postal employees and to deter theft of postal assets and mail in postal custody. When used in conjunction with an IDS or access control system, it serves to verify alarms, assess all entries and exits to the building, or assist in identification of personnel attempting to gain access to the facility.

3-2.2 Intrusion Detection System

In a customer service environment, the IDS consists of a Radionics Omegalarm system which includes a security control panel, keypads, internal siren, optional cellular phone backup, motion detectors, and door contacts. All signal wiring must be run in conduit. The IDS control panel is required to have 20-ampere (amp) dedicated electrical service, an earth ground, and a dedicated telephone outlet and line to dial the remote monitoring station. This equipment or panel must be in a secured lockable area such as a telephone closet or the accountable paper room. A keypad must be provided at the designated employee entrance door to energize and de-energize the IDS. The system is to be purchased and installed by the contractor.

The terms "IDS" and "burglar alarm" generally refer to the same system, except in P&D facilities, where the former reports locally and the latter reports off-site. In a P&D environment, the IDS is to be either a stand-alone computer or part of the access control computer. It is used to monitor high value areas locally and must be connected into the security CCTV system.

A detailed drawing of the IDS layout must be provided to the Inspection Service through the project manager at or before the prefinal inspection.

3-2.3 Electronic Article Surveillance

Electronic article surveillance (EAS) panels are used to detect specially tagged merchandise and other postal property in order to deter theft. EAS panels are mounted over recessed floor junction boxes, and must be placed so as to channel the flow of circulation through the panels prior to points of egress. The EAS control box must be mounted within 20 feet of the nearest panel, 8 feet above the finished floor (AFF) on the workroom side. A dedicated 20-amp circuit must be provided for the panel. The system must be wired to the security CCTV system. See Handbook AS-503, *Master Specification*, and *Standard Detail Library* for manufacturers' and required installation methods.

3-2.4 Access Control System

The access control system must provide positive control over employees entering a facility. It must prevent piggybacking or tailgating of employees without human intervention. This is usually accomplished through the use of turnstiles, but may also be accomplished through a pair of doors and some specialty sensors. The entryway must be able to meet all handicap accessibility requirements and life safety code for egress purposes. See 3-1.5.10 for access control hardware devices.

3-2.4.1 System Requirements

The access control system must meet the following requirements:

- a. It must consist of stand-alone distributed smart panels that make the access decision and must have a stand-alone storage database capability that is downloaded routinely to the central computer database. The master computer or any other computer unit that has the proper password must be able to query it. The unit must have different levels of password control to access the data or program the unit.
- b. The card system must use a proximity or RFID card in order to meet Handbook RE-4 and ADA requirements.
- c. It must use a relational database that can access the database fields of Postal Service personnel records.
- d. It must have anti-passback capabilities to prevent multiple use of the card in a short time frame. This can be accomplished through read-in and read-out card readers with a timeout feature that prevents multiple uses at the same reader within a user-defined time frame.
- e. It should have an integrated, computerized, digital photo-identification system and be able to share a common database; at minimum, it must have the capability to integrate with an external photo-identification system.
- f. It must have an integrated intercom and CCTV camera at the employee entrance and exit to handle exception reports.
- g. It must be able to work in a local area network (LAN) and/or wide area network (WAN) environment and allow access from other computers on the network. The software must operate as a 32-bit processing system and work on such platforms as Windows 95 or NT.
- h. The software must be capable of providing an audit trail of all who have accessed the database and all changes made by an individual.

3-2.4.2 Photo-Identification System

The photo-identification system must integrate with the access control system. It must be able to work on a LAN and/or WAN environment, must be able to be accessed remotely, and must use a printer that laminates or prints the picture onto a plastic RFID card. It must provide some type of watermarking or computer-generated hologram to prevent duplication of the photograph printed on the card. It must be able to work with a digital photographic camera so that remotely taken portraits can be input. It also

must be able to share the same database as the access control system and Postal Service personnel records database.

3-3 Security Envelope

The security envelope is the physical separation between public space and restricted postal space. The security envelope may coincide with the building's footprint, or a portion of it may follow an interior security wall; it also encompasses the roof and other horizontal surfaces. The various design elements within and around the security envelope must be carefully designed to ensure that they do not offer a breach in security.

3-3.1 Security Walls

Walls and demising partitions must be constructed soundly and strongly enough to discourage illegal entry. Any openings greater than 8 inches by 8 inches must be provided with security grilles in accordance with 3-1.1. If walls, partitions, or removable ceilings in existing facilities are found to have security deficiencies, the Postal Service must ensure that they are corrected.

3-3.1.1 Exterior Walls

Typical exterior materials such as masonry, concrete, stucco, and wood siding are usually adequate for security purposes. Materials such as exterior insulation and finish system (EIFS) and vinyl siding must be applied over a substrate of minimum 5/8-inch plywood or oriented strand board (OSB); 3/8-inch masonite; or plaster lath in order to meet security requirements. Windows in the exterior envelope must meet the requirements of 3-3.4.

The building's exterior envelope, including all exterior walls, eaves, soffits, and overhangs, must be constructed in a manner that prevents unauthorized access into the building.

3-3.1.2 Interior Walls

An interior security or demising wall must have (at a minimum) nominal 2-inch by 4-inch wood or 3-5/8-inch, 20-gauge metal upright studs spaced 8 inches OC and covered on both sides with 5/8-inch gypsum board. As an alternative, the studs may be spaced 16 inches OC if a layer of 5/8-inch plywood, number 13 cold rolled flattened expanded metal, or a 22-gauge cold rolled steel sheet is installed under the gypsum board on the nonworkroom side. Wall continuity for the retail lobby, workroom, vestibules, box lobby, building and grounds room, stamp storage rooms, and specified administrative areas must be maintained from the finished floor to the underside of the structural slab above or to the roof deck. The security wall above an accessible suspended ceiling must be constructed (at a minimum) in accordance with the requirements in this section. Security wall construction is also required for the header space above any door or grille providing access to the workroom or the postal retail store.

3-3.1.2.1 **Blank Panels in Box Lobby (Rent-a-Box) or Self-Service Vending Area Walls**

The public lobby side of post office box blank panels and any unoccupied rough openings in the self-service postal equipment area walls must be constructed of 3/4-inch plywood. Gypsum board or other material may be added for aesthetics. Two-by-four wood stud framing is required to anchor the plywood blank panels. The cap and base are to be horizontal 2x4 studs with vertical 2x4 studs spaced no more than 24 inches OC. The plywood panels must be secured to the 2x4 frame, which must be fully secured to structural elements of the walls, floor, and ceiling.

If a parcel drop and/or large bundle drop is used, the surrounding walls must be constructed as described in this section. All parcel drops are to be enclosed in a security wall in accordance with 3-3.1.2.

3-3.1.2.2 **Post Office Boxes — Box Lobby (Rent-a-Box)**

The number 5 post office box needs additional security on the workroom side, because this box contains a drawer that, if removed, leaves an opening large enough to provide access to the workroom. One acceptable solution is to mechanically fasten a ± 2 -inch by 1/4-inch horizontal security bar across the opening just below the lip of the backside of the drawer; position the bar to prevent the drawer from being removed. Another possibility is to use a latchable rear door. See Handbook AS-503 and section 4-1.4.4 of this handbook for additional information.

3-3.1.2.3 **Temporary Barriers**

Temporary barriers are used in renovation, alteration, remodeling, or expansion projects. The general contractor, his employees, subcontractors, laborers, or representatives must be issued security clearances in accordance with ASM 272.32. Phasing schedules are to be designed and provided to ensure uninterrupted security for postal employees, the mail, and postal assets for the full duration of the project. Temporary walls are to be constructed using a minimum of 5/8-inch plywood or OSB secured to studs spaced at 16 to 24 inches OC from the floor to the underside of the permanent structure above (roof deck or floor slab).

3-3.2 **Security Ceiling**

A security ceiling, meeting the construction criteria in 3-3.1.2, may be used to prevent access to the secured area. Security wall construction must extend from the finished floor to the underside of the security ceiling. If a security ceiling is used, a dropped ceiling may be installed beneath it for aesthetic reasons.

3-3.3 **Roof**

3-3.3.1 **Roof Penetrations**

3-3.3.1.1 **Openings**

Skylights, clerestory windows, light monitors, atriums, open courts, light courts, windows, and all other openings that penetrate the security of the roof must be approved by the Inspection Service during the design phase. Approval may include requirements for appropriate security measures such as the use of security bars, grilles, or burglar-resistant glazing. Skylights, clerestories, etc., should be fastened from within the building to prevent unauthorized removal and entry. If this is not possible, nonremovable fasteners must be used.

3-3.3.1.2 **Heating, Ventilation, and Air-Conditioning**

All openings larger than 8 inches by 8 inches must have security bars, grilles, grating, or similar Inspection Service-approved security devices to prevent entry into the building from the roof. Similar security measures must be made for heat or smoke venting and other utility openings that penetrate the building roof.

3-3.3.2 **Roof Access**

When a permanent means of access to roof-mounted equipment is required, it must be from the building's interior, preferably by way of a permanent stairway and door leading onto the roof from an elevated portion of the building. All roof-access doors require double-cylinder deadbolt locks and must meet baseline exterior door and doorframe requirements. Roof hatches must be manufactured from a minimum of 16-gauge steel and must be lockable from the inside only. A preferable method for securing roof hatches is by a key-operated padlock. All interior corridors, including all points of entry to the corridor, leading to the roof-access ladder or stairway must be provided with deadbolt lock security. In one-story buildings, it is preferable to have the roof access hatches in the building and grounds room.

Ladders for roof-top access should not be mounted on the building exterior; however, if there is an externally mounted roof ladder, a security ladder cover must be provided to cover the first 10 feet of the ladder. The ladder cover is to be secured with a padlock. The ladder cover must extend to the building face to prevent climbing on the rear of the ladder.

3-3.4 **Windows and Window Frames**

3-3.4.1 **Security Levels**

3-3.4.1.1 **Requirements for Baseline Security Level**

For security reasons, placement of windows is discouraged in workrooms, storage rooms, equipment rooms, toilet rooms, locker rooms, or utility rooms. However, if windows are provided in those areas, the sill must be at least 8 feet above the finished floor surface or any other surface that provides

access. (Section 3-3.4.3 contains requirements for windows located lower than 8 feet above finish grade.) Generally, these windows must be small or have mullions that limit the amount of glass. In addition to screening, all windows must be installed in a manner that prevents unauthorized removal and entry.

If operable windows are installed in the workroom or nonadministrative areas, the windows must have locking devices and screens to reduce internal theft concerns. It is preferable to limit the window such that it cannot open more than 4 inches; if the window opens more than 4 inches, a security grille is required (see 3-1.1).

3-3.4.1.2 **Requirements for High Security Level**

If a higher level of security is required, fixed glass with a heavy metal frame must be used. Space the mullions 8 inches or less on center, both horizontally and vertically, to prevent the passage of a person's body. The windowpanes must contain burglar-resistant glass (see 3-1.3.2).

Bullet-resistant, stronger grades of burglar-resistant, and blast-resistant glass are all high security devices and may be required as appropriate.

3-3.4.2 **Storefront Windows**

For nighttime observation, the storefront glass area must provide a clear view of the box lobby, self-service vending area (SSVA), and, if possible, the retail service lobby. In areas identified as having a high crime rate, the storefront glass should be upgraded to security film or burglar-resistant glazing as defined in 3-1.3. The Postal Service does not usually install operable storefront windows; however, if they are utilized, a security key locking device must be provided. Neither glass bricks nor glass blocks are acceptable for lobby windows unless they provide unrestricted visibility. If interior glass doors control access to the full-service counter area, vertical blinds or some other means must be installed to provide closeout security.

3-3.4.3 **Nonstorefront Windows**

Nonstorefront windows are defined as those windows that are located within the security envelope and provide visibility into secured areas from the exterior of the building or from public spaces. These windows are usually required to have security film or burglar-resistant glazing as defined in 3-1.3, unless their sills are higher than 8 feet AFF. Specific security window treatments for nonstorefront windows are as follows:

- a. For facilities 9,000 square feet or less without open merchandising, vinyl security film is required on windows in the workroom, office, or other windows on the nonpublic side of the security wall unless the window sill is above 8 feet. Security film may also be required on windows in public spaces if the building is in a high crime location.
- b. All facilities larger than 9,000 square feet and all facilities with open merchandising, regardless of building size, must use burglar-resistant glazing if the window sill in a nonpublic space is lower than 8 feet AFF.

If approved by the Inspection Service, grilles, security screens, glass bricks or blocks, and other security items may be incorporated into the design.

Windows located in a second story or above (not accessible through public areas, parking structures, or other means) usually do not need burglar-resistant glass or other security devices. These windows may need burglar-resistant glazing or other security devices only if the facility is in a high crime or potentially high crime rate area.

Interior glass lights that are located within a security wall must meet the same security requirements.

3-3.4.4 **Window Frames**

The window frame design is to be constructed with rigid sash material that is anchored from the inside and is resistant to being pried open. The frame design must allow the sash or glass to be removed only from the inside of the building. Weather stripping must be designed and integrated into the frame to prevent removal of the window from the exterior. Flow-through air (trickle air) ventilator frames are preferred over operable windows.

3-3.5 **Doors and Doorframes**

3-3.5.1 **Door Glazing**

The glazing in all public lobby doors must conform to the applicable building and safety codes. When an exterior door is not equipped with a double-keyed deadbolt lock, the view pane must consist of burglar-resistant glass or must be covered on the interior side using security mesh; flattened, expanded steel screen; or wire fabric. Door integral light or sidelight frames must be installed with the fasteners on the inside (secured side) of the door.

3-3.5.2 **Door Construction Materials**

All exterior doors with direct entry into the building, excluding the post office box, SSVA, and retail service lobbies, must be minimum 16-gauge steel (reinforced hollow metal core) or 1-3/4-inch solid wood core. Pressed wood other than OSB is not adequate for the center material. Louvers are discouraged; however, if they are used they must have security grilles in accordance with 3-1.1 and must be secured to prevent removal from the exterior. Full-glass lobby doors may be used if their top and bottom frames contain deadbolt locks and the glass is 1/2-inch thick and fully tempered. All doors must be precut at the factory and provided with the appropriate reinforcing for the type of lock slated for installation (mortise or bore set).

3-3.5.3 **Door Types**

3-3.5.3.1 **Impact Traffic Doors (Vestibule Doors)**

Impact traffic doors (interior and exterior) at open mailing platforms and carrier loading platforms must be equipped with cane bolts at both top and bottom, and must have a 2-inch sleeved hole to accommodate the casehardened chain as listed in 3-1.5.8. The cane bolts must be at least

5/8-inch round steel and 18 inches long from tip to elbow. The cane bolt must drop into a dustproof sleeved receptacle to a depth of at least 3 inches installed flush with the floor. A 2-inch diameter eyebolt must be installed on an inside vestibule wall for daytime storage of each chain and padlock.

If single-leaf mailing and/or carrier vestibule doors are installed, they must use a 1-inch thick diameter by 24-inch long casehardened lockable steel slide bolt mounted on the door that slides into the steel doorframe.

A list of approved lightweight vestibule (impact) doors is contained in Appendix E.

If an oversized pedestrian door is used as a mailing and/or carrier vestibule door in lieu of an impact door, as is found in some SSBD plans, it must meet the requirements in 3-3.5.2.

3-3.5.3.2 **Automatic Doors**

All automatic doors are required to have an interior on/off switch located remotely from the door. Security consistent with the door's operational use is to be provided as discussed in 3-3.5.2 and 3-3.5.3.1. A deadbolt or equivalent nighttime security is required for automatic doors as is required for manual doors.

3-3.5.3.3 **Sectional Overhead Doors**

Sectional overhead dock doors (coiling or panel) must be constructed as listed below:

- a. Any glass light in the door must not exceed 8 inches by 8 inches. If the glass light exceeds this limit, it must be manufactured in accordance with the requirements of 3-1.3.2 or be covered by security bars.
- b. The door must be equipped with both a daytime and a nighttime lock for security. The nighttime lock must be a slide-type deadbolt lock that can be padlocked from the inside. The lock must connect the door to the roll-up frame.
- c. To ensure that all roll-up enclosure housings, rails, and tracks are adequate to prevent unauthorized removal, they must be heavy industrial grade, rather than home or light commercial grade.
- d. All operating mechanisms must be located on the secure side of the wall or enclosed with an appropriate security housing of 16-gauge steel as a minimum.
- e. Doors with 16-gauge steel skin may be sectional doors, roll-up, or coiling door types.
- f. Doors with 20/24-gauge steel skin are manufactured as a sandwich of steel panels and an insulation core. The 20-gauge steel panel is located on the exterior face, and the 24-gauge steel panel is on the interior face. These doors are typically roll-up or sectional doors.
- g. Doors with fiberglass or polycarbonate skins are manufactured with insulated double walls that have a 1/4-inch fiberglass exterior skin and a 1/4-inch vinyl and/or polycarbonate interior skin that is smoke retardant and will not support a flame when the source is removed. Any

smoke generated from their burning must not be toxic. They are typically roll-up or sectional doors.

All alternatives must equal or exceed these criteria. A certification letter, including shop drawings and specifications, must be submitted for approval and verification of all exterior sectional overhead doors.

3-3.5.3.4 **Sectional Knockout Doors**

The sectional knockout door is a special type of overhead door that is designed to be knocked out of its frame when hit by rolling stock. Its unique feature is that it can be reinserted into the frame with no damage to the door or frame. It may be used only in 24-hour operational plants with forklifts or other similar equipment, but must be lockable to prevent being pried open. Its wall construction must meet the criteria listed in 3-3.5.3.3. For a list of authorized manufacturers of this type of door, see Handbook AS-503. Manufacturers must submit their doors to Headquarters for approval by both the Inspection Service and Facilities prior to their use in postal facilities.

3-3.5.3.5 **Overhead Coiling Doors**

Overhead coiling doors used in retail spaces must be constructed to equal or exceed 0.125-inch AA-6063-T5 aluminum. All alternatives must equal or exceed this criterion. These doors must have standard sidelocking devices and must be secured at the floor. Doors that exceed 9 feet in width must also have a center locking device. All roll-up housings, rails, and tracks must be installed in a way that prevents unauthorized removal. All operating mechanisms must be located on the secure side of the wall.

3-3.5.3.6 **Retail Folding Grille**

The folding grille is normally used to secure the open merchandise area of a retail facility. It is also used to secure the limited open merchandise area and full-service counters in some SSBD plans.

3-3.5.3.6.1 **Curtain**

The curtain must be constructed of laminated polycarbonate or equivalent plastic material that is set and secured in an extruded aluminum frame. The polycarbonate must be no greater than 5 inches wide and a minimum of 1/8-inch thick. If the folding grille encloses the full-service lobby, including the integrated retail terminal (IRT) counters, the polycarbonate is to be translucent to allow privacy while closing out the cash drawers; if the grille encloses the retail store only, the polycarbonate is to be transparent.

3-3.5.3.6.2 **Track**

The curtain must be supported by a trolley assembly capable of carrying 120 pounds per linear foot. The curves and track are to be constructed of heavy extruded aluminum with a maximum radius of 16 inches on each curve. A security wall above the door is to be provided as part of the framing in accordance with 3-3.1.

3-3.5.3.6.3 Locking

The locking requirements for these doors are as follows:

- a. The lead post must be equipped with a standard mortise lock cylinder on each side of the door. The exterior cylinder must have a security collar. A standard removable core cylinder is not allowed. The leading member of the door must be secured to a full height wall-jamb strike that is secured to a structural steel member. The locking mechanism must consist of a single hook latch. There must be three horizontal pin positions extending from the leading member (one 18 inches from the head, one 18 inches from the floor, and one 3 inches from the locking mechanism). These pins must extend at least 1 inch into the wall strike. This locking device must provide full security from floor to ceiling.
- b. The trailing member post must be free floating top and bottom outside the storage pocket with a cylinder on the exterior side of the post. The trailing member must be equipped with a concealed chute bolt locking device that engages into the track and the floor to a depth of 1-1/2 inches.
- c. Traveling intermediate members are to be located at all curves and on straight sections at intervals not to exceed 8 feet. The intermediate members are to be equipped with concealed locking devices and a control lever (inside only). For enhanced security, the locking devices extend into the floor 1-1/2 inches into dustproof floor receptacles.
- d. The chute bolt (also known as drop pin) is to be manufactured with grade 1045 cold rolled steel, with the bottom 6 inches of the shaft flame hardened and tempered to a 55 Rockwell hardness. The minimum throw of the drop bolt must not be less than 1-1/2 inches and must not extend less than 1 inch into a dustproof receiver.
- e. The trailing post must be pushed back against the pocket door, after it has been closed, and locked in place. The keyed cylinders are specified in Handbook AS-503. The space between the bottom of the door and adjacent floor surface cannot exceed 1/2 inch anywhere along the horizontal surface.
- f. A three-point locking system (top, bottom, and a hook bolt at the center) on both the trailing and leading edge of combined panels may be used. Another alternative is to use a combination of hook bolts, spaced approximately 2 feet apart, that operate in opposing directions, and a pin located at the top and the bottom that protrudes 1 inch into the wall.

3-3.5.3.7 Exit-Only Doors

All doors designated as "exit only" must comply with National Fire Protection Association (NFPA) 101, section 5-1, Life Safety Code. See Appendix D for approved exit devices also meeting the security requirements. These doors must meet door construction criteria as required in 3-3.5.1 and 3-3.5.2. Delayed exiting devices are not allowed in postal facilities.

3-3.5.3.8 Storefront Doors

Storefront doors must meet current industry standards for safety and security. Additional information is contained in the *Retail Standard Designs* and Handbook AS-503.

3-3.5.3.9 Wicket Doors

Wicket doors must adhere to the criteria in 3-3.5.2 and 3-3.5.4 and must be constructed in accordance with the *Standard Detail Library*.

3-3.5.3.10 Miscellaneous Doors

The following doors must adhere to the criteria in 3-3.5.2 and 3-3.5.4:

- a. Mechanical room doors, if they are located on the exterior of the building or within a security wall.
- b. Electrical room doors, if they are located on the exterior of the building or within a security wall.
- c. Communications room doors, if they are located on the exterior of the building or within a security wall.
- d. Building and grounds room doors, if they are located on the exterior of the building or within a security wall.
- e. Employee doors.
- f. Personnel and general records storage doors.
- g. Computer room doors.
- h. Stamp storage room doors.
- i. Postmasters' office doors.

If a glass light is provided in any of these doors, it must be constructed of burglar-resistant glass in accordance with the requirements of 3-1.3.2.

3-3.5.3.11 High Security Doors

High security doors may need to be designed to be bullet resistant or blast resistant and/or to resist forced entry. See the requirements in 3-3.5.2 and 3-3.5.4. Glazing is not allowed in these doors.

3-3.5.3.12 Vault Doors

Provide a General Services Administration (GSA) Class 5 vault door. The manufacturer must replace the MAS-Hamilton dial combination lock with a Sargent & Greenleaf (S&G) 8400 series mechanical combination lock with brass wheels. This S&G lock is rated as a group one lock.

3-3.5.3.13 LOG and CIO Doors

LOG and CIO doors must meet the requirements for exterior doors and doorframes (see 3-3.5.2 and 3-3.5.4). CIO and LOG breakout doors may be 24, 30, or 36 inches wide and must meet other Inspection Service criteria as outlined in this document. The door hardware for these doors is usually supplied by the Postal Service.

3-3.5.3.14 All Other Doors

All other doors not specifically listed above are not required to meet security criteria.

3-3.5.4 Doorframes

At a minimum, all exterior pedestrian doors and pedestrian doors between the workroom and the lobbies must be hung in a 14-gauge steel frame. Doorframes must be solidly attached directly to the wall structure without spacers. Storefront doors must be hung in a heavy-duty frame that is a minimum of 14-gauge steel or 0.125-inch AA-6063-T5 aluminum. The frame must not be capable of being spread with hand tools more than 1/2 inch. Knockdown frames may not be used on any security or exterior walls. Knockdown frames may be used in other areas if they are secured to blocking in the walls.

3-4 Interior Signage

3-4.1 Interior Signage at All Pedestrian (Employee and Customer) Entrances

Space must be provided at all pedestrian entrances to display Poster 7, *Rules and Regulations Governing Conduct on Postal Property*; Poster 158, *Possession of Firearms and Other Dangerous Weapons on Postal Property Is Prohibited by Law* (notifying individuals that it is a crime to bring a dangerous weapon onto postal property); Poster 296, *Notice of Reward*; and Poster 76, *Some Things Were Never to Be Mailed* (hazardous materials).

3-4.2 Interior Signage for Restricted Areas

Restricted areas include such areas as the workroom and the administrative area. Space must also be reserved for signs LAB 112 and LAB 112-A, *Alarms Protect Postal Property*, and a sign in addition to Poster 7 notifying employees and the public that they are subject to search when entering or leaving a postal facility. Chapter 2 of 39 CFR provides the guidelines that detail the searching of such items as large handbags and purses (whether the individual is male or female), briefcases, lunch pails and bags, personal packages (not mail), gym-type bags, etc.

4 Security Requirements for Types of Operations and Functional Areas

This chapter addresses the various security requirements associated with the different types of postal facilities as well as the different functional areas within those buildings. Many sections refer to specific building components as defined in Chapter 3.

4-1 Customer Service Facilities

4-1.1 General Security Requirements

The retail service areas are generally open to customers 8 or more hours a day, while the self-service and box lobbies may be open 24 hours a day. The Postal Service must ensure that appropriate hardware is installed to meet security requirements while still meeting customer needs for access and egress.

Different levels of security have been developed for various types of retail operations. In those locations that have been designated as medium crime areas or in facilities with open merchandise, a CCTV system is installed. In those locations designated as high crime areas, open merchandise displays are not permitted, and bullet-resistant material must be installed.

4-1.1.1 After-Hours Security

Lobbies must be designed to provide a means of securing the retail service and counter areas during the hours they are closed. The retail service lobby can be secured by providing either doors or a folding or coiling grille separating it from the self-service and box lobbies. The postal retail store (area of open merchandise) is secured with a folding grille that is locked after business hours or when the store is not staffed.

4-1.1.2 Visibility From Exterior

The design of the retail service and box lobbies must ensure that they are visible from outside the building in order to discourage vandalism and other criminal activity within the building. Post office box, self-service, and retail service lobbies must contain adequate window or storefront area to permit the interior to be easily observed from the street or customer driveway.

Window sill heights must be 2 feet or less above the finished floor to allow for sufficient expanses of glazed area. Exterior obstructions such as vegetation must be kept to a minimum at window locations. Glass bricks or glass blocks are not acceptable for lobby windows unless they can provide unrestricted, clear visibility.

4-1.1.3 **Lobby Lighting**

Illumination levels must comply with Handbook AS-503. The postal retail store area behind the security grille must have sufficient lighting at all times to ensure that the CCTV cameras can operate effectively.

4-1.1.4 **Bullet-Resistant Requirements**

The Inspection Service determines the need for bullet-resistant counterlines based on a risk assessment. Bullet-resistant materials may be required in high crime locations and must be used in the retail lobby areas and administrative lobby areas. Bullet-resistant material may also be required at the wicket door adjacent to the counter. See 3-1.4 for technical requirements.

4-1.2 **Electronic Security Systems**

4-1.2.1 **CCTV Requirements**

A security CCTV system is a standard requirement in postal retail stores with open merchandising, where it is used to deter robberies, shoplifting, and burglaries. In medium and high crime areas, a security CCTV system is installed as deterrence to robberies, regardless of the type of retail merchandising.

If the facility has a CIS, all the feeds from the security CCTV cameras must be looped individually through the multiplexer to the CIS. Daily monitoring of the security system is the responsibility of the postmaster or station manager. The equipment consists of a lockable console, monitor, switcher, multiplexer, and recorder. This equipment must be hardwired. The CCTV system must have a control wire attached directly to the EAS system; it must not be looped through the intrusion detection system. The information from the EAS is only to cause a date and time stamping of the video tape at the time of the incident. See postal retail store details and the master specifications found in Handbook AS-503 for guidelines. In addition, the local field inspector is a resource for proper alignment and location of these items.

CCTV camera locations are indicated on the standard plans. The following may be used as a guide for AQs or existing facilities:

- a. One camera is required for every two full-service IRT positions.
- b. Three cameras are required in the postal retail store open merchandise area, except in SSBD plans, where two cameras are required.
- c. One camera is required at the lobby entry area facing the EAS panels.
- d. If the lobby is open 24 hours a day, a camera may be necessary to cover the vending area.
- e. In some areas, a camera may be required on the back dock.

- f. Additional cameras may be needed if the lobby requires coverage due to a nonstandard layout.

Note that cameras are not required to monitor the post office box alcove areas.

The equipment is normally installed in the manager's or postmaster's office. The recorder and multiplexer must be mounted in a lockable container that is designed for such purposes and is secured to the wall. The system is normally set in 24-hour record mode from Monday through Saturday, and in 48-hour mode from Saturday night until 8:00 a.m. on Monday, at which time it switches back to 24-hour mode. See 3-2.1 for further information.

4-1.2.2 **Intrusion Detection System**

Any postal facility handling or processing high volumes of valuable or classified registered mail, storing stamp stock overnight that maintains an accountability greater than \$100,000, having a history of burglaries or crime in the geographic area, or having an open merchandise retail operation is required to have an IDS. See Handbook AS-503 for sensor locations. Facilities 4,000 square feet or larger that do not meet these criteria must have a rough-in, including conduit with pull strings, for potential future system installation. Facilities less than 4,000 square feet are not required to have any provisions for an IDS.

4-1.2.3 **Electronic Article Surveillance**

An EAS system is required in facilities with an open merchandise retail operation or when \$30,000 worth of merchandise is displayed in a limited open merchandise situation. The panels should be placed so as to separate the full-service lobby and postal retail store from the self-service vending area, letter drops, and post office box sections. If this is not possible, the panels must be placed in front of the lobby doors and other routes of exiting. If gaps of more than 12 inches exist between the panels and doors or walls, a 4-foot tall, solid barrier must be designed to discourage theft.

4-1.2.4 **Access Control System**

Mechanical or electromechanical access devices as defined in 3-1.5.10 are required in facilities that have 20 or more employees. An access control system as defined in 3-2.4 should be considered in facilities that have 100 or more employees, and is required in facilities that have 200 or more employees. Access control devices must be located at employee entrances and exits, points of access to the administrative space, high value areas, areas requiring higher than normal security, and areas requiring a record of employees' presence. A photo-identification system is required as part of the access control system. For vehicular access control issues and requirements, see 2-5.3.

4-1.3 **Security Envelope**

The security envelope must meet the requirements of 3-3.

4-1.4 **Functional Areas**

4-1.4.1 **Full-Service Area**

The full-service area must have a coiling or folding grille that allows postal employees the visual privacy necessary to conduct after-hours financial transactions.

4-1.4.2 **Self-Service Vending Area**

All SSVA equipment must be completely secured to the wall studding. Front-loaded multicommodity floor-mounted self-service postal center (SSPC) machines must be installed so that the front door or face of the machine extends no more than 3/4-inch beyond the security wall. A smoke detector must be installed in the workroom above the letter drops. Freestanding (including the multicommodity machines), pedestal, or island-configured SSPC equipment must be completely secured, including the backs of all units, to prevent unauthorized removal.

4-1.4.3 **Postal Retail Store**

The postal retail store area must be able to be fully closed off with a folding grille to accommodate daytime versus nighttime operational needs. Refer to Handbook AS-503.

4-1.4.4 **Parcel Lockers and Post Office Boxes**

Parcel lockers must be installed and maintained in a secure manner similar to post office boxes. A three-point positive position, spring-loaded, self-locking, rear door is to be provided on parcel lockers. Parcel locker front and rear doors must be manufactured from 16-gauge steel. When required by the Inspection Service, security devices (i.e., bars) must be provided to secure the rear doors on the workroom side of all parcel lockers.

Freestanding parcel lockers and/or post office box units must be secured to the walls in accordance with 3-3.1.

4-1.4.5 **Drive-Up and Walk-Up Windows**

Drive-up and walk-up windows, whether built-in or freestanding, must be constructed in accordance with current Postal Service criteria for bullet-resistant counterlines and bank industry criteria for drive-up or walk-up windows. Due to the unique construction requirements of a drive-up or walk-up window and/or a bullet-resistant counterline, close coordination with the Inspection Service is necessary to achieve optimum security. The protection must extend to the walls surrounding the window for a distance great enough to ensure the safety of employees during a robbery or assault. At a minimum, this necessitates protection from the floor to the ceiling or roof above and 8 feet on each side of the window. For security countermeasures, these areas must have CCTV coverage both inside and outside the building.

Drive-up and walk-up windows should be placed in close proximity to the full-service counter area.

4-1.4.6 Workroom**4-1.4.6.1 Stamped Envelope Room**

In customer service facilities, the stamped envelope room is not used for stand-alone storage of stamp stock, money orders, or money. This room is used for storage of nonstamp merchandise and envelopes as well as the housing of security containers in which stamps and high value items are stored.

4-1.4.6.2 Accountable Mail Cage (Registered, Cash on Delivery, and Certified Mail)

Accountable mail cages are located in the workroom. All cages must be fully enclosed with a wire fabric in accordance with 3-1.6. The wire fabric must be secured to the floor without gaps. The cage ceiling must be the same fabric as the walls, or the walls must extend to the roof deck or floor structure above. The entrance security must equal the cage wall security. A self-closing, self-locking system must be provided for the entry gates. The hardware must be fully secure when closed.

If a separate room is used to house the registry, the room must face onto and be adjacent to the workroom. All walls, ceiling, and floors must meet the construction requirements for security walls and ceilings. The door must be made of wire fabric as defined above, or have burglar-resistant glazing to allow visibility inside. A service window must be installed in the fixed panel adjacent to the door. All doors or openings must have Inspection Service-approved hardware and locks. The room must be visible from the CIS (i.e., from the CIO, LOG, or CCTV camera).

4-1.4.7 Mailing Vestibule

A mailing vestibule meeting the requirements of 3-3 is required if mail is to be delivered or picked up outside of normal operating hours. In small facilities, an enclosed platform should be considered if the facility needs or is expected to need overnight storage of large quantities of mail.

4-2 Delivery Facilities or Areas

4-2.1 General Security Requirements

Delivery facilities or customer service facilities with a delivery component must have only one employee entrance. If the facility houses 20 or more employees, the designated entrance door must be controlled with an access control device. The area inside the entrance should be designed for employees to go to the locker room, workroom, or administrative areas first. The locker rooms must be located at the entrance with a single hallway leading to the workroom. It is preferred that this entry area also contain the lunch room, cafeteria, or break room; otherwise, the room should be just inside the workroom close to the entryway.

Delivery facilities should have only one employee parking lot. If this cannot be accomplished, the two lots should be designed so that they funnel employees to the one employee entryway. No employees, whether managers, drivers, or maintenance employees, are allowed to park personal cars in the Postal Service maneuvering area.

4-2.2 Electronic Security Systems

4-2.2.1 Security CCTV System

A security CCTV system must be provided if the facility requires high security measures or if the employee count is such that an access control system is required.

4-2.2.2 Intrusion Detection System

Any postal facility handling or processing high volumes of valuable or classified registered mail, having a history of burglaries or crime in the geographic area, or having an open merchandise retail operation is required to have an IDS. See Handbook AS-503 for sensor locations.

4-2.2.3 Access Control System

Mechanical or electromechanical access devices as defined in 3-1.5.10 are required in facilities that have 20 or more employees. An access control system as defined in 3-2.4 should be considered in facilities that have 100 or more employees, and is required in facilities that have 200 or more employees. Access control devices must be located at employee entrances and exits, points of access to the administrative space, high value areas, areas requiring higher than normal security, and areas requiring a record of employees' presence. A photo-identification system is required as part of the access control system. For vehicular access control issues and requirements, see 2-5.3.

4-2.3 Security Envelope

The security envelope must meet the requirements of 3-3.

4-2.4 Functional Areas

4-2.4.1 Accountable Mail Cage

See 4-1.4.6.2 for requirements regarding accountable mail cages.

4-2.4.2 Mailing Vestibule

A mailing vestibule meeting the requirements of 3-3 is required if mail is to be delivered or picked up outside of normal operating hours. In small facilities, an enclosed platform should be considered if the facility needs or is expected to need overnight storage of large quantities of mail.

4-3 Mail Processing Facilities or Areas

4-3.1 General Security Requirements

Building identification signage on mail processing facilities must be kept to a minimum, since these facilities have minimal interaction with the postal customer; yet it must provide enough identification for someone conducting business with the Postal Service to find the building and navigate the site. The building entry must be clearly visible and, if possible, a single point of entry is to accommodate both visitors and employees. The entryway must be designed to deny customers and other outsiders access into the remainder of the facility and to keep off-duty employees and visitors from having access to the workroom after they enter the building.

4-3.1.1 Employee Entrance

Mail processing facilities must be designed with a single employee entrance. Site layout must provide safe access to the entrance (i.e., employees should not have to cross a major road or the access drive to the maneuvering area to reach the entrance). The entry location must be situated so as to accommodate employees driving to work, being driven to work, or using public transportation. Site layout and parking lots must be adjusted to meet the above requirements.

4-3.1.2 Visitor and Administrative Entrance

A single entrance point should be designed to provide visitor and administrative personnel with access to the facility; however, once they are inside, a separate doorway must prevent unauthorized access to the administrative operations. The parking area for visitors must be separate from the employee parking area, but still in close proximity to the front entrance.

4-3.1.3 Bullet-Resistant Requirements

The Inspection Service determines the need for bullet-resistant counterlines based on a risk assessment. Bullet-resistant materials may be required in high crime locations and must be used in the administrative lobby areas. See 3-1.4 for technical requirements.

4-3.2 Electronic Security Systems

4-3.2.1 Security CCTV System

The security CCTV system is custom designed to meet the threats and vulnerabilities identified by the local postal inspector. It is used in conjunction with the access control system at all entry points (pedestrian and vehicular). It is also used to monitor high value areas in conjunction with any IDS equipment installed. The system must have one or more monitoring stations that contain the following components: one or more multiplexers, recorders, switchers, monitors, and other electronic devices. The signals may be

transmitted to a remote site; this would require at least two monitoring stations, one of which is local.

The same hardware and size criteria are to be followed in designing the security system as is used in designing the CIS; i.e., 1–5, 5–10, and 10–20 cameras constitute a small system; 21–40 cameras constitute a medium system; and 41 or more cameras constitute a large system. If the security system is larger than 20 cameras, a computer interface is required with a graphical user interface. For less than 20 cameras, an as-built drawing laminated to a board and mounted in close proximity to the console is sufficient. Any icons and text must be readable from at least 4 feet.

If the facility has a CIS, the security CCTV system will use a partition of the matrix switcher of the CIS. This will allow the CIS to access the security CCTV system while denying the security CCTV system access into the CIS.

The equipment is normally installed in the manager's or postmaster's office, or a designated security monitoring location may be a secondary monitoring location.

4-3.2.2 **Intrusion Detection System**

Any postal facility handling or processing high volumes of valuable or classified registered mail, serving as a consolidated banking facility, serving as an SDO, having a history of burglaries or crime in the geographic area, or having an open merchandise retail operation is required to have an IDS. See Handbook AS-503 for sensor locations.

4-3.2.3 **Electronic Article Surveillance**

An EAS system may be required in P&Ds at the employee entrance (see Handbook AS-503).

4-3.2.4 **Access Control System**

Mechanical or electromechanical access devices as defined in 3-1.5.10 are required in facilities that have 20 or more employees. An access control system as defined in 3-2.4 should be considered in facilities that have 100 or more employees, and is required in facilities that have 200 or more employees. Access control devices must be located at employee entrances and exits, points of access to the administrative space, high value areas, areas requiring higher than normal security, and areas requiring a record of employees' presence. A photo-identification system is required as part of the access control system. For vehicular access control issues and requirements, see 2-5.3.

4-3.3 **Security Envelope**

The security envelope must meet the requirements of 3-3.

4-3.4 **Functional Areas**

4-3.4.1 **Lounges and Cafeterias**

Lounges and cafeterias must be located close to the workroom without opening directly onto the workroom. Instead, their doors must open onto the same corridor as the locker rooms, which in turn leads to the workroom. Lounges and cafeterias should be adjacent to the employee locker rooms when possible.

4-3.4.2 **Employee Locker Rooms**

Preferably, employee locker rooms should be located adjacent to, and just inside of, the access control point. In some locations, however, the cafeteria may be placed next to the entryway with the locker rooms further inside the building; this may be desirable if the facility entertains many visitors for training or meetings. There are also circumstances when the locker rooms may be located just outside the access control point, depending on whether the facility also has a security force monitoring the entryway. In any of these situations, the locker rooms must open onto a corridor which in turn leads to the workroom.

4-3.4.3 **Smoking Areas**

In new facilities, smoking areas must be surrounded by a fence. In existing facilities, smoking areas should be fenced when feasible. If required by code, an emergency egress gate with an alarm must be installed, and the alarm must be tied into the building's fire system. If the facility has a CCTV system, the smoking area is to be under surveillance only if it has an egress gate.

4-3.4.4 **Accountable Mail Cage**

The accountable mail cage must meet the criteria found in 4-1.4.6.2.

The interior of this room must be visible from the CIS (i.e., from the CIO, LOG, or CCTV camera). If a CCTV system is used, a camera, dome housing with PTZ, and alarm system must be installed in the room. Verify these requirements with the local inspector.

If a facility has a security card access control system, entry into specific mail cages is to be controlled by this system. The area must also have a security CCTV camera monitoring the entrance, independent of the CIS, to provide more positive identification of employees entering or leaving the space.

4-3.4.5 **Self-Service Vending**

A facility of this size typically has a self-service vending area and money storage area. It must be large enough to accommodate the appropriate number of security containers to store the money collected daily. See 4-1.4.2 for the security requirements for this room.

4-3.4.6 Computerized Mail Flow Room

The computerized mail flow room must be constructed in accordance with the requirements found in 3-3.

4-3.4.7 Postal Source Data System

The postal source data system (PSDS) room must be adequately secured because it stores the head-end or control equipment for personnel time and attendance records. This room must be constructed in accordance with the requirements found in 3-3.

4-3.4.8 Buildings and Grounds Room

If the buildings and grounds room is accessible from the exterior, it must be individually keyed. The room's door must be secured with a deadbolt lock. If double doors are installed, manual flush drop bolts must be used on the inactive leaf and must engage the doorjamb and the concrete slab or secure threshold to a depth of at least 1 inch. Interior walls must meet the criteria described in 3-3.1. Doors and ceilings with louvers must comply with the requirements in 3-3.2 and 3-3.5.

4-3.4.9 Carrier and/or Mail Vestibules

Vestibules, whether for carriers or mail, must be constructed in accordance with the requirements found in 3-3.

4-3.4.10 United States Customs Service Area

The responsibilities of the U.S. Customs Service require that their mail handling operation be separate from Postal Service space and that security measures be provided. A secure wall or wire fabric partition must be installed between the Postal Service workroom and the designated Customs area. Also, a lockable passageway must be provided to permit the exchange of items between the two areas. Customs employees must have direct access to their support area, which must be located adjacent to the Customs workroom. Customs also requires direct contact with the general public.

Maximum CIS observation is required in all Customs areas (see 5-1.4).

4-3.4.11 Contract Employee Lounge Areas

Contract employee (driver and airline) lounge areas are to be used by airline employees and/or contract drivers to prevent their access to the workroom. The contract employee lounge areas must be accessible from the dock and platform only. A dedicated toilet room must be provided to serve this lounge area.

4-3.4.12 Accountable Paper Rooms

The 24-hour operations of most P&Ds must use the design requirements for security walls as discussed in 3-3.1. If double doors are provided, manual drop bolts must be installed on the inactive leaf and must engage the doorjamb and the concrete slab or secured threshold to a depth of at least

1 inch. Two 3/4-inch conduits and a home run with pull cord to the electrical room must be installed for installation of an intrusion detection system. Security containers must be stored in this room, and a security screen usually divides the room. Security must be provided above the ceiling in accordance with the requirements in 3-3 at the location of the security screen. The security screen must meet the criteria specified in 3-1.7. This space must not be used for storage of loose or open stamp stock. Bulk stamp stock may be stored within the caged, secured area of the stamp storage areas if there is no better security available elsewhere in the facility.

Automated vertical storage and retrieval systems for the storage of bulk stamp stock are not allowed in MSBD facilities. Storage and retrieval units are authorized only in facilities that operate 24 hours a day. Bulk stamp stock may be stored in retrieval systems, such as a Lectriever from Cardex or similar system; these systems may also be used for the storage of personnel folders and contract folders. They are typically used in SDOs that are part of the SDN. Wall construction must meet the criteria for security walls as defined in 3-3.1, and all door hardware must meet hardware specifications as outlined in 3-1.5.5.1. The units have features installed to help protect them from both internal and external attacks. The area must be secured within a wire fabric enclosure. Lectriever retrieval systems must be set no closer than 3 feet from any open wire fabric cage wall that is accessible from outside of the cage wall. This room must have an alarm and, if a security CCTV system is present in the facility, a PTZ camera in a dome housing installed in it.

4-3.4.13 **Credit Union**

Reserved for future information.

4-3.4.14 **Medical Units**

Reserved for future information.

4-3.4.15 **Human Resources — Employment Office**

Reserved for future information.

4-3.4.16 **Postal Employee Development Center**

Reserved for future information.

4-3.4.17 **Administrative Areas**

See 4-3.1.2 and 4-4 for these security requirements.

4-4 Administrative Facilities or Areas

4-4.1 General Security Requirements

4-4.1.1 Public Access

Administrative facilities and areas must be designed to consider the need for access by the public — the spaces in which the most dealings with the public take place must be located close to the front entrance to the building. These facilities may be located in commercial space as well as in existing processing and distribution plants. They usually house the area offices, district offices, Inspection Service offices, or Facilities offices.

4-4.1.2 Bullet-Resistant Requirements

The Inspection Service determines the need for bullet-resistant counterlines based on a risk assessment. Bullet-resistant materials may be required in high crime locations and will be used in the administrative lobby areas. See 3-1.4 for technical requirements.

4-4.2 Electronic Security Systems

4-4.2.1 Security CCTV System

A security CCTV system must be installed when the employee complement is such that an access control system is required.

4-4.2.2 Intrusion Detection System

Any postal facility handling or processing high volumes of valuable or classified registered mail, having a history of burglaries or crime in the geographic area, or having an open merchandise retail operation is required to have an IDS. See Handbook AS-503 for sensor locations.

4-4.2.3 Access Control System

Mechanical or electromechanical access devices as defined in 3-1.5.10 are required in facilities that have 20 or more employees. An access control system as defined in 3-2.4 should be considered in facilities that have 100 or more employees, and is required in facilities that have 200 or more employees. Access control devices must be located at employee entrances and exits, points of access to the administrative space, high value areas, areas requiring higher than normal security, and areas requiring a record of employees' presence. A photo-identification system is required as part of the access control system. For vehicular access control issues and requirements, see 2-5.3.

4-4.3 Security Envelope

The security envelope must meet the requirements of 3-3.

4-4.4 **Functional Areas**

4-4.4.1 **Personnel Records Storage**

Walls and ceilings in the personnel records storage area must be constructed in accordance with 3-3.

4-4.4.2 **Contract Record Storage**

Rooms for the storage of highway contracts, airline contracts, or other corporate contracts such as the Transportation Management System (TMS) must have walls and ceilings constructed in accordance with 3-3.

Active contracts the Postal Service has with current lessors and all contract negotiations must be secured in a lockable cabinet or in a storage room meeting the requirements of 3-3.

4-4.4.3 **Special Use Areas**

For special use areas, such as the stamp depository network, evidence room, armory, etc., provide security in accordance with the criteria found elsewhere in this handbook.

4-5 **Inspection Service Areas**

Office and operational areas for the Inspection Service to use are to be provided in accordance with the current guidelines of Handbook AS-504, *Space Requirements*.

4-5.1 **General Security Requirements**

4-5.1.1 **Office Locations**

The office or office suite provided for postal inspectors must be located so that access to the office and movement within it cannot be seen by Postal Service employees. However, these offices must be accessible to the public. Individual offices must be sized in accordance with current space standards.

4-5.1.2 **Bullet-Resistant Requirements**

Bullet-resistant materials may be required in high crime locations and must be used in the Inspection Service lobby area. See 3-1.4 for technical requirements.

4-5.2 **Intrusion Detection System**

All Inspection Service office space must have alarms installed. The IDS must cover the entry to the space, all evidence storage areas, and other high risk storage areas. It must have multiple keypad control locations and must be zoned separately from the building's main IDS so that the status of Inspection Service keypads is not displayed on the main system. The local inspector must be closely involved to ensure that the system is designed to meet the

most current requirements of this handbook and Handbook AS-503. See Handbook AS-503 for sensor locations.

4-5.3 Office Entries

4-5.3.1 Single Inspector's Office (Domicile or Nondomicile)

Facilities with one inspector's office must have an exterior entry door into the building in addition to the interior office entry to provide direct and undetected access to the CIO and/or LOG. This door should be located as inconspicuously as possible and, if necessary, a screen wall or fence must be provided to shield the entry. See 4-5.3.4 and 4-5.3.5 for exterior entry requirements. Where practical, the entry to the office should be from or adjacent to the post office box lobby in retail and delivery operations or from the employee parking lot in processing plant operations.

4-5.3.2 Multiple Inspector's Office Space

In facilities with two or more inspectors' offices, access to the offices is to be provided directly from the building's exterior into an office and/or corridor used exclusively by Inspection Service personnel. This entry should be located so that personnel can access the inspector's offices without passing through space used by postal staff. Entry must be provided directly into the CIO or LOG either from an inspector's office or from a corridor used only by Inspection Service personnel.

4-5.3.3 Office Not on First Floor

In facilities where inspectors' offices are located on any floor other than the ground floor, the elevator and/or public corridor can be used to gain access to the office. Entry into the CIO must be provided directly from both the inspector's office and a separate exterior entrance from ground level.

4-5.3.4 LOG and CIO Covert Entries

LOG and CIO entries must be located out of view of employees and outside of fenced areas. The local inspector must approve the entry location. Where required, the entry must be recessed between 18 inches and 24 inches from the outside face of the building. No exterior light fixture is to be provided over the entry. All exterior entries to the inspector's space must have a sidewalk to the door.

In lieu of a recessed entry, a screen wall may be installed to ensure entry privacy (see 4-5.3.5); this type of screen wall may be used on all entries at the discretion of the local inspector. As another alternative, this entry may be located off of the box lobby and away from the service counters and philatelic area.

On exterior entry doors into Inspection Service spaces, a 190-degree viewer must be installed centered on the door at 5 feet AFF. If required by the local inspector, an optional 1-inch x 6-inch one-way glass panel may also be used in combination with the 190-degree viewer. The glazed panel must be

centered in the door with the top placed at 5 feet AFF and the 190-degree viewer at 4 feet-9 inches AFF.

The CIO is constructed on a mezzanine level or as high above the finished floor as practical, except in facilities such as SSBDs where low ceiling height requires the CIO to be at floor level. An enclosed stairway must be provided for access to the CIO mezzanine level to allow for replacement of the electronic equipment housed in this space. If the facility has both a LOG and a CIO, locate both at the same height. If the facility does not have a domicile or nondomicile office, an exterior entry door into the building must provide direct and undetected access to the CIO.

4-5.3.5 **Screen Wall**

The screen wall, if required, should be a minimum of 8 feet high and may be constructed of the same material as the building exterior or may be fence material that provides full privacy. A ± 1 -inch x 6-inch slit, in a grout or mortar line at approximately 5 feet AFF, must be located in each wall face to provide the inspector with visibility of the surrounding areas. The screen wall must ensure undetected access to the LOG or CIO.

4-5.4 **Toilet Rooms**

Inspectors' office space in P&D facilities — whether domicile, nondomicile, or a suite of inspectors' offices — is to be provided with a toilet room. The toilet room must be located where apprehended individuals may use it without leaving the inspectors' office or suite.

The toilet room is to be provided with a lavatory, flush-tank toilet, toilet paper holder, paper towel holder, soap dispenser, mirror, light, and duplex outlet; it is not to be provided with any windows.

4-5.5 **Construction Requirements**

4-5.5.1 **Sound Attenuation**

In the walls and ceilings of the inspectors' space, sound attenuation must be provided that has the following minimum sound transmission class (STC) ratings:

- a. STC 45 for corridors.
- b. STC 52 for the interview room.
- c. STC 45 for the conference room.
- d. STC 35 for all other walls and ceilings in the office or suite.
- e. STC 45 for walls and ceiling (and floor, if applicable) between the office suite and other postal areas.
- f. STC 45 for CIO walls and ceiling (and floor, if applicable).

4-5.5.2 **Hardware**

The project manager or postmaster provides locks and lock templates for inspector's offices and for the CIO and LOG. The contractor installs the locks.

This hardware is available through the Topeka Material Distribution Center and can be ordered in accordance with ASM 273.4 and Publication 247. Hardware sets for the exterior doors must meet the standards of ANSI 156.13 Function-15, 931AH.

4-5.6 **Security Force Office Space**

Security force office space is required when postal police officers or contract security guards are assigned to a facility. The size of the space is determined by the size of the security force complement. The office and supporting areas must be located immediately adjacent to the employee entrance and segregated from the general building. The security force office space must have heating, ventilation, and air-conditioning (HVAC) provided for continuous 24-hour operations. See Handbook AS-504 for office space requirements.

4-5.6.1 **Office Space**

Secure offices must be provided for the postal police officer in charge and/or postal police supervisor in charge. Private offices are to be provided for postal police supervisors in accordance with the criteria in Handbook AS-504.

4-5.6.2 **Electrical Requirements**

In the general office area, electrical outlets are to be provided as determined by equipment needs, or a minimum of one duplex outlet for every 10 linear feet of wall space and at least one outlet on each wall.

4-5.6.3 **Communications Center**

The Inspection Service communications center is located in the security force office space. A raised floor is to be provided for wiring, heat exhaust, and air circulation for the electronic equipment. The local inspector will provide specific instructions to the project manager during the design phase.

4-5.6.4 **Security Supply Room**

Storage for security supplies must be constructed in accordance with 3-3.

4-5.6.5 **Main Employee Entry — Postal Police Room**

The postal police room at the main employee entry must be constructed in accordance with 3-3. It must have a sliding window and a counter for the inspection of employee credentials, passes, parcels, and personal property carried on or off the premises. If practical, this room should also have a view of the employee parking lot.

4-5.6.6 **Package Check-In Room**

The package check-in room is designed to securely store packages for employees. It must be constructed in accordance with the requirements of 3-3.

4-5.6.7 Evidence Room

The evidence room must be constructed with security walls and security doors in accordance with the requirements of 3-3. The door may require a high security lock for nighttime security. The room must include an IDS with door contacts and a motion sensor, and must have access controls in accordance with 3-1.5.10 or 3-2.4. Additional Department of Justice (DOJ) requirements may apply.

4-5.6.8 Interview Room

The interview room must have an STC rating of 45 or higher. It must not have any windows, but may be required to have a one-way mirrored glazing to allow observation from another room. The interview room must have a metal railing or an eyebolt to which handcuffs can be attached.

4-5.6.9 Special-Purpose Rooms

Men's and women's toilet rooms and locker rooms must be provided. Shower facilities may be required if requested in writing by the INC; these facilities would be in addition to the individual toilet rooms and locker rooms. A lunch room and/or lounge area should be provided. A weapon loading and unloading and storage room must be provided. Other specialty rooms dealing with a crime laboratory or training facilities may be required as determined in the process of filling out Form 929, *Major Facility Planning Data*. The Inspection Service will provide guidance on these spaces during the early design stages.

5 Criminal Investigative System

This chapter addresses the components of and requirements for the Criminal Investigative System. *The CIS is used exclusively by the Inspection Service and only for criminal investigations.*

5-1 Criminal Investigative System Overview

A CIS must be provided for in the planning, design, and construction of all post offices, stations, branches, or other mail handling facilities where the total projected 10-year full-time employee complement will equal or exceed 20 employees. This requirement does not apply to temporary facilities expected to be occupied less than 2 years.

For existing facilities, the CIS is defined as a stand-alone LOG that may be supplemented by a limited number of CCTV cameras in some remodeled buildings. In new facilities, the system consists of at least a CCTV system and CIO. Depending on the size and function of the building, the CIS may also consist of a nondomicile office, a spine of lookout galleries, and/or an automated electronic test system.

Deviations from CIS requirements must be requested in writing before the concept design stage, i.e., at the 10 percent design stage.

5-1.1 Special Circumstances

In special circumstances, a CIS may be required in facilities that do not meet the above criterion. Examples of such facilities include a small airport mail center (AMC) or a high-value shipment office. The chief inspector or designee will provide written justification for these special circumstances during the planning phase. When remodeling or renovating primary mail handling areas (see 5-1.4), the completed project must provide observation equal to or better than what was available prior to construction. The CIS includes a CIO, CCTV system, and automated electronic test system, and may include LOGs.

5-1.2 Criteria for Type of CIS

The following criteria must be used for each facility type; where any requirement is specified by a particular program name (i.e., SSBD, MSBD, or P&D), such a requirement is to be construed as applicable to any facility of

that size range, including alternate quarters and existing facilities. Refer to Handbook AS-503 for additional design criteria.

5-1.2.1 **Facilities Less Than 9,000 Square Feet (SSBD)**

Facilities smaller than 9,000 square feet have a limited CIS if necessitated by the number of employees, although most facilities this size will not meet the employee complement threshold. The two largest standard SSBD plan sizes have been designed to accommodate a CIO if necessary, but do not include any CCTV equipment — only junction boxes and conduit are provided as a default. During the planning phase, the local inspector in charge determines if a request for deviation to install the CCTV system is warranted. LOGs are not used in facilities of this size. The SSBD standards include CIO plans and details, as well as CCTV junction box layout information, for those cases where the system rough-in is required.

5-1.2.2 **Facilities With Workrooms Less Than 50,000 Square Feet (MSBD)**

For facilities larger than 9,000 square feet with a workroom of less than 50,000 square feet, a CIS must be installed. The CIS consists of a CCTV system, a CIO, and an optional automated electronic test system. LOGs are not used in facilities of this size range. The MSBD standards include CIO plans and details as well as CCTV layout information. In processing plants with a workroom in this size range, the CIS also contains a nondomicile office; in an MSBD facility, the CIO is a self-contained unit.

5-1.2.3 **Facilities With Workrooms 50,000 Square Feet and Larger (P&D)**

For facilities with a workroom larger than 50,000 square feet, a spine of LOGs may be required, based on an evaluation made by the Inspection Service. This spine will dissect the building and is in addition to the requirements discussed in 5-1.2.2.

In facilities with over 150,000 square feet on a single floor, more than a single spine of galleries may be needed to supplement the CCTV system and CIO. This hybrid system must be designed in conjunction with the equipment requirements for the facility and the required access to the workroom.

In addition to the CIO, an Inspection Service nondomicile office is required in these larger facilities. A major P&D facility may need more than one CIO due to the size of the facility, multiple stories, or adjoining buildings. The standard prototype drawings for P&Ds with workrooms larger than 50,000 square feet have been designed to include the LOG spine, the CIO, and the CCTV layout.

5-1.3 **Viewing Distance**

Viewing distances are based on the size of the object being observed (i.e., the address on a letter-sized mailpiece). The viewing distance of LOGs is a maximum of 72 feet from the gallery. The viewing distance of the CCTV cameras is a maximum of 60 feet in diameter. When LOGs and CCTV

cameras are used in combination, the viewing distance of the cameras takes precedence, so that the cameras must be located no more than 60 feet from the LOG.

The camera's mounting height at ceiling level can affect its viewing distance and therefore the required spacing of CCTV cameras. The cameras in mail processing areas are located in a grid layout at 60 feet OC maximum based on a vertical height of 14 feet AFF. Additional cameras may be needed when a tray management system or other mechanized system, which may interfere with the camera views, is installed overhead. In MSBDs, the camera spacing is 40 feet OC maximum, based on a vertical height of 11 feet to 14 feet AFF. If the ceiling is less than 11 feet anywhere within the workroom area, additional cameras and or equipment may be required. In SSBDs, camera junction box spacing is approximately 30 feet OC based on a vertical height of 9 feet to 10 feet-6 inches.

Carrier operation areas must have one camera for every four carrier cases; this spacing *supercedes* cameras spaced on a regular grid throughout the workroom.

5-1.4 **Areas Observed**

5-1.4.1 **Primary Areas**

Provide maximum observation for the following areas and functions of the building which inspectors must view using the CIS from the CIO:

- a. All mail handling areas, including the workroom side of the post office box section and retail service lobbies.
- b. The workroom side of the self-service vending area.
- c. Finance areas (except bookkeeping and/or accounting areas where no cash, stamp stock, or money orders are handled).
- d. Central markup and computer-forwarding areas.
- e. Registry sections.
- f. U.S. Customs areas.
- g. Mailing platforms and carrier loading platforms.
- h. BMEUs and weighing stations or rooms.
- i. Holding areas for valuable mail such as credit cards, jewelry, precious metals, and T-checks.
- j. Rewrap sections, loose-in-mails areas, nixie areas, and dead letter and parcel areas.
- k. Mail being handled on all employee station levels in multitiered mail processing equipment, shakeout areas, and mail vestibules.
- l. Stamp storage rooms.
- m. Express Mail and Priority Mail acceptance and delivery areas.
- n. Vault doors.
- o. Employee entries and exits, including entries into locker rooms and toilet rooms.

- p. Each IRT, cash register, and/or point of sale (POS) terminal in the retail area.
- q. Trash and dumpster areas.
- r. Lunch rooms, swing areas, and lounges.
- s. Stamp distribution network in P&D facilities.

5-1.4.2 **Secondary Areas**

If the LOG passes through or is adjacent to the following areas, or if the local inspector in charge obtains deviation request approval for CIS coverage due to historical concerns, provide observation of:

- a. Custodial and postal supply and storage rooms, including equipment storage.
- b. Maintenance areas and stockrooms.
- c. Mechanical equipment rooms.
- d. Equipment storage areas.
- e. Time clock and Postal Source Data System station.
- f. Vehicle operation and maintenance area and storeroom.

5-1.4.3 **Areas Not Observed**

Men's and women's toilet rooms and locker rooms are not observed.

Observation of the locker areas is permissible only if these locker areas are shared by male and female employees.

5-2 **Criminal Investigative Office**

5-2.1 **CIO Configurations**

The CIO for all building sizes includes view windows and a covert entrance to the building; in MSBD and P&D facilities, it also includes the video control consoles and an equipment rack housing the CCTV system support equipment, and is located on a mezzanine above the workroom floor level.

The following criteria must be used for each facility type; where any requirement is specified by a particular program name (i.e., SSBD, MSBD, or P&D), such a requirement is to be construed as applicable to any facility of that size range, including alternate quarters. Refer to Handbook AS-503 for additional design criteria.

5-2.1.1 **Facilities Less Than 9,000 Square Feet (SSBD)**

In SSBDs, the CIO contains approximately 80 usable net square feet; the size of the room has been scaled down to be in keeping with the smaller size of the building. Instead of a freestanding console, a 24-inch deep counter is to be installed at 30 inches AFF, running the entire length of the wall above which the CCTV conduit is terminated. Unlike in larger facilities, the CIO is at

the same floor level as the workroom, and no toilet room is provided. For additional information, refer to Handbook AS-503 and the *Standard Detail Library*.

5-2.1.2 **Facilities With Workrooms Less Than 50,000 Square Feet (MSBD)**

In MSBDs, the CIO contains approximately 130 usable net square feet, not including the stair. It encompasses the entire floor space, and the lower level is used as a crawl space. The lower level interstitial space must have a lockable door. The electrical closet and power distribution areas for the cameras may be placed in the hallway or on the same level as the monitoring area. HVAC systems must be designed to accommodate heat load from power supplies. Unlike the P&Ds, which have a nondomicile office, the MSBD CIO does not have a toilet room, and a written request from the local INC is necessary for its inclusion. If a toilet room is added, the area of the CIO must be increased to accommodate the size of the toilet room.

5-2.1.3 **Facilities With Workrooms 50,000 Square Feet and Larger (P&D)**

P&Ds have both a nondomicile office and a CIO with a covert connection between the two spaces. The CIO contains a minimum of 200 usable net square feet. The CIO must always be on the upper level overlooking the workroom floor. The upper level is designed to house the CCTV equipment and the observation windows; it is also the access point into the LOG, if required. This upper level is accessed by stairway, which is used to move equipment in and out of the room.

5-2.2 **Architectural Design Requirements**

5-2.2.1 **Observation Windows**

The CIO must have one-way glazed windows providing coverage of the workroom floor. These windows must be located on two of the walls and must occupy a third of the wall space. An observation unit may be used at the stairway landing if this helps in obtaining additional viewing of critical areas. The windows may be vertical or angled out from the top at up to 12.5 degrees from vertical. The window sills will be 24 inches AFF.

5-2.2.2 **Blackout Curtain**

A blackout or light-tight curtain over the observation window is necessary to prevent movement and light in the CIO from being visible on the workroom floor. The curtain must be attached to a hospital curtain track, which is mounted to the ceiling. The curtain must be installed in multiple sections that attach to each other and to the wall by Velcro™ or some other mechanical device. It must drape to the finished floor and must be designed and installed to allow an individual free movement between the curtain and the wall without being detected from outside the CIO.

5-2.2.3 Doors

All CIO doors are to swing inward, including all breakout doors if a LOG is provided. In processing plants, they help control the HVAC in the room and they limit access to the space to authorized personnel only. The doors must be sealed to prevent dust from entering the space. They are required to have Inspection Service locks keyed to the inspector's key.

5-2.2.4 Interior Finishes

The walls and ceiling of the space must be painted flat black. The floor finish must be carpet which is dark in color and glued down, similar to that of the LOG; the stairs and toilet room can use other floor finishes as appropriate. A white or yellow safety strip must be placed on the top and bottom tread of the stairs.

5-2.2.5 Sound Attenuation

The CIO and observation windows must meet an STC rating of 45 or higher. This can be accomplished by using insulating glass, caulking all joints and frames, and using heavy curtains over the windows. To reduce noise from movement of the structure, the floors and stairways must be made of poured lightweight concrete on metal pans supported by a steel structure. The toilet room, if provided, must meet the sound insulation requirements of 5-2.2.6.

5-2.2.6 Toilet Room

Except as noted in 5-2.1.1 and 5-2.1.2, a toilet room must be provided in the CIO if the facility does not have any other Inspection Service office space with toilet rooms. The CIO toilet must have a quiet flush valve with a pressure-reducing valve to minimize the operating pressure. Sound insulation must be installed on cast iron drainpipes to minimize noise, or sound attenuation must be provided in all surrounding walls and ceilings.

5-2.3 HVAC Requirements

The HVAC for the CIO must interface with the building master system and controls. The CIO must have individual controls and sensors to ensure that a comfortable environment is maintained. The air must be filtered to keep dust from entering the room. The HVAC system must also have humidity control. In new construction, it is required that exhausts from the CIO be vented either through the ceiling of the CIO to the workroom or through the exterior wall to the outside of the building. In existing buildings, a stand-alone system may be used, but must be vented through the roof or exterior wall.

Additional information is provided in Handbook AS-503. Consult with the local inspector before the design process.

5-2.4 **Electrical Requirements**

5-2.4.1 **Lighting**

During normal operation, the interior of the CIO must remain dark for best covert observation. The lighting for the CIO is to be controlled by a switch at the top of the stairwell. The stair must have step lighting on the top and bottom riser and every third riser in between. The step lighting must be louvered and recessed, and the wattage of the lamps must be no more than 7.5 watts (W). Step lighting is to be controlled by three-way switches with pilot lights at the top and bottom of the stairs. Light switches for operating cleaning lights on the stairs must be adjacent to the entrance door and at the top of the stairs; therefore, three-way switches are recommended.

5-2.4.2 **Power**

A 100-amp electrical panel with 20-amp dedicated circuits must be provided. A minimum of one convenience duplex outlet and one standard information outlet (I/O) must be provided adjacent to the console. More duplex outlets will be required if the camera transformers are located in the CIO. In an MSBD facility, the 100-amp panel must also provide the power for all cameras.

Step-down power transformers are not to be installed in the Inspection Service office space. In MSBDs, a transformer can be installed in the lower level interstitial space if adequate ventilation is provided and if it is permitted by local code — this is not the transformer for the cameras. In MSBDs, camera transformers may be located adjacent to the cameras or may be mounted on a board or some other structure within the room. The wiring between the 110-volt source and the transformers must be uniformly laid out and labeled. The wiring from the transformer must be placed on a cross-connect board and then interconnected to the camera power circuit.

5-2.4.3 **CCTV Transmission and Video Circuits**

All video cabling coming into the CIO must have at least 20 feet of pigtail. In P&Ds, the wiring terminates in a separate rack and is cross-connected to the equipment. In MSBDs, wiring terminates in a patch panel in the same rack as the equipment. If the facility has a retail security CCTV system or a site security CCTV system, those systems must be individually looped through the manager's office equipment into the CIO equipment. In a P&D, the cameras obtain their power from the nearest panel, even though they are 24 Vac.

5-2.4.4 **Cable Routing**

All cabling must be in conduit or routed through cable trays. Where there is a LOG spine, the top of the LOG may be used as the cable tray. "O" rings, "J" hooks, and cable ties to the structure are unacceptable. Daisy chaining of control circuit wiring is not allowed. The wiring must be directly wired from the camera to the CIO. Splicing of data and video circuits is not allowed.

5-2.5 Console and Equipment

The layout and design of the CIO must follow the criteria found in Handbook AS-503. The console houses all CCTV operating equipment including the monitors, recorders, multiplexers, switchers, and computer. If the facility has more than 10 interior workroom criminal investigative CCTV cameras, a graphical user interface (GUI) must be provided. If the facility has more than 30 CIS cameras, a second console is required.

The currently specified console is a three bay design with 9-inch monitors located in the left bay; a 21-inch monitor in the center bay, with the computer monitor directly overhead; and the multiplexer and recorders located in the right bay. The console comes with task lighting. In P&Ds, a separate equipment rack must be provided for the wiring and control equipment; the console will house only the operating equipment. For the most current requirements, see Handbook AS-503, the *Standard Detail Library*, and the *Master Specification* for further information.

5-2.6 Intrusion Detection System

Whether the CIO is in a processing plant or retail and/or delivery facility, it must be provided with an intrusion detection system. In a processing plant, the system is part of the main IDS system and is also remotely monitored at a designated Inspection Service-controlled location. In a retail and/or delivery facility, the main intrusion detection system for the facility must be partitioned to allow the CIO to have its own keypad for arming and disarming the alarm. The alarm must be programmed in such a way that the main keypad of the facility does not indicate when the CIO's intrusion detection system is armed or disarmed.

5-3 Criminal Investigative CCTV System

The criminal investigative CCTV system is used exclusively by the Inspection Service and only for criminal investigations. For additional design specifications refer to Handbook AS-503 and the latest *Master Specification*, Section 13704, Criminal Investigative CCTV System. Also follow the information found in the *Standard Detail Library*.

The following criteria must be used for each facility type; where any requirement is specified by a particular program name (i.e., SSBD, MSBD, or P&D), such a requirement is to be construed as applicable to any facility of that size range, including alternate quarters. Refer to Handbook AS-503 for additional design criteria.

5-3.1 Facilities Less Than 9,000 Square Feet (SSBD)

If the facility is projected within 10 years to meet the employee complement threshold, these building sizes must be designed for future installation of cameras. Workroom junction boxes must be located as required in 5-1.3. A junction box must be placed over each IRT workstation, each cash register,

and/or each POS terminal as noted in 5-1.4.1. A junction box must also be located in the platform area and in the mail vestibule. Each junction box must be connected to rigid conduit with pull string that home runs back to the CIO. A central pull box, sized appropriately to accommodate all the wiring, may be used in the design of the home run.

5-3.2 **Facilities With Workrooms Less Than 50,000 Square Feet (MSBD)**

The default workroom camera junction box layout is based on a 40-foot grid, with an additional 20 feet of flexible metal or polyvinyl chloride (PVC) coiled pigtail conduit. The junction box locations on the standard drawings are there for the electrical contractor to install all appropriate conduit and wiring; the actual placement of cameras is determined by the final OSL and Inspection Service input. Cameras must not be located within 20 feet of any wall.

Each junction box must contain power, signal, and control wiring. The cable must be sized to meet the power requirements of the camera. Conduit or cable trays must be used to carry cables from the junction boxes back to the 100-amp panel in the CIO.

If the facility has carriers, junction boxes must be located as required in 5-1.3. This coverage takes precedence over the 40-foot layout grid found in the MSBD standard plans.

At least one camera must be located in the employee lunchroom, and one camera on the workroom side of each post office box alcove. If the facility has a BMEU, camera coverage is to be provided at counters and loading areas. One junction box without a camera must be located in the carrier or mailing vestibule.

At the carrier loading platform, one camera must be placed every 60 feet. Cameras must have visibility into the carrier vestibules. The placement of cameras for maximum PTZ coverage should be considered. Placing cameras against walls is not recommended. At the mail platform, one camera is to be placed for every three truck dock openings. Cameras must be mounted to give the best visibility into the truck beds. If necessary, a fixed camera can be mounted to monitor the pedestrian entrances and the vestibule doors. Environmental PTZ mirrored domed housings with armor cabling must be used on all exterior locations.

If the facility has a postal retail store, the criminal investigative CCTV cameras must be placed as follows: one camera must be mounted above the ceiling over each IRT workstation, each cash register, and/or each POS terminal as noted in 5-1.4.1.

5-3.3 **Facilities With Workrooms 50,000 Square Feet and Larger (P&D)**

The workroom junction box locations must be on a 60-foot grid, with an additional 50 feet of flexible metal or PVC coiled pigtail conduit. The junction box locations are there for the electrical contractor to install all appropriate

conduit and wiring; the actual placement of cameras is determined by the final OSL and Inspection Service input. Cameras must not be located within 30 feet of any wall.

Each designated location must have two junction boxes: one contains 110-Vac power wiring, and the other contains signal and control wiring. The pigtail conduit must be attached to the signal and control junction box and is used for final placement of the camera.

Power is to be obtained from the nearest electrical panel. No more than four nonadjacent cameras can be on the same circuit. A step-down transformer is to be installed on the 110-Vac junction box, with the low voltage output fed to the other junction box and into the flexible conduit for connection to the camera.

All cabling must be home runs except metallic and fiber combinations, where the metallic portion runs to the nearest CCTV fiber intermediate distribution frame (IDF) and then goes directly to the CIO on fiber trunk. Conduit or cable trays must be used to carry cables from the junction boxes to the CIO.

The RG-59 cable must have a 20-gauge center conductor, and the center conductor and shield must be 95 percent copper. The signal cable and power cable must be sized as appropriate in accordance with the camera manufacturer's recommendations.

If the facility has carriers, junction boxes must be located as required in 5-1.3. This coverage takes precedence over the 60-foot grid layout.

At least one camera must be located in the employee lunchroom, and one camera on the workroom side of each post office box alcove. If the facility has a BMEU, camera coverage must be provided at the counters and loading areas.

At the mail platform, one camera must be placed for every three dock doors. If the facility has multiple docks or dock openings, the cameras must be staggered from the front to the back wall of the dock area so that different viewing angles are achieved. The cameras must be able to view into the truck beds. At the carrier loading platform, one camera must be placed at every 60 feet. The placement of cameras at end walls or at the end of carrier loading canopies should be avoided when laying out locations. Environmental PTZ mirrored domed housings with armor cabling are to be used on all exterior locations.

If the facility has a postal retail store, the criminal investigative CCTV cameras must be placed as follows: one camera must be mounted above the ceiling over each IRT workstation, each cash register, and/or each POS terminal as noted in 5-1.4.1. Note that the CCTV security system cameras, which are separate from the criminal investigative cameras, must be connected into the CIS.

5-4 Criminal Investigative Test System

Reserved for future information.

5-5 Lookout Galleries

For those locations where LOGs are currently installed or are to be installed as part of the spine, the following information is provided for their design.

5-5.1 Design and Construction Standards

The design and construction of LOGs must comply with Standard Details P2-9-2a through P2-9-2k1 and P5-8-2a through P5-8-2b, as well as with criteria found in Handbook AS-503. Alternatives may be submitted, but must be documented to show that they are equal to or better than the standard LOG details, and that they would cost less to build. Any request to construct a nonstandard LOG, along with supporting details and information, must be submitted at the time of bid. The request must be submitted through the contracting officer's representative (COR) to the Inspection Service for review and evaluation. The design of the LOG structure must satisfy applicable building codes.

5-5.2 Types of LOGs

5-5.2.1 Suspended

The clearance height for LOGs depends on the type of facility and conditions, although the following minimum clearances must be met for suspended LOGs. A minimum 8-foot 6-inch clearance must be provided beneath the LOG where forklift trucks are used and 8-foot doors are installed. A minimum 7-foot 6-inch clearance must be provided beneath the LOG in customer service facilities and under conditions where forklift trucks are not used. These two clearance heights are minimums only — the LOG must be constructed as high as possible above the finished floor.

5-5.2.2 Floor-Mounted

Floor- or column-mounted LOGs must be constructed as high as possible above the finished workroom floor to provide the best possible visibility. At minimum, they must be at least 2 feet above the floor. Floor-mounted LOGs may be used under the following conditions: if the underside of the roof structure is too low for a suspended LOG, or if the structural integrity of the building or other documented condition precludes the installation of a suspended LOG.

For observation of carrier loading and mail vestibule areas, the floor-mounted LOG must be located as high as possible or must be attached to the underside of the canopy. This must be designed with special care to provide maximum observation of the entire dock area and into the cargo compartments of trucks and other vehicles being loaded or unloaded.

5-5.3 Design Requirements

5-5.3.1 Structural

Structural support framing, coupled with the wall, floor, and roof members of the building, must provide a rigid structure that will not sway, deflect, squeak, or shake when an inspector is walking or running inside the LOG.

Intermediate columns to support the LOG are permissible only when there is no other viable alternative and when representatives of the Facilities organization approve the design. The framing systems must not protrude or interfere with the view from the observation units.

The LOG system must be designed for a live load of 25 pounds per square foot (psf) plus dead load or local code requirements, whichever is more stringent. The flooring is to be constructed of lightweight concrete material. If the building is located in a seismic zone, the LOG must meet the requirements for seismic bracing and expansion control joints. Any added elements must be designed to prevent sound transmission from the LOG to offices or the workroom and to preclude visibility into the LOG from offices or the workroom.

5-5.3.2 Architectural

5-5.3.2.1 Visual Obstructions

The location of the building lighting fixtures and HVAC ducts must be adjusted as necessary to avoid directly or indirectly blocking the view from the LOG. Pipes, mechanization equipment, mail moving systems, and structural members must be located so that they do not obstruct the line of sight from any observation unit. Workroom light fixtures must be located at least 5 feet above the finished LOG floor level to avoid obstructing the line of vision from the observation units. Light fixtures, except for LOG cleaning lights, must not be attached to the outside of the LOG structures.

5-5.3.2.2 Changes in Floor Elevation

The floor of the LOG system must be at one elevation, if possible. When changes in elevation are required, ladders protected by safety rails are to be used and must be constructed as shown in the *Standard Detail Library*. Safety rails and ladders should be painted gloss white for safety. Steps and ramps are not permitted, except when approved in writing by the INC. If the distance between LOG floor levels exceeds 12 feet, install staggered ladders for safety (see the *Standard Detail Library*).

5-5.3.2.3 Headroom

A minimum 6 feet-6 inches of clear headroom must be provided within the LOG. Overhead obstructions such as beams, ducts, pipes, wires, and the like are not permitted. Written concurrence must be obtained from the INC for a reduction in interior clear headroom. The limit for a reduction in interior headroom is 1 foot for a maximum length of 8 feet, for a clear headroom of 5 feet-6 inches. All unavoidable cross-penetrations, obstacles, and reductions in ceiling height must be padded, be marked, and have telltales affixed to

them (see the *Standard Detail Library*). A clear headroom of 6 feet-6 inches must be maintained above ladder step-off/step-on points in all breakouts and entry wells and at all ladder-assisted changes in elevation. Refer to 5-5.3.4.1 for requirements on glow lamps at changes in ceiling or floor level.

5-5.3.2.4 **View Ports**

Observation from the LOG is accomplished using view ports, also known as observation units or Streich units. The Streich 0-1240 observation unit must be used at all locations where the unit is located 5 feet-6 inches or more above the finished workroom floor. Special circumstances may result in modifications to the use of the 0-1240 unit. See Handbook AS-503 for details and design criteria.

5-5.3.2.4.1 **Wall-Mounted**

Wall-mounted observation units in the LOG should be spaced at a maximum of 12 feet OC and not closer than 4 feet OC. The units must be staggered so that they are not opposite each other or located over floor observation units (see the *Standard Detail Library*). Blackout curtains must be installed if backlighting is a problem in the LOG. Use Velcro attachments for these curtains, mechanically fastened at 6 inches on center at the wall. In special situations, exceptions may be granted only if (a) special screening of observation units is provided in the design, and (b) prior written approval is received from the INC.

When the LOG traverses the length of a platform (open or enclosed), the observation units must be spaced to provide a view into the truck or trailer vans. The standard height of view ports is shown in Standard Detail P2-9-2b. When necessary, this height may be raised or lowered to provide maximum visibility.

If observation units are installed in walls over 6 inches thick, the combined height of the wall from the finished LOG floor to the view port ledge and the depth of the view port ledge must not exceed 3 feet-10 inches. Either 45-degree beveled or fully round vertical corners or a foam rubber cushion must be provided at these openings.

When a LOG is provided for viewing the interior of a vestibule, an interior-type observation unit (0-1240) is to be used .

Carrier loading areas and AMC drive-through areas must be designed to provide maximum viewing. The LOG is to be located as high as possible. Use the 0-1240 observation unit.

To enhance visibility over the retail service areas, lunchroom, BMEU, and conference rooms, architects should consider using one-way glazed panels, with 20 percent light transmission, which may be installed in lieu of observation units. These panels must be installed to give a view of the entire area but must not provide a mirror image of any transaction. The panels must provide visibility equal to or greater than an observation unit. The one-way glazed panels are to be located at the elevation that provides the best visibility of the full-service counters. They must be installed to prevent movement or noise from glass rattle. A 4-inch kick plate must be provided

beneath the panels when the panels are used in the public areas. The one-way glazed panels are provided and installed by the contractor.

The lobby, counter soffits, and menu boards must be designed to allow an inspector to observe customers standing at the service counter. At a minimum, the inspector must be able to clearly see the face and upper body of a person 6 feet tall. During the design phase, the A/E must provide a detailed drawing showing these relationships and note the fact that this requirement must be met during construction. The designer should consider locating the LOG perpendicular to the retail counter line (IRT workstations).

The Postal Service provides the interior (0-1240) and exterior (0-1239) wall-mounted observation units. The contractor is responsible for installing these units and providing the finished frame sill, screws, bolts, nuts, washers, insulating material, and other equipment necessary to complete the installation. Fasteners must not protrude on the inside of the LOG after the observation units are installed. The contractor must use a black caulk to seal around all light-emitting openings after installation, and secure all external observation unit fasteners to prevent their removal and to prevent unauthorized entry.

5-5.3.2.4.2 **Floor Units**

Conical floor observation units are furnished and installed by the contractor. The floor unit must be designed in accordance with the *Standard Detail Library* and Handbook AS-503. The floor unit is provided with a metal frame or sleeve to facilitate installation; finished in flat black; and installed so that the top lip of the cone is flush (level) with the top of the LOG floor substrate material, not the carpet, thus eliminating a tripping hazard. Floor observation units within the gallery must be centered at a maximum spacing of 8 feet OC (see the *Standard Detail Library*).

5-5.3.2.4.3 **Removal of LOG View Ports**

When a facility is deactivated, the postmaster or facility head is responsible for ensuring the removal of all wall-mounted LOG observation units and Inspection Service locksets from office doors and all breakout doors and entrance doors. The locksets are to be forwarded to the local INC. Observation units must be sent to the district warehouse operation for future use.

5-5.3.2.5 **Viewing Distance**

See 5-1.3 for design requirements.

5-5.3.2.6 **Breakouts (LOG Exits)**

5-5.3.2.6.1 **Location**

Exits from the LOG (breakouts) must be located as necessary to provide ready access to the floor areas observed. Where possible, breakout shafts are to be located in or adjacent to support areas to avoid conflicts with the mail handling operations. A breakout must be provided as an emergency exit at dead-end LOG runs over 20 feet long. When a fire door is required where the LOG penetrates a fire wall, at least one breakout must be located on each side of the fire wall. The words "Fire Door" must be painted on both

sides of the door in illuminated semigloss white paint using 3-inch letters centered at 5 feet above the floor.

Breakouts to primary viewing areas are essential. Breakouts to secondary viewing areas are provided if required by security or safety needs for the particular facility. Breakouts are prohibited in stamped paper rooms, registry areas, in rooms requiring individual accountability, toilet rooms, and locker rooms except those shared by male and female employees.

5-5.3.2.6.2 **Breakout Doors**

All breakout doors are required to meet the following criteria:

- a. Doors must swing into the LOG, but away from the ladder.
- b. They must have a 10-inch by 10-inch one-way glazed viewing panel (see the *Standard Detail Library* for breakout design).
- c. They must be located so that the floor inside the breakout door is level with the floor outside the door.

5-5.3.2.6.3 **Glazing**

All one-way glazing to be used throughout the LOG must reduce light transmission by at least 80 percent. For safety reasons, the glass must be tempered if the glazed area is larger than 100 square inches. Smoked glass and acrylic materials are not allowed. Burglar-resistant glass may be required when this glass is in an exterior or security wall. Except for the glass shipped with the observation units, the contractor must furnish and install all one-way glazing. The contractor must replace any damaged one-way glazing in observation units.

5-5.3.2.7 **Finishes**

The following criteria must be used for LOG finishes:

- a. The exterior of conical floor observation units must be painted flat black, except for the 1-inch flange ceiling trim, which is to be painted to match the color of the adjoining underside of the LOG.
- b. The exterior of wall observation units must be painted to match the adjacent wall, and the interior must be painted flat black.
- c. Commercial grade, dark color, low-pile carpets (Federal Specification No. DDD-C-00173) should be used for the floor finish material. The carpet is required to control noise and must be fire resistant, with a flame spread rating of less than 75 when tested in accordance with ASTM-E-684, *Standard Method of Test for Surface Burning Characteristics of Building Materials*. Carpeting must be cemented to the floor. Other floor coverings may be approved for the CIO and LOG when submitted through the deviation process.
- d. The interior of the LOG and breakouts must be painted with two coats of flat black paint.
- e. A 2-inch sound attenuation blanket or equal sound-deadening materials must be provided in the walls, ceilings, and floors.
- f. Materials must be noncombustible with a flame spread rating of 25 or less in accordance with ASTM-E-684 or local conditions, whichever is

more stringent. The architect must verify current local combustibility standards.

5-5.3.3 **HVAC**

Ventilation must be fan-forced in order to maintain a constant flow of air through the LOG at 20 to 50 feet per minute. The LOG intake louvers must be lightproof (darkroom type), installed at the ends of the LOG opposite the exhaust fan connections, and sized for a face velocity not to exceed 250 feet per minute. The ventilation is to be provided from either the building return air system or a separate exhaust fan. If the building system is used, a grille or louver is to be provided at the LOG return air connection with at least one duct elbow between the LOG and the return air plenum (designed to maintain a maximum noise criterion of 40 dB). If a separate fan is used, the air must be exhausted into the workroom, preferably through the LOG ceiling. All LOG exhaust fan electrical breakers must be marked with either embossed tape or a plate stating: "Breaker to Be Operated by Authorized Persons Only." The LOG ventilation system must be controlled as part of the facility HVAC system or be a continually operating system. No HVAC operating controls or on/off switches are to be located in the LOG. Louvers in breakout doors are not permitted.

5-5.3.4 **Electrical**

5-5.3.4.1 **Convenience Outlets**

Convenience outlets are to be provided as follows:

- a. Duplex, grounded-type, illuminated convenience outlets that conform to UL Standards 498 or 544 or standard duplex grounded-type outlets are to be provided for the glow (night) lights that are furnished by the Postal Service and installed by the contractor. See ASM 533.565.
- b. Convenience outlets must be mounted 24 inches above the LOG floor.
- c. Outlets must be located at all changes in direction, at dead ends, at the end of mailing and carrier loading platform observation laterals, and at three-way (T) intersections. Each outlet is to be centered on a wall so the glow light is visible, indicating a change of direction. Refer to the *Standard Detail Library* for the exact placement of outlets (for example, on both walls at a 90-degree corner, 18 inches from the corner).
- d. Convenience outlets are to be mounted at a maximum of 50-foot intervals in long LOG runs, with at least one outlet in each run.
- e. All obstructions (including ladders that project into the side of the LOG, fire doors, beams, pipes, etc.) must have a convenience outlet for glow lights on each side of the obstruction.
- f. Convenience outlets must be placed at all changes in floor elevation (top and bottom) and at the top and bottom of ladder wells. Where changes in elevation require two ladders, each ladder must have properly located convenience outlets. At the top of the ladder well, an outlet must be placed on the wall opposite the ladder, centered between the safety rails, as shown in the *Standard Detail Library*. At the bottom of wells or the bottom of changes in elevation, an outlet must be

located adjacent to and on the same wall as the ladder, between the ladder and the breakout door or an adjacent corner.

- g. Outlets are to be controlled with circuit breakers located on the cleaning light electrical panel. The circuit breakers for these outlets must be identified with either embossed tape or a marked plate stating: "Breaker to Be Operated by Authorized Persons Only." The convenience outlet and the cleaning lights must be connected to the same circuit. The LOG convenience duplex outlet circuits must be dedicated circuits.
- h. Dimensions on detailed drawings must be sufficient enough to reflect precise duplex outlet locations for each described condition.

5-5.3.4.2 **Cleaning Lights**

Cleaning lights are to be provided as follows:

- a. To illuminate all changes in elevation and direction, extremely low-profile cleaning lights must be provided that are equal or similar to ALKCO Octron supertouch, under cabinet, 300 series fixture model 332, one-tube, fluorescent light fixtures (with a lens cover). The lights must be 4-foot, 34-watt, energy-saver, fluorescent fixtures located on the wall, immediately below the ceiling. *Cleaning lights must not be mounted on the ceiling.*
- b. In long runs of the LOG, cleaning lights must be located every 40 feet. All entry and breakout wells must have cleaning lights installed at the top of the LOG ladder well on the wall, at the intersection of the wall and ceiling (see the *Standard Detail Library*).
- c. The cleaning lights are to be controlled with one toggle switch located in the LOG breakout nearest the janitor's closet and one at the exterior entry to the LOG or entry to the CIO.
- d. In multi-inspector domiciles, the on/off switch and pilot light are to be installed in the inspector's suite (see the *Standard Detail Library*). The pilot light must be a red jewel light in a single gang box located in an inspector's office. If the facility does not have a domicile office, the pilot light may be placed in the postmaster's office.
- e. The cleaning lights are to be controlled from the same electrical panel as the convenience duplex outlets for the LOG.

5-5.3.4.3 **Telephone System**

A telephone system may be required in the LOG for facilities with multiple LOG spines. The A/E will be advised of this requirement at or before the preliminary design concept (10 percent) review meeting. When telephones are required, provide telephone stations having a voice-only phone jack and visual call signal light. Additional requirements for the telephone system are as follows:

- a. An audible enunciator is not to be provided.
- b. Telephone service and signal lights must be installed at a maximum of 50-foot intervals.
- c. A minimum of one station must be provided in every LOG run.

- d. The visual call signal light consists of a flush-mounted series FS or FD junction box with a blue, raised jewel lens (minimum 1-inch diameter, minimum 5/16-inch rise) and pilot light. The pilot light must have a 6-watt, 110-volt, candelabra-type 6S6/B blue clear bulb.
- e. Signal lights must be centered 36 inches above the finished floor and must be 24 inches from any observation unit. The telephone jack must be installed at the same location as the signal light (see the *Standard Detail Library*).
- f. The signal lights are operated by a control relay (supplied, located, and installed by the local telephone company). The ringing voltage of the telephone causes the signal lights to actuate.
- g. The installation and power supply for the control relays must be included in the construction contract. The power for the signal light circuit is furnished from the same electrical panel supplying power for the cleaning lights and convenience outlets.
- h. The contractor is responsible for installation of the telephone jacks and associated wiring.

5-5.3.4.4 **Electrical Circuit Security**

Each electrical circuit for the CIO, LOG, and/or Inspection Service offices must be a dedicated circuit with lockouts, including the following: duplex outlet circuits, cleaning light circuits, telephone relay circuits, intrusion detection system power circuits, CCTV system circuits, and all other Inspection Service-related circuits.

5-5.3.5 **Fire Safety**

The Postal Service does not require fire and smoke alarms or fire sprinkler systems inside LOGs. If the Postal Service is required by local code to install a fire alarm system, sprinkler heads, or smoke detectors, they must be flush mounted (recessed). They may be mounted in the center of the LOG ceiling or at the top of a sidewall.

If the LOG is adjacent to a fire-rated wall and a view port is cut through the wall, or if the LOG passes through a fire-rated wall, fire dampers must be installed. If roll-down fire dampers are installed, a prewarning device (sound and light) is required and must activate prior to the dampers being activated.

If exit signage is required in the LOG, it must be designed to mount flush to the wall and must not be mounted any higher than 18 inches from the floor. Flush mounting in this case means the unit does not stick out any further than an outlet cover. The self-contained, self-illumination type signs (Beta ray lights) should be considered.

Appendix A

Source Materials

This table lists all known applicable Postal Service and industry standards used to prepare this handbook.

Source	Documentation
AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM) 1916 RACE STREET PHILADELPHIA PA 19103-1187	<ul style="list-style-type: none"> ■ Volume 15.07, <i>End Use Products</i>, Section 15, General Products, Chemical Specialties, and End Use Products ■ F476, <i>Standard Test Methods for Security of Swinging Door Assemblies</i> ■ F571, <i>Standard Practice for Installations of Exit Devices in Security Areas</i> ■ F883, <i>Standard Performance Specification for Padlocks</i> ■ F967, <i>Standard Practice for Security Engineering Symbols</i> ■ F1029, <i>Standard Guide for Selection of Physical Security Measures for a Facility</i> ■ F1233, <i>Standard Test Method for Security Glazing Material and Systems</i> ■ E1946-98, <i>Standard Practices for Measuring Cost Risk to Building and Building Systems</i>
AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) 1430 NEW BROADWAY STREET NEW YORK NY 10018 BUILDERS HARDWARE MANUFACTURERS ASSOCIATION (BHMA) 60 EAST 42ND STREET NEW YORK NY 10165 (They sponsor and publish the documents listed here.)	<ul style="list-style-type: none"> ■ 08700, <i>Hardware and Specialties — Design Specifications</i> ■ ANSI/BHMA A156.13-1987, <i>American National Standard for Mortise Locks and Latches</i>
UNDERWRITERS LABORATORY UL PUBLICATIONS STOCK 333 PFINGSTEN ROAD NORTHBROOK IL 60062	<ul style="list-style-type: none"> ■ UL 972, <i>Burglary Resisting Glazing Material</i> ■ ANSI/UL 752, <i>Standard for Bullet-Resisting Equipment</i> ■ UL 608, <i>Standard for Burglary Resistant Vault Doors and Modular Panels</i>

Source	Documentation
THE MERRITT COMPANY PO BOX 955 SANTA MONICA CA 90406-0955	<ul style="list-style-type: none"> ■ Protection of Assets Manual, Volumes 1–4
NATIONAL FIRE PROTECTION ASSOCIATION 1 BATTERY MARCH PARK PO BOX 9101 QUINCY MA 02269-9904	<ul style="list-style-type: none"> ■ 101, <i>Life Safety Code</i>
THE AMERICAN INSTITUTE OF ARCHITECTS	<ul style="list-style-type: none"> ■ Architectural Graphic Standards, John Wiley & Sons, Inc.
UNITED STATES POSTAL SERVICE 475 L'ENFANT PLAZA SW WASHINGTON DC 20260	<ul style="list-style-type: none"> ■ Handbook RE-4, <i>Standards for Facility Accessibility by the Physically Handicapped</i> ■ Building Design Standards (CD-ROM) ■ Handbook AS-503, <i>Standard Design Criteria</i> ■ <i>Standard Detail Library</i> ■ <i>Postal Retail Store Design Guide</i> ■ <i>Postal Retail Store Activation Guide</i> ■ <i>Remote Encoding Centers Specifications</i>
<i>Code of Federal Regulations</i> , Title 41	<ul style="list-style-type: none"> ■ Americans With Disabilities Act
US DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION	<ul style="list-style-type: none"> ■ FAR 107, <i>Civil Aviation Security Requirements</i> ■ DOT/FAA/CS-93/1, <i>Recommended Security Guidelines for New Airport Construction and Major Renovations</i>
DEPARTMENT OF DEFENSE DIRECTOR DIA ATTN RTS-2D WASHINGTON DC 20340-3081	<ul style="list-style-type: none"> ■ DIAM 50-3, <i>Physical Security Standards for Construction of Sensitive Compartmented Information Facilities (SCIF)</i>
US ARMY ADJUTANT GENERAL PUBLICATIONS CENTER 2800 EASTERN BOULEVARD BALTIMORE MD 21220	<ul style="list-style-type: none"> ■ FM 19-30, <i>Physical Security</i> ■ TM 5-853-1, Volume 1, <i>Security Engineering</i> ■ TM 5-853-2/ARMAN 32-1071, Volume 2, <i>Security Engineering — Design Procedures for Barrier Systems</i>

Appendix B

Inspection Service Divisions

The following table lists Inspection Service divisions by area of responsibility.

IS Division, HQ City, or Field Office	Area of Responsibility by ZIP Codes
Atlanta	300–319; 324–325; 350–352; 354–369; 373–374; 376 (except 37620–37625); 377–379
Northeast — Boston	010–069
Northeast — Buffalo Field Office	120–123; 128–149
Mid-Atlantic — Charlotte	270–299
Northern Illinois — Chicago	498–499; 530–549; 600–608; 610–611; 613
Cincinnati	400–427; 430–433 (except 43301–02, 14, 16, 22–23, 26, 30, 32, 35, 37, 40–42, 45–46, 51, 56, and 59); 437–438 (except 43804, 32, 37, and 40); 43901–43989 (except 43920, 45, 62, and 68); 44693, 95, and 99; 450–457 (except 45310); 459
Rocky Mountain — Denver	800–831; 840–847
Michigan — Detroit	460–497
Southwest — Fort Worth	730–769; 77326–28, 32, 35, 50–51, 60, 68–69, 74, and 76; 77519, 33, 35, 38, 61, 64, 75, 82, and 85; 77611–16, 19, 22, 24–27, 29–31, 39–43, 51, 55–56, 59–60, and 62–64; 77700–11 and 26; 790–799; 885
Gulf Coast — Houston	770–772; 773 (except 77326–28, 32, 35, 50–51, 60, 68–69, 74, and 76); 774–775 (except 77519, 33, 35, 38, 61, 64, 75, 82, and 85); 776 (except 77611–16, 19, 22, 24–27, 29–31, 39–43, 51, 55–56, 59–60, 62–64); 777 (except 77700–11 and 26); 778–789
Midwest — Kansas City Field Office	500–528; 640–653; 656–693
Southern California — Los Angeles	900–918; 923–931; 934–935; 922 (except 92222, 27, 31–33, 43–44, 49, 50, 51, 57, 59, 66, 73, 81, and 83)
Memphis	370–372; 375; 380–387 (except 38721, 45, 63, and 65); 388–389 (except 38924); 39038, 67, 90, and 97; 39107, 08, 15, 60, 66, and 76; 39339 and 46; 397 (except 39738, 39, and 41); 716–729

IS Division, HQ City, or Field Office	Area of Responsibility by ZIP Codes
Miami	32948, 57–58, 60–64, and 70–71; 330–334 (except 33440 and 33471); 33825, 52, 57, and 70–71; 340; 349
Newark	070–079; 08005, 06, 08, 50, 87, and 92; 085 (except 08505, 11, 15, 18, 54, and 62); 08606 (except 08640–41); 087–089
Gulf Coast — New Orleans Field Office	38721, 45, 63, and 65; 38924; 390 (except 39038, 67, 90, and 97); 391 (except 39107, 08, 15, 60, 66, and 76); 392; 393 (except 39339 and 46); 394; 396; 39738, 39, and 41; 700–714
New York Metro	003–005; 090–098; 100–119; 124–127
Philadelphia Metro	080 (except 08005, 06, 08, 50, 87, and 92); 081–084; 08505, 11, 15, 18, 54, and 62; 08640 and 41; 15536; 15832, 34, and 61; 16611, 15, 21–23, 34, 38, 47, 52, 57, 60, 69, 74, 77–78, 83, 85, 89, 91, and 94; 16720, 46, and 48; 16801–5, 20, 22–23, 26–29, 32, 35, 41, 44, 48, 52–54, 56, 59, 65–66, 68, 70, 72, 74–75, 77, and 82; 169–171; 172 (except 17211); 173–199
Rocky Mountain — Phoenix Field Office	850–865; 870–884; 889–891; 893–895; 897–898; 961
Western Allegheny — Pittsburgh	150–154; 155 (except 15536); 156–157; 158 (except 15832, 34, and 61); 159–165; 166 (except 16611, 15, 21–23, 34, 38, 47, 52, 57, 60, 69, 74, 77–78, 83, 85, 89, 91, and 94); 167 (except 16720, 46, and 48); 168 (except 16801–05, 20, 22–23, 26–29, 32, 35, 41, 44, 48, 52–54, 56, 59, 65–66, 68, 70, 72, 74–75, 77, and 82); 17211; 247–268
Mid-Atlantic — Richmond Field Office	224–225; 227–246; 37620–37625
Mid-America — St. Louis	609; 612; 614–639; 654–655
St. Paul	550–588
Southern California — San Diego Field Office	919–921; 92222, 27, 31–33, 43–44, 49, 50, 51, 57, 59, 66, 73, 81, and 83
Northern California — San Francisco	932–933; 936–960; 962–969
San Juan	006–009
Northwest — Seattle	590–599; 832–838; 970–999
Tampa	320–323; 326–328; 329 (except 32948, 57, 58, 60–64, 70, and 71); 33440; 33471; 335–337; 338 (except 33825, 52, 57, 70, and 71); 339; 342; 344; 346–347
Washington Metro	200–223; 226

Appendix C

Design Review Security Checklists

This appendix contains security checklists for the FPC and/or 10 percent, 30 percent, 70 percent, and 100 percent design reviews.

Facility Planning Concept and/or 10 Percent Design Review Security Checklist

General	Yes	No
1. Has a risk analysis of the site location been completed to determine what level of security is required?		
2a. Are there outstanding security issues? If so, list them.		
2b. Have they been addressed in writing?		
3a. Are there any outstanding deviation requests?		
3b. Have they been made in writing as required?		
4. Have all outstanding security requests and deviations been answered in writing?		
Building	Yes	No
5a. Does the facility need to have a centrally controlled access control system? If so, begin determining the layout of the entranceways to limit employee entrances into the building. Note: A whole set of questions needs to be answered regarding such a system, and close relationships must be maintained with the architect, security control officer, and project manager for its design.		
5b. Who will monitor the system?		
5c. Who is responsible for inserting and removing data to determine where the various terminals belong and where the main computer will be housed?		
6a. Does a postal retail store with open merchandising exist?		
6b. If it has open merchandising, have you reviewed the layout for the closed-circuit television (CCTV) system camera locations and sensors for the intrusion detection system? Do the specifications meet current requirements? (As a reminder, the contractor installs the CCTV and IDS systems; therefore, current specifications must be verified.)		

Building	Yes	No
7. If it does not have open merchandising, does the facility still meet the requirements for installation of an intrusion detection system and/or a security CCTV system? If required, make sure they are designed into the facility.		
8. Is additional security required at either the back entrance or the lobby area?		
9. Does the box lobby have extended hours? Is it open 24 hours?		
10. Do exterior doors open into unoccupied spaces of the building (i.e., buildings and grounds room or electrical power room)?		
11. Are all exits shown? If so, determine which ones must be emergency egress only and which must be used as pedestrian entrances as well.		
12. Have you requested a completed hardware schedule by 60 percent to 70 percent phase of the design review, specifically all exterior doors?		
13. Is the building situated so that employees have direct access to their locker rooms and lunch room without having to first cross the workroom?		
Criminal Investigative System and Inspection Service Space	Yes	No
14. If the facility has lookout galleries (LOGs), does the plan depict a tentative layout in accordance with current criteria found in Handbook AS-503 for the galleries and breakouts as well as their entrances?		
15a. Has a criminal investigative system (CIS) been included in the design?		
15b. Is the CCTV camera coverage in accordance with 5-3?		
16. If no Inspection Service office space is provided, is the nondomicile space, CIS, and/or LOG entrance located where postal employees cannot readily see that entrance and have access to that entrance?		
17. If the Inspection Service has office space, does the plan show an exterior entrance for covert entry into the office in addition to a public entry?		
18. If a site layout plan is provided, is the inspector's entrance outside the security fence line?		
19a. Have you reminded the architect that all gallery doors open inward and only the exterior gallery door gets the mortise lock?		
19b. Have you reminded the architect that all other interior doors get a key-in-knob lock with a 2-3/4-inch backset?		
20. Have you provided the architect with information regarding exemption from the Americans With Disabilities Act and Handbook RE-4, <i>Standards for Facility Accessibility by the Physically Handicapped</i> , regarding the breakout doors and inspector's office?		
Site Security	Yes	No
21a. Does the site have fencing around the postal parking and maneuvering compound?		
21b. Is it an 8-foot fence?		
21c. Is the 1-foot top guard on the fence shown on the drawing? If not, has a deviation request been submitted to delete the top guard?		
22. Does the site plan show fencing around the employee parking lot?		

Site Security	Yes	No
23. Is there a secondary fence separating the employee parking from the postal vehicles?		
24. Have the fences been equipped with gates (slide, swing, or a combination of the two) as required?		
25. Is the landscaping on both sides of the fence the type that stays low (3 feet high maximum)?		
26. Are trees kept at least 10 feet from the fence line?		
27. What type of traffic flow is set up for customer vehicles, Postal Service vehicles, and employee vehicles? Is it adequate for security purposes?		

30 Percent Design Review Security Checklist

General	Yes	No
1. Have all issues raised during the 10 percent design review been addressed?		
2a. Have all deviation issues been resolved?		
2b. Is everything in writing (i.e., confirmation through minutes of a meeting or an answer via a memorandum)?		
3. Are there any new security issues that need to be addressed?		
Building	Yes	No
4. Are lights shown over all exterior doors? (The only exception is the inspector's exterior entrance, if applicable.)		
5. Review the door numbers on the drawing with the hardware schedule. Do all exterior, nonstorefront doors have a mortise lockset with the integral deadbolt as outlined in this handbook?		
6. Has adequate lighting been provided in the box lobby?		
7. Do customers have an adequate view into the box lobby to verify whether it is safe for them to enter? This is particularly important for box lobbies with extended or 24-hour accessibility.		
8. Are counters, parcel slides, vending machines, and writing counters oriented to minimize obstructing the view into the post office?		
9. Does the storefront door with the exit sign overhead have the correct hardware?		
10. Are all openings 8 inches by 8 inches or greater secured against unauthorized entry?		
11. Are all exterior doors constructed of 14-gauge steel or better?		
12. Are all doors separating the post office box and service lobbies from the workroom constructed of either 14-gauge steel or 1-3/4-inch solid core wood or, if roll-down doors, a minimum thickness of 0.125-inch aluminum?		
13. Is the doorframe constructed of 14-gauge steel and securely attached to the wall structure to prevent the frame from spreading more than 1/2 inch at the lock?		
14. Are Function F-15 mortise locks indicated on all critical doors (i.e., doors separating the post office box and service lobbies and the workroom, and pedestrian doors at the mailing vestibule and carrier vestibule) as designated in this handbook?		
15. Has the conduit been shown on the electrical drawing for the layout of the IDS, EAS, and security CCTV and CIS CCTV cameras for the postal retail store or other security needs?		
16. Is there a separate specification for the camera installation and the intrusion detection system?		
17. Are all required structural changes made at this point in the design process?		
18. Is the security hardware installed at the proper location based on whether the facility has an open or closed platform?		

Building	Yes	No
19. How are cash receipts removed from the cash register and taken to the count area? Is adequate security provided?		
20a. Review locations of and equipment planned for the postal retail store CCTV video system, IDS, and EAS. Are proper equipment, correct type, and sufficient locations provided?		
20b. Is surveillance coverage adequate to meet Inspection Service, employee, and customer needs?		
21. Are electrical outlets and adequate space provided for the EAS system as part of the postal retail store?		
Criminal Investigative System and Inspection Service Office Space	Yes	No
22. Review the LOG and CIS electrical plan. Are there sufficient outlets, junction boxes, conduit, raceways, and power?		
23. Are all electrical outlets at the safety railings in accordance with standard drawings?		
24. Are all outlets duplex?		
25a. Are all dead-end LOG runs less than 20 feet?		
25b. If not, are they equipped with a breakout?		
26. Does the LOG provide a clear space with no obstructions of at least 36 inches wide and 78 inches high from finished floor to finished ceiling?		
27. Is the clearance between the bottom of the gallery and the finished floor a minimum of 7 feet 2 inches in customer service facilities? It must be as high as the roof permits.		
28. Is the clearance between the bottom of the gallery and the finished workroom floor a minimum of 8 feet-2 inches in a processing and distribution plant? It must be as high as the roof permits.		
29. Are the wall-mounted observation units 12 feet OC, and the observations units on the opposite wall offset 4 feet?		
30a. Is a breakout provided within 110 feet of all mail processing areas? Are all breakout doors shown swinging inward?		
30b. Is the breakout door equipped with a 10-inch by 10-inch one-way glass panel?		
30c. Does the door have an automatic closure? If it does, have it removed.		
31a. Are telephones required in the LOG?		
31b. If required, are they shown?		
31c. If required, are they installed in accordance with the <i>Standard Detail Library</i> and the structured wiring program?		
32a. Is the exterior door recessed?		
32b. Does it open inward?		
32c. Does it have the mortise lock assigned to the door (931AH)?		

Criminal Investigative System and Inspection Service Office Space	Yes	No
33. Is the interior door equipped with a key-in-knob lock (2-3/4-inch backset O-912D)? The lock is furnished by the Postal Service and installed by the contractor.		
34. Is the observation window or CCTV camera in line with the vault door or stamp storage room door?		
35a. Does the CIO have the proper surveillance equipment?		
35b. Is the console equipment placement in accordance with the <i>Standard Detail Library</i> ?		
35c. Does the CIO meet the criteria based on number of CIS cameras?		
35d. Do the specifications stipulate that training is to be provided to the Inspection Service by the installer and/or equipment manufacturer and that a service maintenance contract, one year minimum, is to be included with the warranty period?		
Site	Yes	No
36a. Is the primary height of the fence without top guard 8 feet above the finished elevation?		
36b. Is there a bottom rail with a wire guide at the top?		
36c. Is the bottom fence rail kept to 4 inches or less from the finished elevation?		
36d. Does the chain link fabric rest on a grass mow strip, asphalt, or nonshifting soils?		
36e. Does the top guard have three strands of barbed wire and is it angled out by 45 degrees?		
36f. Does the top guard raise the finished height of the fence by 12 inches?		
37a. Does the facility have a secondary fence?		
37b. If it has such a fence, is this inner fence 6 feet high?		
38a. Has a computerized photometric chart been provided to show the calculations for site lighting?		
38b. Does the photometric chart show, at a minimum, 1 foot-candle of illumination at ground level at the property line and uniformly throughout the postal site? Safety may require a higher illumination.		
38c. Does the photometric chart show that the requirements are met?		
39. In facilities with access control at the gates and a CCTV system used for monitoring security, has the light level been increased for adequate nighttime viewing of the area (i.e., 5 fc at gate entrances that could be controlled by vehicle-approach sensor or pedestrian-approach sensor)?		
40a. Is the lighting in the customer parking lot at 1-1/2 fc measured at ground level?		
40b. Is the lighting at all pedestrian entrances at 2 fc measured at ground level? If access control is involved, this level may need to be higher.		
40c. Is the building well lit around the whole perimeter, especially near all exit doors except for the LOG or CIS entrance?		

Site	Yes	No
40d. Are employee entrances lit well enough to identify the person entering the facility at night?		
41a. Have bushes and trees been set back from the fence and building as required?		
41b. Is the landscaping next to the fence the low growing variety (less than 3 feet high)?		

70 Percent Design Review Security Checklist

General Checks	Yes	No
1. Have all items discussed in the 10 and 30 percent reviews been incorporated?		
2. Review specifications in regard to the requirements for hardware and hardware schedule, security CCTV, postal retail store, CIS, IDS, EAS, roll-down or folding security grilles, and access control specifications if required. Are the specifications thorough and correct?		
3. Do all the exterior doors have the proper hardware assigned to them?		
4. Be particularly attentive to the LOG details if there is a LOG in the facility. Are the details thorough and correct?		

100 Percent and/or Solicitation Documents Review

General Checks	Yes	No
1. Are all 70 percent review comments incorporated in the final documents?		
2. Is the specification package complete, and have all security issues been addressed such as the hardware schedule, glazing, and CIO?		

Appendix D

Employee Pedestrian Entry and Exit Devices

The following is a listing of approved single-door access control devices for use on ingress and egress doors and exit-only devices for use on egress-only pedestrian doors. This list does not include the locking hardware for double-door glass storefronts. All emergency-only exit doors must be equipped with 110-Vac/24-Vac power with battery backup, a local sounding device, and dry form C-relay contacts that provide interfacing with an alarm system.

Model Number	Description	Manufacturer's Address
Ingress and Egress Single-Door Access Control Devices		
P*E*D*S Centurion 8155	This is a mechanical locking system that begins with one-point locking but can add up to four locking points depending on the level of security needed. The cipher pad can be locked out manually by key but must still allow egress and relocking of the deadbolt. It is a one-hand operation. It also can be set up with an electronic keypad that identifies individual users.	SECURITECH GROUP INC 54-45 44TH STREET MASPETH NY 11378 (718) 392-9000
Model 8476-SMR-K/O-XH2	The lock is ordered in parts. Call S&G for current lock parts prior to ordering. Safemasters currently has the lock listed with GSA. This is a mechanical lock with a day and night operation controlled mechanically. A simplex lock (Unican 1000L) is used to allow the employees ingress and egress during the day by entering a combination on the cipher lock. At night a key is used to engage the upper deadbolt lock, which prevents anyone without a key from obtaining access to the facility. However, the lock allows egress at all times. At night the deadbolt is retracted with the push bar, but is reengaged when the door closes.	SARGENT & GREENLEAF INC 1 SECURITY DRIVE NICHOLASVILLE KY 40356 (606) 885-9411

Model Number	Description	Manufacturer's Address
Ingress and Egress Single-Door Access Control Devices		
Folger Adam Electric Strike Model 310-3-1 with a stand-alone access control device using existing hardware on door	This system takes the existing F15 or F20 lock and adds a UL-rated electric strike and an electronic keypad interface. The Folger Adam Electric Strike is designed to allow for daytime operation and a nighttime deadbolt situation. The Strike has a cutout to accommodate the deadbolt lock when it is thrown for nighttime use. The Strike must not release the door when the deadbolt is thrown, but the mortise lock must operate the bolt and latch to permit egress from the building.	SECURITRON MAGNETIC LOCK CORP 550 VISTA BLVD SPARKS NV 89434-6632 (702) 355-5625 HIRSCH ELECTRONICS CORPORATION 2941 ALTON PARKWAY IRVINE CA 92606 (714) 250-8888 CORBY INDUSTRIES INC 1501 E PENNSYLVANIA ST ALLENTOWN PA 18103 (610) 652-6729
Omni Lock M250TL-MD (mortise lock using Schlage 53 series lock)	This is an F20 mortise lock made by Schlage and modified by OSI with its electronic keypad. It allows up to 200 different users to access the door and can block users out by time zones. It keeps a retrieval audit trail of each user and the status of the lock. There is an override or master code that allows someone to get in at any time, even with the deadbolt engaged.	OSI SECURITY DEVICES 505 W OLIVE SUITE 757 SUNNYVALE CA 94086 (408) 720-0909
Yaletronics Touchcode with key override Series 2770	This lock is an F15 mortise lock with a built-in keypad and a exterior key override to lock the deadbolt for nighttime use.	YALE SECURITY INC PO BOX 25288 CHARLOTTE NC 28229-8010 (704) 438-1951
Egress Only — No Exterior Hardware		
Model 8476-SMR-K/O-XH2 without external hardware (call for the latest model number)	This is a modification of the above lock with no external hardware. The secondary lock stays locked at all times. It provides a two-point locking system that is ideal in the higher security requirement locations or where there is high risk of burglaries.	SARGENT & GREENLEAF INC 1 SECURITY DRIVE NICHOLASVILLE KY 40356 (606) 885-9411
Series 3700 UL 3-hour Fire Rated Series 8700 UL Life-Safety Rated	There are two types of locks in this series. Both are UL rated. One is for use on fire-rated doors and the other is for use on storefront doors. The lock provides interlocking between the door and doorframe.	ADAMS RITE 4040 SOUTH CAPITAL AVE PO BOX 1301 CITY OF INDUSTRY CA 91749 (213) 699-0511

Model Number	Description	Manufacturer's Address
Egress Only — No Exterior Hardware		
Pannex Exit Device System Series 1200	This is a series of locks that can interface with an access control system. However, the lock listed here is an exit-only device. Like the Adams Rite lock, it provides for a one-point locking system that interlocks the door to the doorframe.	DOOR CONTROLS INTERNATIONAL 2362 E BISHOP CIRCLE DEXTER MI 48130 (734) 426-0400
P*E*D*S Panic Exit Deadlock System 8100 to 8400 series	This lock is for a solid door and meets UL standards for use on fire-rated doors. It can be a one-, two-, three-, or four-point deadbolt locking system based on the security requirements.	SECURITECH GROUP INC 54-45 44TH STREET MASPETH NY 11378 (718) 392-9000

Appendix E

Approved Impact Traffic Doors

Impact traffic doors that are manufactured in accordance with Facilities' *Standard Detail Library* drawings are all approved. The following doors are available in a matrix of sizes for doorway heights of 7 to 8 feet and doorway widths of 4 to 7 feet. They are acceptable alternatives to the solid-wood core with steel shell doors. The model numbers designate doors complete with all accessories that meet Postal Service operational and security requirements:

Manufacturer	Approved Doors	Telephone Numbers
Chase-Durus	Series 200 doors	(800) 547-6856
Frommelt	Series 54800MPO	(800) 553-4834
RubbAir	Series Steel-light	(800) 225-5076
W. B. McGuire	#202-036 Model 2450	(518) 828-7652
Jamison Door Co.	Series 92/2000	(800) 532-3667
SuperSeal MFG. LTD*	Model 4500APO	(716) 845-5353
Econo Max	Proline Model 600-SEC	—

* *To be used as a replacement door in repair and alteration projects. Not for new construction.*

Note: This is not an all-inclusive list of approved doors. Please check with the Inspection Service or Headquarters Facilities for the latest approved series or models.

Appendix F

Acronyms and Abbreviations

ADA	Americans With Disabilities Act
A/E	architect/engineer
AFF	above the finished floor
AMC	air mail center
amp	ampere
ANSI	American National Standards Institute
AQ	alternate quarters
ASM	<i>Administrative Support Manual</i>
ASO	Administrative Services Office
ASTM	American Society for Testing and Materials
BHMA	Builders Hardware Manufacturers Association
BMEU	business mail entry unit
CCTV	closed-circuit television
CFR	<i>Code of Federal Regulations</i>
CIO	criminal investigative office
CIS	criminal investigative system
COR	contracting officer's representative
CSBCS	carrier sequence barcode sorter
dB	decibel
DBCS	delivery barcode sorter
DOJ	Department of Justice
DOT	Department of Transportation
EAS	electronic article surveillance
EIFS	exterior insulation and finish system
fc	foot-candle
FPC	Facility Planning Concept

FSO	facilities service office
GSA	General Services Administration
GUI	graphical user interface
HCR	highway contract route
HVAC	heating, ventilation, and air-conditioning
ID	identification
IDF	intermediate distribution frame
IDS	intrusion detection system
INC	inspector in charge
I/O	information outlet
IRT	integrated retail terminal
LAB	label
LAN	local area network
LOG	lookout gallery
MFO	major facilities office
mil	one one-thousandth of an inch
MSBD	Medium Standard Building Design
MVS	motor vehicle service
NFPA	National Fire Protection Association
NIJ	National Institute of Justice
NRP	nonremovable pin
OC	on center
OCR	optical character reader
OSB	oriented strand board
OSL	operational space layout
P&D	processing and distribution
POS	point of sale
PSDS	Postal Source Data System
psf	pounds per square foot
PTZ	pan/tilt/zoom
PVC	polyvinyl chloride
RFID	radio frequency identification
RSD	Retail Standard Design
SDN	stamp depository network

SDO	stamp distribution office
S&G	Sargent and Greenleaf
SPBS	small parcel and bundle sorter
SSA	super small arms
SSBD	Small Standard Building Design
SSPC	self-service postal center
SSVA	self-service vending area
STC	sound transmissions class
TMS	Transportation Management System
UL	Underwriters Laboratory
U.S.C.	<i>United States Code</i>
Vac	volts alternating current
VHS	video home system
VMF	vehicle maintenance facility
W	watt
WAN	wide area network

Post Office Robbery



prepared by
United States
Postal Inspection Service

Post Office Robbery

The likelihood of you, a postal employee, becoming a robbery victim is small, but unfortunately it can happen.

This pamphlet provides steps to take that will reduce your chance of being robbed and increase your personal safety in the event a robbery occurs.

IT IS IMPORTANT THAT ALL POSTAL EMPLOYEES KNOW WHAT ACTIONS TO TAKE **BEFORE, DURING** AND **AFTER** A ROBBERY!!!

A. PREVENTIVE MEASURES

1. *Be alert for indications of trouble:*
 - (a) on your way to work
 - (b) in the parking area
 - (c) around entry and exit doors
 - (d) in the post office lobby
2. Report suspicious circumstances and individuals to the police and Postal Inspectors. This includes anyone who appears to be loitering on postal premises. Get vehicle license number and description, if possible.
3. Do not retain excess cash in the office or carry large amounts of personal cash.
4. Never leave cash, blank money orders or stamp stock within reach of a customer or in plain view.
5. Lock your cash drawer when you are away from it.
6. Be aware of what's happening around you-in the lobby or at the next window.
7. Keep all exterior doors which allow access to work areas closed and locked when not in use.

8. Be identification-conscious. Using caution, question all unknown personnel entering mail handling areas.
9. If you receive a call from the police to report to your office after hours, telephone back and verify the call. Do not enter the post office until the police or Postal Inspectors arrive.
10. Do not discuss money or valuable mail on hand in the post office, transportation methods, or details of your security system with persons outside your office other than authorized postal employees. Confine such information to a "need to know."
11. Where possible, keep windows facing street unobstructed so the counter-line can be viewed from outside.

IF A ROBBERY DOES OCCUR **DO NOT:**

* **PANIC!!** * **YELL FOR HELP!!**

* **RESIST THE ROBBER!!** * **RUN AWAY!!**

B. ACTIONS DURING ROBBERY


1. TAKE NO ACTION THAT WOULD JEOPARDIZE YOUR PERSONAL SAFETY.
2. If the robber displays a firearm, consider it loaded and assume he/she is willing to use it.
3. Don't panic; "play it cool,"; and do exactly as you are told.
4. If possible to do so without drawing attention to your action, activate your robbery alarm and/or camera.
5. If the robber has written a note, place it aside and attempt to retain it as evidence.

6. Do not be obvious, but carefully observe the robber and his/her actions. Get a clear picture of the person in your mind---his/her features, voice, clothes, manner and direction of escape.
7. If you can do so safely, get a description and license number of vehicle used.

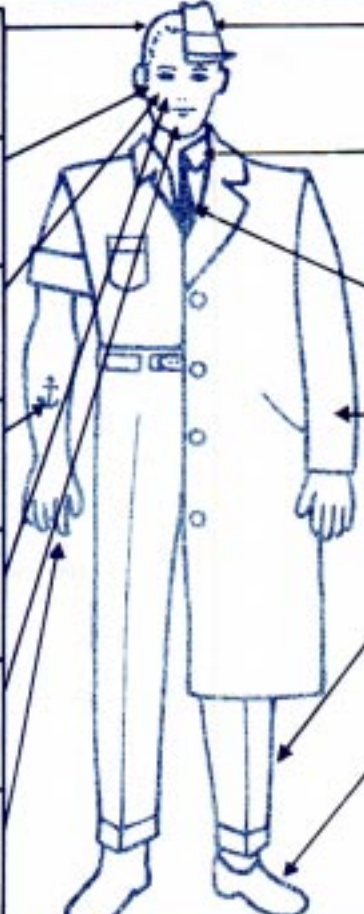
C. ACTION AFTER ROBBERY

1. *Telephone police immediately.* If possible, provide a detailed description of the robber, type of weapon and vehicle used, direction of get-away and exact time of the robber's departure. Then immediately notify Postal Inspectors.
2. Ask witnesses and all employees to remain until police and Inspectors arrive. If witnesses must leave, get their names and addresses.
3. *Protect the scene of the crime.* Lock doors, if necessary. Don't touch anything in the area of the crime and keep others away.
4. Immediately write down all information including a description of the robber.
5. Do not "compare notes" with others until you have given your information to Postal Inspectors or police.

REMEMBER: **BE ALERT, BE OBSERVANT,**
and above all, **BE CAREFUL!**

Emergency Numbers	
POLICE	
INSPECTOR	
SUPERVISOR	

Description

Sex	Race	Age	Height	Weight	Weapon Type		
<div> <div>Hair</div> <div>Eyes</div> <div>Glasses</div> <div>Tattoos</div> <div>Complexion</div> <div>Beard/Moustache</div> <div>Birthmarks</div> </div>			<div>  </div>			<div>Hat (Color, type)</div>	
						<div>Shirt</div>	
						<div>Tie</div>	
						<div>Coat</div>	
						<div>Trousers</div>	
						<div>Shoes/Boots</div>	
Direction of Escape			Method: (Foot/Vehicle, Year, Make, Model, Color, Lic. No.)		Speech (Accent)		

WEAPONS AND EQUIPMENT (note whether automatic, revolver, rifle, shotgun, knife, etc. were used by the robber)

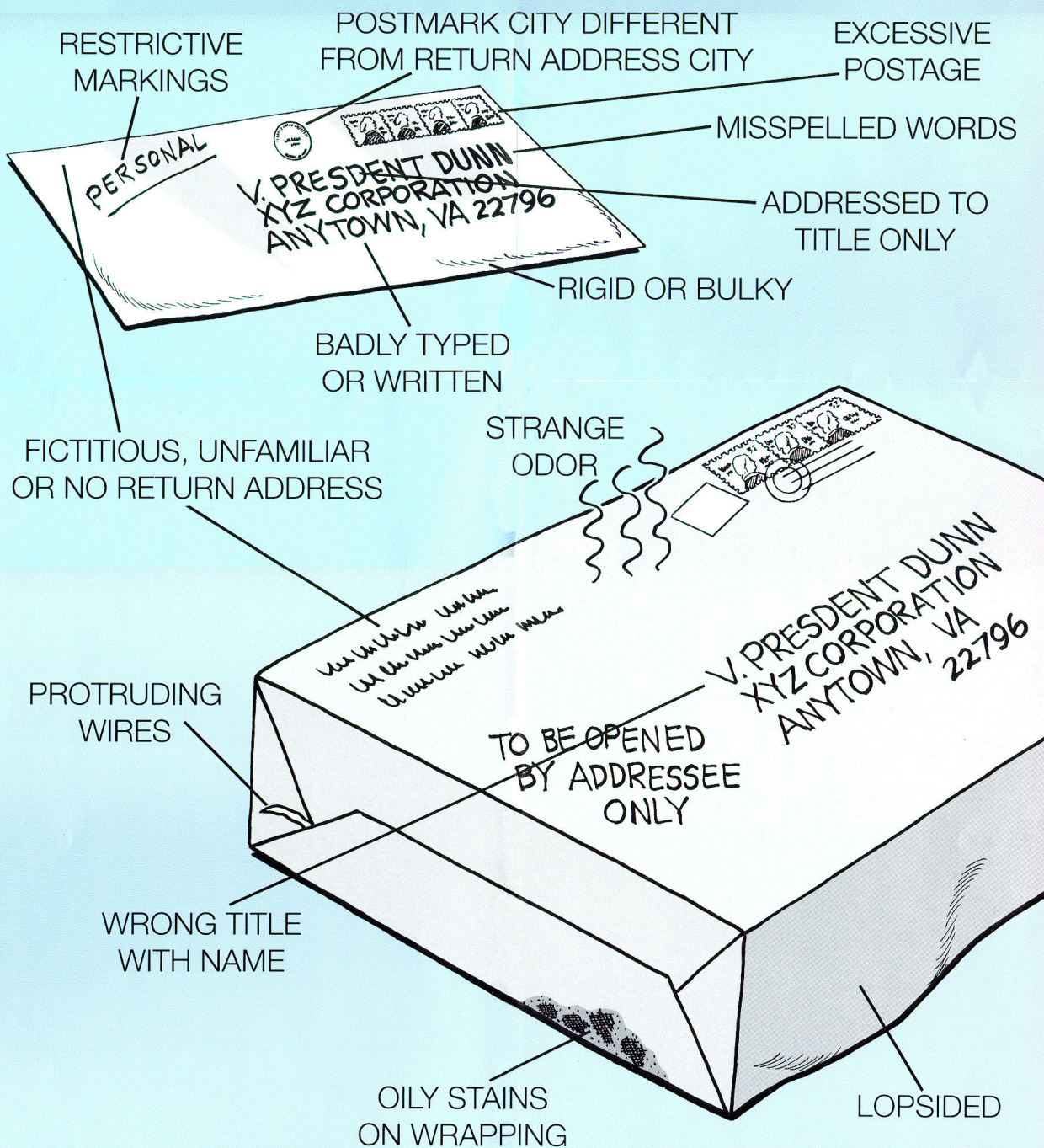


REMARKS (note here anything that the offender may have said, his/her accent, whether he/she used any names, his/her movements, etc.)

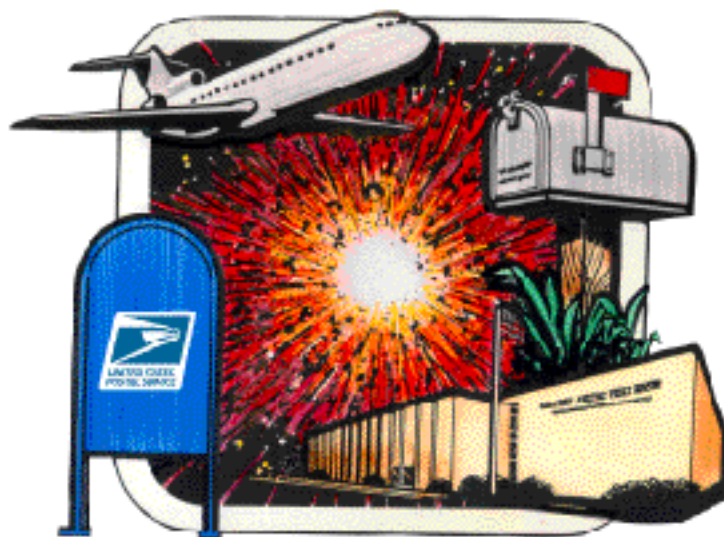
LETTER AND PACKAGE BOMB INDICATORS

If you are suspicious of a mailing and are unable to verify the contents with the addressee or sender:

- DO NOT OPEN
- TREAT IT AS SUSPECT
- ISOLATE IT
- CALL YOUR POSTAL INSPECTOR
- CALL THE POLICE



BOMBS by MAIL

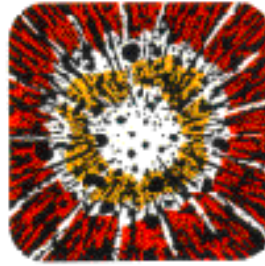


UNITED STATES POSTAL INSPECTION SERVICE

Notice 71, February 1998








BOMBS by MAIL










The likelihood of your ever receiving a bomb in the mail is remote. Unfortunately, however, a small number of explosive devices have been mailed over the years resulting in death, injury, and destruction of property.

What can you do to help prevent a mail bomb disaster? First, consider whether you or your organization could be a possible target. Some motives for mail bombs include revenge, extortion, love triangles, terrorism, and business disputes.

Keep in mind that a bomb can be enclosed in either a package or an envelope, and its outward appearance is limited only by the imagination of the bomber. However, some unique characteristics of mail bombs may assist the identification of a suspect mailing. To apply these characteristics, it is important to know the type of mail your organization or your home receives.

-  Mail bombs may bear restricted endorsements such as "Personal" or "Private." These characteristics are important when the addressee does not usually receive personal mail at the office.
-  Addressee's name or title may be inaccurate.
-  Return address may be fictitious or not available.
-  Mail bombs may have distorted handwriting or the name and address may be prepared with homemade labels or cut-and-paste lettering.
-  Mail bombs may have protruding wires, aluminum foil, or oil stains and may emit a peculiar odor.

-  Cancellation or postmark may show a different location than the return address.
-  Mail bombs may have excessive postage.
-  Letter bombs may feel rigid, or appear uneven or lopsided.
-  Package bombs may be unprofessionally wrapped with several combinations of tape used to secure the package and may be endorsed "Fragile-Handle With Care" or "Rush-Do Not Delay."
-  Package bombs may have an irregular shape, soft spots, or bulges.
-  Package bombs may make a sloshing sound. Although placed devices may buzz or tick, mailed bombs generally do not.
-  Pressure or resistance may be noted when removing contents from an envelope or package.

IF YOU ARE SUSPICIOUS OF A MAILING AND ARE UNABLE TO VERIFY THE CONTENTS WITH THE ADDRESSEE OR SENDER:

1. DO NOT OPEN.
2. Isolate the mailing and evacuate the immediate area.
3. Do not put it in water or a confined space such as a desk drawer or filing cabinet.
4. If possible, open windows in the immediate area to assist in venting potential explosive gases.
5. If you have any reason to believe a letter or package is suspicious, do not take a chance or worry about possible embarrassment if the item turns out to be innocent—instead, contact your local police department and Postal Inspector for professional assistance.

Phone Numbers:

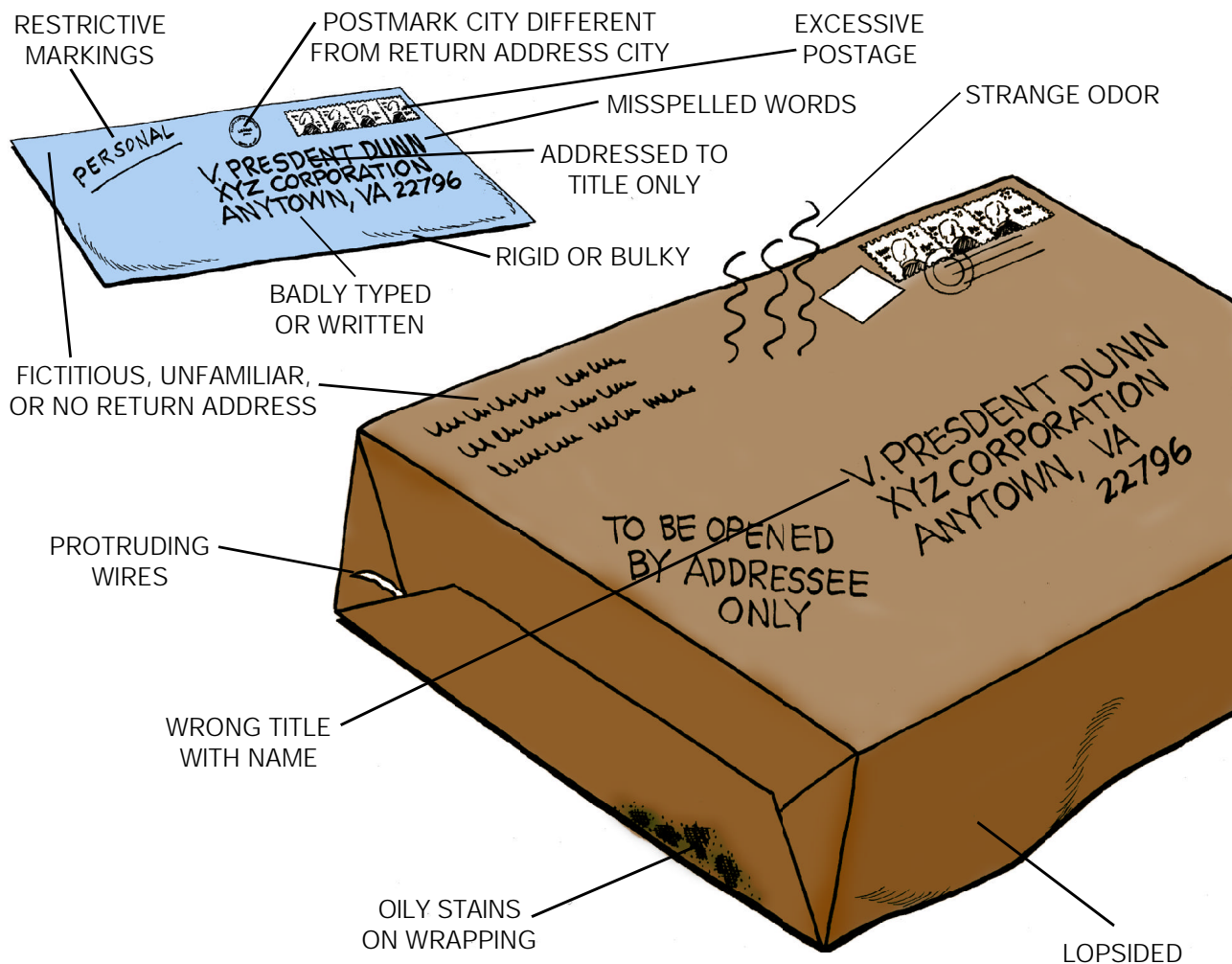
Police _____

Postal Inspector _____

LETTER PACKAGE BOMB INDICATORS

If you are suspicious of a mailing and are unable to verify the contents with the addressee or sender:

- DO NOT OPEN.
- TREAT IT AS SUSPECT.
- ISOLATE IT.
- CALL YOUR POSTAL INSPECTOR.
- CALL THE POLICE.





Fire Prevention and Control

Maintenance Handbook
MS-56

FOREWARD

This handbook explains, in general, fire prevention and control for postal facilities. It is divided into chapters that pertain to specific aspects of fire control and prevention and reflects the current theories of how fires start and propagate. New technologies for detecting and extinguishing fires are discussed.

This handbook may be used as a source for planning, equipment selection, training, and general fire information. Numerous references to both postal and non-postal documents are contained at the end of each chapter.

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CHAPTER 1

EMERGENCY PLANNING

110 GENERAL

The purpose of this chapter is to provide necessary information to maintenance and safety managers on fire prevention and protection in postal owned or postal leased buildings. It also provides general information for maintenance and safety managers regarding the organization, training and function of postal fire brigades as required by Employee And Labor Relations Manual par. 850, and the minimum life safety aspects required for each postal installation.

120 EMERGENCY PLANNING

121 Types of Emergencies

Emergency planning is necessary to recognize the potential effect of an emergency before it happens. The type of emergencies which may require action from postal fire brigades and necessitate advanced planning include:

- a. Fire and explosion.
- b. Floods.
- c. Hurricanes and tornadoes.
- d. Severe winter storms.
- e. Hazardous material spill and leak control.
- f. Earthquakes.
- g. Work place accidents.

122 Emergency Action Plan

An Emergency Action Plan (EAP) must be developed for every postal facility having more than ten employees on the roll. The EAP must include designated actions which management and employees take to ensure the safety of employees and the protection of the property. The installation head is responsible for ensuring the development of the EAP. More specific guidelines for content and format are found in Employee And Labor Relations Manual par. 850 (see Exhibit 1-1 for an Emergency Action Plan Checklist).

123 Fire Prevention Plan

A Fire Prevention Plan (FPP) must be developed for every postal facility larger than 10,000 square feet. The plan must include designated action management and employees must take to ensure safety of employees and the protection of property. Specific procedures should be developed for each part of the FPP. Items such as notifying employees of emergencies, evacuation procedures, and prefire planning information must be included in the plan. Plan development must not be limited to only the facility fire protection needs, but must satisfy the requirement of the local fire codes and standards, laws and local ordinances. The installation head must ensure the development of the FPP. More specific guidelines for content and format are found in Employee And Labor Relations Manual par. 850.

124 Emergency Action Plan And Fire Prevention Plan Training

The emergency action and fire prevention plans must be reviewed with each employee of the installation at the following times:

- a. When the plans are first developed.
- b. Whenever there is a change in the employee responsibility or designated action under the plan.
- c. Whenever the plans are revised, or annually, if there have been no revisions during the previous year.
- d. The immediate supervisor must review with all newly assigned employees those parts of the plan which the employees must know to protect themselves in an emergency.
- e. The plan must be posted at the work place and be available for employee review.

EXHIBIT 1-1

EMERGENCY ACTION PLAN EAP CHECKLIST

1. Is the EAP written and available if there are over ten (10) employees? YES _____ NO _____
2. Are graphic illustrations of exits, routes, and fire extinguishing equipment posted in prominent locations ?
Yes _____ NO _____
3. Are the names or job titles of persons who can be contacted for information posted? YES _____
NO _____
4. Do all employees know what procedures to follow in case of an evacuation? YES _____ NO _____
5. Do all employees know how to report a fire or other emergency? YES _____ NO _____
6. Is the procedure for reporting a fire or other emergency posted? YES _____ NO _____
7. If the facility has an alarm system, do employees know if it will summon the fire department ? Does it state
so near the alarm? Are other emergency telephone numbers posted? YES _____ NO _____
8. Are safe or refugee areas established? Do employees know to which area they are to report? YES _____
NO _____
9. Is there an adequate number of employees assigned to the various duties of the fire brigade in order to ensure
the safe, orderly, and complete evacuation of the building? YES _____ NO _____
10. Has the fire brigade been trained in how to respond to emergencies other than fire, such as bomb threats,
power outages, explosions or natural disasters? YES _____ NO _____
11. Are procedures for managing various types of emergencies outlined? YES _____ NO _____
12. Have procedures for employees who will act as floor wardens or handicap "buddies" been established ?
YES _____ NO _____
13. Has there been an emergency preplanning meeting? YES _____ NO _____
14. Has the local fire department been invited to become familiar with the facility layout? YES _____
NO _____
15. Are different exit routes used by employees during drills? YES _____ NO _____
16. Have contingency plans been established for emergencies other than fire, such as hazardous material released?
Power outages, floods, bomb scares, explosions, etc.? YES _____ NO _____
17. Are exit drills monitored by observers for efficiency? YES _____ NO _____
18. Are post-exit drills conducted to discuss irregularities and problems? YES _____ NO _____
19. Is follow-up monitoring conducted to ensure that corrective actions have been taken? YES _____
NO _____
20. Are reviews conducted when the plan changes? YES _____ NO _____ With new employees YES _____
NO _____

125 Employee Alarm Systems (Evacuation)

Every postal owned or postal leased facility must have an established general employee alarm system to provide the warning necessary to start emergency action. The system must comply with Occupational Safety And Health Administration (OSHA) standard 1910.165., which includes:

NOTE

If questions arise over OSHA standards, contact the Human Resources Analyst-Safety manager at the area office.

- a. A warning which provides adequate reaction time for employees to evacuate the danger area or work place.
- b. Signals and alarms that can be perceived (seen or heard) above ambient noise or light levels by all employees in the affected areas of the work place.
- c. The procedures must include evacuation for all employees, including handicapped.
- d. A distinctive and recognizable signal to evacuate the work area or to perform designated actions under the EAP. Tactile devices must be used to alert employees who are unable to recognize the audible or visual signals.
- e. Procedures for informing each employee of the means of reporting emergencies, such as manual pull boxes, public address systems, radios, or telephones.
- f. Where a communication system also serves as the employee alarm system, all emergency messages must have priority over all nonemergency messages.
- g. Emergency telephone numbers must be conspicuously posted near all telephones, on employee bulletin boards, and at other locations where telephones serve as a means of reporting emergencies.
- h. Direct voice communication, bells, gongs, air horns, etc., may sound the alarm in installations with fewer than ten employees, provided employees understand the purpose.
- i. If the general employee alarm system is also used to alert members of the fire brigade, or for other purposes, a distinctive signal for each purpose must be used.

126 Prefire Planning

126.1 Purpose

The purpose of prefire planning is to :

- a. Identify fire problems in the facility
- b. Develop appropriate emergency medical and fire prevention plans.
- c. Prepare fire brigade members to effectively control fires.

126.2 Considerations

Emergency planning for fire protection begins with a survey of the facility to gather information about safety, fire control, and property conservation. Form 1748, Safety And Health Inspection Checklist, serves as a reminder of what information should be collected and provides a systematic method to record the collected information. Items to consider during prefire planning include:

- a. Building security, entry, egress, and accessibility.
- b. Heating , Ventilating, and Air Conditioning (HVAC) equipment.
- c. Water supplies.
- d. Fire equipment.
- e. Municipal resources.
- f. Exposures to adjacent property.
- g. Explosion hazards.
- h. Storage areas.
- i. Critical operations.
- j. Utilities.
- k. Safety.
- l. Medical resources.
- m. Any special rescue problems.

NOTE

The local fire department can assist in the development of a prefire plan for your particular installation.

127 Cooperation and Coordination with Other Agencies

127.1 Local Fire Department

In developing EAPs and FPPs, local fire departments must be familiar with the facility's general layout, its processes or operations, and the types and locations of hazardous materials and any other special hazards. Regular pre-emergency planning sessions with the local fire department will provide current information on any changes, and allow for more effective coordination. The installation head is also encouraged to seek assistance from local fire officials, and permit them to conduct periodic fire inspections.

127.2 Other Local Agencies

Liaison with law enforcement agencies must be established in advance of emergencies to develop plans to control traffic and the public. Emergency medical services available at the postal installation will determine the need for interaction with local emergency medical services. Postal installations should keep an up-to-date list of all cooperating agencies conspicuously posted in the maintenance area (see list for example).

EMERGENCY PHONE NUMBERS

FIRE	555-1111
POLICE	555-1112
AMBULANCE	555-1113
DOCTOR	555-1114
CIVIL DEFENSE	555-1115
WATER COMPANY	555-1116
ELECTRIC COMPANY	555-1117
ENVIRONMENTAL PROTECTION	
AGENCY	555-1118
SPILL RECOVERY COMPANY	555-1119
SECURITY SYSTEM COMPANY	555-1110
GAS COMPANY	555-1121
GUARD COMPANY	555-1122
HOSPITAL	555-1123
CHEMTREC	555-1124
HEALTH DEPARTMENT	555-1126
SPRINKLER CONTRACTOR	555-1127

EXHIBIT 1-2

REFERENCES AND STANDARDS

OSHA General Industry Standards

1910.165. Employee Alarm Systems

US Postal Service Documents

Employee and Labor Relation Manual Chapter 8

NOTE

If questions arise over OSHA standards, contact the Human Resources Analyst/Safety manager at your Area Office.

USPS documents and directives are requisitioned from area materiel distribution centers on Form 7380 MDC Supply Requisition.

CHAPTER 2

FIRE BRIGADES AND MEANS OF EGRESS

210 FIRE BRIGADES

211 Organization

All postal installations having 10,000 square feet or more must maintain, on each work tour, an organized and trained fire brigade. Fire brigades may be maintained in smaller facilities when warranted by the type of operations conducted and the availability of municipal fire departments. The number of members, scope of responsibility, physical characteristics of the building and specific needs will determine how the fire brigade is organized into functional teams.

212 Objectives

The objectives of fire brigades are:

- a. Respond quickly to a fire or other emergency in order to contain, control, or extinguish fires until the arrival of the local fire department or other emergency assistance.
- b. Control the orderly evacuation of the building.

213 Incipient Stage Fires

Postal fire brigades are not expected to fight fires beyond the incipient stage. An incipient stage fire is in its initial stage and can be controlled, contained, or extinguished by portable extinguishers, class II standpipe and hose systems, or other small hose systems, without the use of personal protective clothing or equipment, and within the means and capability of the fire brigade.

214 Duties Of The Fire Brigade

The duties of the fire brigade may include but are not limited to:

- a. Stopping conveyor belts
- b. Closing doors to rooms and dump hole covers.
- c. Directing the fire department to the location of the fire (or other emergency).
- d. Evacuating injured and handicapped personnel and controlling the evacuation of the building occupants.
- e. Inspecting the fire site with the fire department to determine that the fire is completely extinguished and that there is no possibility of rekindling.
- f. Ensuring vans and trucks are moved from loading docks.
- g. Shutting down critical operations or equipment as directed by the fire department.
- h. Maintaining security to prevent re-entry into the building until properly notified by the fire department, and assisting the fire department or police in maintaining crowd control.
- i. Operating portable fire extinguishers and Class II standpipe hose systems.
- j. Locking out elevators.

215 Membership

215.1 General

Building maintenance and security personnel make up the nucleus of the fire brigade. Additional personnel may be assigned to ensure adequate coverage on all work tours. The fire brigade is composed of a fire brigade leader, an assistant leader, and brigade members.

215.2 Fire Brigade Leader

The installation head appoints the manager responsible for building maintenance or someone equally familiar with the building operations to be fire brigade leader. The fire brigade leader is given the authority to take full charge in emergencies and is responsible for fire brigade activities, including training. The fire brigade leader sets up the fire brigade, maintains the roster of members and their training, develops plans of action to cope with anticipated fires (the Fire Brigade Plan), and other emergencies at the installation. Further, the leader selects brigade members to protect all parts of the building on all work tours. The leader conducts critiques after each drill or emergency. The leader must establish a procedure to provide quarterly review of the program to ensure operational efficiency.

215.3 Assistant Fire Brigade Leader

The assistant fire brigade leader serves as the leader at the fire or other emergency until the fire brigade leader arrives or, in his absence, assumes command.

215.4 Brigade Member

Fire brigade members attend meetings, drills, and training sessions relative to fire control, prevention, and safety. They perform functions relative to fire protection, fire safety, fire extinguishment, and other emergencies.

216 Physical Requirements

The fire brigade leader must ensure that all members of the fire brigade are physically capable of performing the task assigned to the team during training or actual emergencies. Employees with known heart disease, epilepsy, or chronic obstructive pulmonary diseases must not be permitted to participate in any fire brigade activity unless they present a medical certificate of fitness from their personal physician stating that they are physically capable of performing such duties. Employees with known physical handicaps are permitted to be fire brigade members; however, their job assignments are governed by their ability to perform certain tasks.

217 Training

All fire brigade members must complete an initial basic level of training, both upon coming a member of the brigade and before performing any activity as a member of the brigade. Thereafter, members must be provided with refresher training every quarter. Fire brigade leaders and training instructors must be provided with training and education more comprehensive than that provided to the general brigade membership.

218 Fire Brigade Plan Reviews

A review to determine that various objectives of a sound Fire Brigade Plan are met should be conducted at least once a year in each office having a brigade. It is recommended that the Fire Brigade Plan be reviewed by the maintenance manager, the director of mail processing, and the safety manager at least once each quarter. Other station and branch or associate office plans must be reviewed by the local safety office as part of the annual or semi-annual safety inspections. Deficiencies must be corrected immediately. Exhibit 2-1, the Fire Brigade Plan Check List, will help in evaluating various fire brigade plans.

EXHIBIT 2-1

FIRE BRIGADE PLAN CHECK LIST

1. Are the trained fire brigades maintained on each work tour in facilities with more than 10,000 square feet ?
YES _____ NO _____
2. Is there a written organizational policy statement? YES _____ NO _____
3. Are there enough brigade members assigned for each tour? Are all positions filled? YES _____
NO _____
4. Do all brigade members understand their duties ? YES _____ NO _____
5. Have all brigade members been provided with hands-on training ? YES _____ NO _____
6. Are quarterly refresher programs given to members ? YES _____ NO _____
7. Are all fire brigade members and employees instructed that they should not fight fires which go beyond the incipient stage ? YES _____ NO _____
8. Have brigade members been instructed on any special hazards ? YES _____ NO _____
9. Has the local fire department been contacted for equipment coordination purposes ? YES _____
NO _____
10. Is all fire control equipment in good working condition? YES _____ NO _____
11. Has all fire control equipment been tested or inspected as required? YES _____ NO _____
12. Do all employees in each facility know what they are to do in case of fire? YES _____ NO _____
13. Do all employees in each facility know how to properly notify the fire department? YES _____
NO _____
14. Do all employees know where to report after evacuating the building for employee head counts?
YES _____ NO _____
15. Have all employees in each facility been given at least general training in the following:
 - a. Evacuation procedures ? YES _____ NO _____
 - b. Preferred and alternate means of egress? YES _____ NO _____
 - c. Good housekeeping? YES _____ NO _____
 - d. Fire prevention? YES _____ NO _____
 - e. Smoking regulations? YES _____ NO _____
 - f. Other relevant items for that specific office? YES _____ NO _____

220 MEANS OF EGRESS

221 General

This section establishes minimum requirements for the means of egress in postal installations. For more specific requirements, reference should be made to the current editions of the National Fire Protection Association (NFPA) Life Safety Code or to particular NFPA standards as appropriate (see Exhibit 2-2).

EXHIBIT 2-2

REFERENCES AND STANDARDS

National Fire Protection Association Codes And Standards

NFPA-101. Life Safety Code

OSHA General Industry Standards

1910.35. Definitions

1910.36. General Requirements

1910.37. Means Of Egress, General

1910.156. Fire Brigades

1910.165. Employee Alarm System

US Postal Service Documents

Employee and Labor Relations Manual Chapter 8

NOTE

For questions concerning OSHA standards, contact the Human Resource Analyst/Safety manager at your Area Office.

USPS documents and directives are requisitioned from area materiel distribution centers on form 7380 MDC Supply Requisition.

NFPA publications are available from :

National Fire Protection Association
Batterymarch Park
Quincy, MA 02269-9101

222 Definition

A means of egress is a continuous and unobstructed way of exit travel from any point in a building to a public way. It consists of three separate and distinct parts: the way of exit access, the exit, and the way of exit discharge. A means of egress comprises the vertical and horizontal ways of travel and includes intervening room spaces, doorways, hallways, corridors, passageways, balconies, ramps, stairs, enclosures, lobbies, escalators, horizontal exits, courts, and yards. The following are specific definitions:

- a. Exit access is that portion of a means of egress which leads to an entrance to an exit (see Figure 2-2).
- b. Exit is that portion of a means of egress which is separated from all other spaces of the building, structure construction, or equipment to provide a protected way of travel to the exit discharge (see Figure 2-2).
- c. Exit discharge is that portion of a means of egress between the termination of an exit and a public way (see Figure 2-2).

223 Head Room

Means of egress must be designed and maintained so as to provide adequate headroom. In no case may the ceiling height be less than 7 feet 6 inches or any projections from the ceiling be less than 6 feet 8 inches from the floor.

224 Doors

Every door and every principal entrance that serves as an exit must be designed and constructed so that the way of exit is obvious and direct. Any door in a means of egress must be side-hinged, swing in the direction of exit travel. No exiting doors (a door leading inside or out) may be less than 28 inches wide nor may a single door in a doorway exceed 48 inches in width. The force required to fully open any door in the means of egress must not exceed 50 pounds applied to the latch stile.

225 Hardware For Doors In Means Of Egress

When the building is occupied, exit doors must be arranged so they can be readily opened from the side where egress is made. A latch or other fastening device on a door must be provided with a panic bar, knob, handle, or other simple type of releasing device, so that even in darkness the method of operation is obvious. For special locking arrangements, refer to NFPA-101, Life Safety Code.

226 Arrangement Of Means Of Egress

Exits must be located and exit access must be arranged so that exits are accessible at all times. Means of egress must be arranged so that there are no dead end pockets, hallways, corridors, passageways, or courts whose depth exceeds 50 feet. Access to an exit must not be through storerooms, restrooms, closets, or similar spaces or rooms that may be locked.

227 Travel Distances To Exits

The maximum allowable travel distance for office areas in new or existing facilities that are sprinkled (equipped with a sprinkler system) is 300 feet, and 200 feet in unsprinkled facilities. The maximum allowable travel distance to an exit in a workroom must not exceed 150 feet in a sprinkled buildings and 100 feet in unsprinkled buildings. For exceptions to these travel distances, or for particular problems, refer to NFPA-101, Life Safety Code.

228 Illumination Of Means Of Egress

The means of egress must be illuminated in every postal owned or postal leased building. This includes all designated stairs, aisles, corridors, ramps, and passageways leading to an exit. Illumination must be continuous and provided along the natural path of egress, including angles and intersections of corridors and passageways, stairs, landings of stairways, and designated exit doors (see Figure 2-3). Illumination must be at least 1 footcandle measured at the floor. The failure of any single lighting unit, such as a burnt out bulb, must not leave any area in darkness. Self-luminous (i.e., phosphorescent) signs are not approved for use as the primary light source for exit signs in postal owned or postal leased buildings.

229 Exit Marking

Exits must be marked with an approved sign visible from any direction. Sign placement must be such that no point in the exit access is more than 100 feet from the nearest visible sign. Every "EXIT" sign, "DIRECTIONAL" (arrow) exit sign, or "NOT AN EXIT" sign must be plainly legible with letters not less than 6 inches high and not less than 3/4 inches wide (see Figure 2-4). The lettering may be either red or green with a white matte background, depending on local building codes, but must contrast with decorations, interior finish, or other signs. Every exit sign must be suitably illuminated by a reliable and continuous light source. No sign, curtain, drapery, poster, etc., that obscures or confuses the location of the exit, may be placed at or near any designated exit.

CHAPTER 3

FLAMMABLE AND COMBUSTIBLE MATERIALS

310 GENERAL

311 Scope

This chapter identifies and consolidates selected parts of OSHA standards and NFPA regulations pertaining to the storage, handling, and dispensing of flammable and combustible materials, service station and spray application operation. For more detailed information or to resolve specific problems regarding flammable and combustible materials refer to NFPA and OSHA standards listed in Exhibit 3-2.

This chapter does not apply to ordinary combustibles such as wood and paper, but does apply to materials such as propane, gasoline, and paint dusts.

312 Purpose

This chapter provides USPS personnel with basic information as to storage, handling and dispensing of flammable and combustible materials in all postal owned or postal leased buildings. Exhibit 3-1, "Check list for Flammable Liquids Storage Room Safety," is a brief summary of the requirements for safe storage and handling of flammable liquids.

313 Mailability and Transportation

This chapter does not apply to the transportation and mailability of flammable and combustible materials. These requirements are contained in appropriate U.S. Department of Transportation Regulations (49 CFR); in NFPA-385, Recommended Regulatory Standard for Tank Vehicles for Flammable and Combustible Liquids; USPS HBK EL-812, Hazardous Materials, and Publication 52, Acceptance of Hazardous, Restricted or Perishable Matter.

EXHIBIT 3-1

CHECK LIST FOR FLAMMABLE LIQUID STORAGE ROOM SAFETY

(Refer to NFPA 30 Flammable And Combustible Liquids Code for details)

1. Maximum capacity of storage room not exceeded.
2. Aisles clear (main aisle at least 36 inches wide).
3. Ventilation OK (if forced air, check blowers, motors, switches).
4. Explosion proof switches intact, guards on all fixtures inside of storage rooms.
5. Fusible links intact on self-closing doors.
6. Self-closing doors operational, still intact.
7. Grounding integrity to earth ground.
8. Provision for bonding to containers being filled.
9. Approved faucet or pump on each drum being drained
10. Approved drip can under each drum faucet (check liquid level in can, empty as necessary).
11. Approved filler/vent on each drum being filled.
12. Sprinkler system operational.
13. Floor clean of drips, spills , trash.
14. Required cautionary signs in place and legible.
15. Type I safety cans for receiving liquids from drums available and in use throughout the plant.
16. Flexible hose attachments for easy pouring from Type I containers.
17. Fill vent and funnel to provide venting of waste disposal drums and safe, convenient emptying of small containers into the drums.

314 Oil Burning Equipment

Storage, handling, or use of fuel oil tanks and containers connected with oil burning equipment are covered separately in American Society of Mechanical Engineers (ASME) and NFPA standards.

315 Material Safety Data Sheets

Material Safety Data Sheets (MSDS) (also called OSHA Form 20) serve as a reference for clarifying hazardous materials and determining necessary fire protection measures. MSDS are usually supplied by the manufacturer or supplier, and should be kept on file for easy reference.

320 DEFINITIONS

321 Approved (Labeled or Listed)

Said of a code, standard, device, or item of equipment that is sanctioned, endorsed, accredited, certified, listed, labeled, or accepted by a duly constituted and nationally recognized authority or agency as satisfactory for use in a specified manner (such as Underwriters Laboratories and Factory Mutual approved).

322 Boiling Point

The point at which liquid at a pressure of 14.7 pounds per square inch absolute (PSIA) boils. The boiling point of the liquid is the temperature of the liquid at which its vapor pressure equals the atmospheric pressure. The lower the boiling point of the material the greater the vapor pressure and, consequently, the greater the fire potential.

323 Flash Point

The minimum temperature at which liquid gives off vapor in sufficient concentration to form an ignitable mixture with air near the surface of the liquid (as specified by appropriate test procedure).

324 Combustible Liquids

324.1 Kinds of Combustible Liquids

Combustible liquids having a flash point at or above 100° F are subdivided as follows:

- a. Class II liquids include those having a flash point at or above 100°F and below 140°F. Examples of Class II liquids are #2 fuel, kerosene, and acetic acid.
- b. Class IIIA liquids include those having a flash point at or above 140°F and below 200°F. An example of a Class III liquid is #6 fuel oil.
- c. Class IIIB liquids include those having a flash point at or above 200°F. Examples of Class IIIB liquids are lubricating oils, paraffin, and tar.

324.2 Mixing Materials

Requirements for the safe storage and use of the great variety of flammable and combustible materials commonly available depend on their fire characteristics, particularly the flash point. It should be noted that the classification of a material can be changed by contamination. For example, filling a Class III liquid into a tank previously containing a Class II liquid can alter the classification. Care must be exercised in such cases to apply the requirements appropriate to the actual classification.

324.3 Classification

The volatility of materials is increased by heating. If Class II or Class III materials are heated above their flash point, ventilation may have to be increased and/or electrical classification changed in the affected area.

325 Container

Any vessel of 60 U.S. gallons or less capacity used for transporting or storing liquids.

326 Fire Area

An area of a building separated from the remainder of the building by construction having a fire resistance of at least 1 hour, the communicating openings of which are properly protected by an assembly having a fire resistance rating of at least 1 hour. Such construction must completely separate the area from all other building portions with fire resistance construction from the floor through the roof completely enclosing the area.

327 Flammable Liquid

327.1 Class I Liquid

A Class I liquid is a liquid having a flash point below 100°F and a vapor pressure not exceeding 40 psia at 100°F.

327.2 Other Liquids

Other flammable liquids are subdivided as follows:

- a. Class IA includes those having a flash point below 73°F and a boiling point below 100°F. Examples of Class IA liquids are ethyl ether and propane (under pressure).
- b. Class IB includes those having a flash point below 73°F and a boiling point at or above 100°F. Examples of Class IB liquids are carbon disulfide, ethanol, and gasoline.
- c. Class IC includes those having a flash point at or above 73°F and a boiling point below 100°F. Examples of Class IC liquids are VMP naphtha, styrene monomers, and turpentine.

328 Safety Can

An approved container, of not more than five U.S. gallons capacity, that has a spring closing lid and a spout cover and is designed to safely relieve internal pressure when subjected to fire.

329 Service Station

An automotive service station where motor fuels are stored and dispensed from fixed equipment into the fuel tanks of motor vehicles. Service stations include any facility available for the service of tires, batteries, accessories, and automotive maintenance work.

330 INSIDE STORAGE

331 General

This section applies to the incidental storage of flammable and combustible materials in postal owned or postal leased buildings. Lubricating oil, for example, is stored internally.

332 Containers and Uses

Flammable and combustible materials must be stored in approved tanks or containers. If the material is used outside of an inside storage room, or a storage cabinet in a building, or in any one fire area of a building, the quantity must not exceed the following:

- a. 25 gallons of Class IA materials in approved containers.
- b. 120 gallons of Class IB, IC, II, or III liquids in containers.
- c. 660 gallons of Class IB, IC, II, or III liquids in a single portable tank.

333 Separation and Protection

Areas where flammable and combustible materials are transferred from one tank or container to another must be separated from other operations or processes in the building by either adequate distance or by construction having adequate fire resistance. Drainage or containment must be provided to control spills. Do not drain materials into the sewer system. Adequate natural or mechanical ventilation must be provided.

334 Storage Cabinets

334.1 Location

Not more than 120 gallons of Class I, Class II, and Class IIIA materials may be stored in an approved storage cabinet in any postal owned or postal leased building. Of this total, not more than 60 gallons may be Class I and Class II materials, and not more than three such storage cabinets may be located in a single fire area. However, more than three cabinets may be located in the same fire area if the additional cabinet or group of not more than three cabinets is separated from the other cabinets by at least 100 feet (see Figures 3-1 and 3-2 for details).

334.2 Design and Construction of Storage Cabinets

334.21 Requirements

Storage cabinets must be designed and built so that internal temperature at the center, 1 inch from the top, does not exceed more than 325°F when subject to a 10-minute fire test. Storage cabinets for flammable and combustible materials must be labeled in conspicuous lettering, "FLAMMABLE - KEEP FIRE AWAY". Only approved storage cabinets may be used in postal owned and postal leased buildings (see Figure 3-3).

334.22 Venting

Some building codes mandate that the interior of the storage cabinet be vented to minimize the accumulation of vapors. Accordingly, some manufacturers provide cabinets with knockouts that allow venting. However, venting a storage cabinet may defeat the purpose of protecting any container of flammable or combustible liquid from involvement in a standard room fire for up to 10 minutes, the estimated time for a particular room or area to become involved in a fire. When storage cabinets are provided with vents by manufacturers, the vents must be plugged unless local codes mandate otherwise.

335 Storage Rooms

335.1 General Requirements

Inside storage rooms for flammable and combustible materials are permitted in postal owned and postal leased buildings only if the storage room meet selected fire resistance ratings given in NFPA standards (see Exhibit 3-2). Floors, and where floors join walls, must be liquid tight, except for trap drains. Where an automatic fire protection system is provided, the system must be designed and installed in accordance with the appropriate NFPA standard for the type of protection system installed (see Chapters 8 and 9).

335.2 Doors

Approved fire-rated doors are required for all openings in interior walls to adjacent rooms or areas of inside storage rooms. Interior walls with a fire resistance rating of 2 hours or less must be provided with approved fire doors having a 1 1/2 hour fire resistance rating. If interior walls are required to have greater than 2-hour fire resistance rating, the approved fire doors must be kept closed at all times.

335.3 Sills or Ramps

Non-combustible sills or ramps at least 4 inches in height, or otherwise designed to prevent the flow of liquids to adjoining areas, must be provided in inside storage rooms. An open grated trench across the width of the opening inside the room is a viable alternative, if it drains to a safe location, see Figure 3-4 for more details for drain trenches. If an open grated trench is used, it must be located on the inside of the room. The trench must also be designed to drain the collected spilled liquids to a safe location. This method may be desirable if there is an extensive need to transfer large quantities of flammable liquids in and out of the room with hand trucks.

335.4 Wood

Wood of at least 1-inch nominal thickness may be used for shelving, racks, dunnage, scuffboards, floor overlay, and similar applications. Although wood increases the potential for fire in the room, it does minimize the chances of mechanical damage and sparks.

335.5 Quantities

Storage in inside rooms must comply with Table 3-1.

335.6 Ventilation

Every inside storage room must have either a gravity or a mechanical exhaust ventilation system. Such a system must provide for a complete change of air within the room at least 6 hour times per hour. If a mechanical system is used to exhaust air, it must be controlled by a switch located outside of the room and near to the door. The ventilating equipment and any lighting fixtures must be operated by the same switch. If gravity ventilation is provided, the fresh air intake, as well as the exhaust outlet from the room, must be on the exterior of the building in which the room is located.

335.7 Control of Ignition Sources

Precautions must be taken to prevent the ignition of flammable vapors. Sources of ignition include, but are not limited to, open flames, smoking, cutting and welding, hot surfaces, frictional heat, static, electrical and mechanical sparks, spontaneous ignition, radiated heat, and chemical reactions.

335.8 Fire Control

At least one multipurpose dry chemical portable fire extinguisher with a rating of not less than 20-B must be located outside of, and not more than 10 feet from, each door opening that leads into an inside storage room.

NOTE

Numerals are used with the identifying letters for extinguishers labeled for class A and B fires. The "numeral" indicates the relative extinguishing effectiveness of the device.

340 OUTSIDE STORAGE

341 Consideration

If it is necessary for any postal installation to maintain large quantities of flammable and combustible materials, outside storage should be considered. Storage of materials outside of buildings must be in accordance with Table 3-2.

342 Mixed Storage

When two or more classes of materials are stored outside in a single pile, the maximum gallonage in that pile must be no greater than the maximum gallon allowance for the most hazardous material in the pile.

Table 3-1

FIRE ¹ PROTECTION PROVIDED	FIRE RESISTANCE	MAXIMUM SIZE	TOTAL ALLOWABLE QUANTITIES (GALS. / SQ. FT. / FLOOR AREA)
YES	2 HOURS	500 SQ. FT.	10
NO	2 HOURS	500 SQ. FT.	5
YES	1 HOURS	150 SQ. FT.	4
NO	1 HOURS	150 SQ. FT.	2

¹ Fire protection system shall be sprinkler, water spray, carbon dioxide, or other system

Table 3-2

CLASS	CONTAINER STORAGE- MAX. PER PILE		PORTABLE TANK STORAGE MAX. PER PILE GALLONS		DISTANCE BETWEEN PILES OR RACKS (FT.)	DISTANCE TO PROPERTY LINE THAT CAN BE BUILT UPON	DISTANCE TO STREET, ALLEY, OR PUBLIC WAY (FT.)
	GALLONS	HEIGHT (FT.)	GALLONS	HEIGHT (FT.)			
1A	1,100	10	2,200	7	5	50	10
1B	2,200	2	4,400	14	5	50	10
1C	4,400	12	8,800	14	5	50	10
II	8,800	12	17,600	14	5	25	5
III	22,000	18	44,000	14	5	10	5

343 Maximum Storage

A maximum of 1,100 gallons of flammable and combustible materials may be located adjacent to buildings.

344 Spill Containment

The outside storage area must be graded in a manner to divert spills away from buildings and other exposures or must be surrounded by a curb at least 6 inches high. When curbs are used, provisions must be made for draining accumulations of ground water, rain water, or liquid spills. Drains must end at a safe location and be accessible to operation in a fire.

345 Security

The storage area must be protected to prevent against tampering or trespassers and must be kept free of weeds, debris, and accumulation of combustible materials.

346 Fire Control

At least one multipurpose dry chemical portable fire extinguisher having a rating of not less than 12-B must be located not more than 10 feet away from the storage area. Open flames, smoking, and hot work are prohibited within 50 feet of the outside storage area, and appropriate signs must be installed.

350 HANDLING MATERIALS

351 Scope

The following general provisions apply to the dispensing of flammable and combustible materials in all postal owned and postal leased buildings.

352 Covered Containers

Class I and Class II materials must be kept in approved covered containers when not in use. Covered containers must be sealed by means of a lid or other device that prevents liquid or vapor from escaping at ordinary temperatures.

353 Spills and Leakage

If flammable and combustible materials are used or handled, means must be provided to properly absorb or contain spills or leaks, and to properly dispose of residual materials.

354 Dispensing

Precautions must be taken to prevent ignition of vapors during dispensing of flammable and combustible materials. Class I and Class II liquids must be drawn from, or transferred into, vessels, containers, or portable tanks only from the following:

- a. Original shipping container with a capacity of five gallons or less.
- b. From safety cans.
- c. Through a closed piping system or from a portable tank or container by means of an approved and listed device drawing through an opening in the container or tank
- d. By gravity through a listed self-closing valve or self-closing faucet.

NOTE

Transferring materials by means of pressurizing the container is prohibited.

355 Drip Cans

A safety drip can, or pan capable of containing at least one gallon, should be positioned below each drum faucet to catch spills or drips. Drip cans must be approved, lidless, and have a perforated fire baffle over the opening. All drip cans and pans must be emptied at least daily. At least 50 pounds of absorbent material must be available in each storage area.

356 Vents

It is recommended to install approved and listed, pressure/vacuum vents on all drums in which a self-closing valve or faucet has been installed.

357 Labeling

All containers and portable tanks containing flammable and combustible materials must be labeled as to their contents. Any safety can or other container of flammable liquids having a flash point at or below 80°F must be painted red with additional, clearly visible identification of the contents, conspicuously stenciled or painted in yellow.

358 Grounding and Bonding

Adequate precautions must be taken to prevent ignition of flammable vapors. Class I liquids must not be dispensed into containers unless the nozzle and container are electrically interconnected. If the metallic floor plate on which the container stands while filling is electrically connected to the fill stem, or if the fill stem is bonded to the container during filling operations by means of a bond wire, the provisions of this section will have been complied with. Bonding wire should be 10 gauge and stranded, clamps should be screw-type.

360 SERVICE STATIONS

361 General

The dispensing, storing and transferring of flammable and combustible materials is an inherent part of postal fleet operations. This section contains specific provisions for automotive service stations where fuel is pumped into postal vehicles. These are general provisions only. For more detailed information refer to NFPA and OSHA standards (see Exhibit 3-2).

362 Storage

Flammable and combustible materials must be stored in approved closed containers, underground tanks, specially enclosed tanks, or above ground tanks. No Class I liquids may be stored within any service station building except in closed containers of an aggregate capacity not to exceed 120 gallons.

363 Piping, Valves, and Fittings

Only approved and listed piping, valves, and fittings may be used.

364 Pumps

Only approved and listed pumps may be used. Pumps installed above ground, outside of buildings, must be located not less than 10 feet from any adjoining property or buildings. All pumps must be anchored and protected against physical damage by mounting on concrete islands and barricades. The pump must be provided with a control device allowing the pump to operate only when the nozzle is removed from its bracket and the device is manually activated. This control device must also stop the pump when the nozzle has been returned to the bracket. The dispensing hose must not exceed 50 feet in length, and must have a listed automatic closing type nozzle with or without a latch open device.

EXHIBIT 3-2

REFERENCES AND STANDARDS

National Fire Protection Association (NFPA) Standards

NFPA-30. Flammable And Combustible Liquids Code

NFPA-33. Spray Application Of Flammable And Combustible Materials

NFPA-80. Fire Doors And Windows

NFPA-251. Fire Test Of Building Construction And Materials

NFPA-321. Classification Of Flammable And Combustible Liquids

NFPA-325M. Fire Hazard Properties Of Flammable Liquids, Gases And Volatile Solids

NFPA-49. Hazardous Chemical Data

NFPA-91. Blower And Exhaust System

NFPA. Fire Protection Handbook, 15th Edition

OSHA General Industry Standard

1910.94. Ventilation

1910.106. Flammable And Combustible Liquids

1910.107. Spray Finishing Using Flammable And Combustible Materials

US Postal Service Documents

HBK EL-812. Hazardous Materials

Publication 52. Acceptance Of Hazardous, Restricted Or Perishable Matter

NOTE

For questions concerning OSHA standards, contact the Human Resource Analyst/ Safety Manager at your Area Office.

USPS documents and directives are requisitioned from area materiel distribution centers on Form 7380 MDC Supply Requisition.

NFPA publications are avail from:

National Fire Protection Association
Batterymarch park
Quincy, MA 02269-9101

365 Vapor-Recovery System

Existing pumps may be modified for vapor recovery; or whenever a pump is replaced, a vapor-recovery system must be provided. All newly constructed automotive service stations on postal owned or postal leased installations must be provided with an approved vapor-recovery system.

366 Emergency Power Shutoff

To shut off power in an emergency, clearly identified and easily accessible switch(es) or circuit breaker(s) must be provided at a remote location from dispensing pumps, but not more than 100 feet. A sign must be posted indicating where the shutoff switch is located. The shutoff switch must not be blocked by storage materials. Attendants and pump operators must know the location of the emergency shutoff switch.

367 Control of Ignition Sources

Smoking, or open flame, within 25 feet of all areas used for fueling, storage, or dispensing class I liquids is prohibited. Signs prohibiting smoking must be posted so as to be readily visible from various directions. The motors of all vehicles being fueled must be shut off.

368 Fire Control

Each service station must be provided with at least one approved fire extinguisher having a minimum classification of 12-B:C. Each extinguisher must be located within 50 feet of each pump, dispenser, fill pipe opening, storage, lubrication, or service room.

370 SPRAYING FLAMMABLE AND COMBUSTIBLE MATERIALS

371 General

This section refers to the spraying of flammable or combustible materials by compressed air, "airless", "hydraulic atomization", *stem*, *electrostatic methods*, or any other method in a continuous or intermittent process. This section covers only the minimum requirements to assure reasonable safety under normal conditions. This section does not apply to outdoor spraying of buildings, tanks, or other structures.

372 Spraying Area

The spraying area is any area of a building where dangerous quantities of flammable vapors or mist, combustible residues, dust, or deposits are present due to the spraying. The spraying area includes the interior of spray booths and rooms, the interior of ducts exhausting from the spraying area, and any area in the direct path of spraying.

373 Design and Construction

Spray booths must be designed and constructed in accordance with applicable OSHA and NFPA standards. At the minimum, spray booths must be substantially constructed of securely and rigidly supported steel, concrete, or masonry. Aluminum or other substantial, non combustible materials may be used for intermittent or low volume spraying. Spray booths must be designed to sweep air currents towards the exhaust outlet. The interior surfaces of spray booths must be smooth and continuous without edges and must be designed to prevent pocketing of residues and to ease cleaning. Floor surfaces must be non combustible material and easy to clean. If baffle plates are installed to promote an even airflow or to trap overspray, the plates must be of non combustible material, readily removable, and easy to clean. Baffle plates must not be located in the exhaust ducts.

374 Cleaning

All portions of spray booths must be easy to clean.

375 Sources of Ignition

All electrical equipment, open flame, and other sources of ignition must conform to the requirements found in applicable NFPA and OSHA standards.

376 Sprinkler Heads

Sprinklers protecting spraying areas must be cleaned and protected against overspray residue. Polyethylene or cellophane plastic bags having a thickness of 0.003 inches or thinner, or thin paper bags may be used to protect the sprinkler head. The bags must be replaced and heads cleaned frequently so that heavy deposits of residue do not accumulate.

377 Ventilation

Ventilation and exhaust systems must be in accordance with applicable NFPA standards. All spraying operations in postal owned and postal leased buildings must be provided with mechanical ventilation adequate to remove flammable vapors, mist, or powders to a safe location, and to confine and control combustible residues. Consult the OSHA standards in Exhibit 3-2 for additional requirements regarding velocity, airflow, makeup air, and the required number of air changes.

378 Operations and Maintenance

378.1 Spray Area

Spraying must not be conducted outside of predetermined spraying areas; however, operation of small portable spraying apparatus for spraying building interiors and similar uses is allowed.

378.2 Ventilation

Adequate ventilation must be provided at all times when conducting indoor spraying operations, particularly in small enclosures.

378.3 Open Fires

Spraying must not be conducted in the vicinity of open flames or other sources of ignition.

378.4 Containers

When they are not required to be open to replenish the supply of such material, cans or other containers of paint, thinners, or other protective coatings should be kept tightly closed at all times.

378.5 Rags

Because of the danger of spontaneous ignition, oily or paint-laden rags or waste must be stored in closed metal waste cans and disposed of at the end of each day's operation.

378.6 Residue

Paint residue powder can cause spontaneous combustion. Therefore the residue must be stored in closed metal cans, and all spraying areas must be kept as free as practical from the accumulation of deposits of combustible residues.

378.7 Tools

Only nonsparking tools may be used in the spraying area or for cleaning purposes.

378.8 Signs

"No Smoking" signs must be posted in all spraying areas.

378.9 Filters

Check and replace as necessary all filters.

CHAPTER 4

PORTABLE FIRE EXTINGUISHERS

410 GENERAL

411 Scope

This chapter applies to the classification of fires and fire extinguishers, and to the proper selection, installation, inspection, maintenance and testing of the portable fire extinguishing equipment used in postal owned and postal leased facilities. These requirements are minimum. Portable fire extinguishers are intended for use by employees with a limited amount of training as a first-line defense against incipient fires. Portable extinguishers are needed in addition to automatic systems and fixed protection equipment.

412 Purpose

This chapter provides maintenance and safety personnel with sufficient information to select, purchase, install, and maintain portable fire extinguishers. For more detailed information regarding portable extinguishers consult NFPA standards (see Exhibit 4-1).

420 THE COMBUSTION PROCESS

421 The Fire Triangle

The "fire triangle" is a three-sided figure that has been used to explain and describe fire combustion and extinguishment. The triangle (see Figure 4-1) illustrates that oxygen, heat, and fuel, in proportions, create a fire and that if any one of the three elements is removed a fire cannot exist.

422 The Fire Tetrahedron

In recent years, many new chemicals and materials have been produced that burn and react in a manner that is not explained completely by the use of the fire triangle. There have been several theories to address this problem. the "fire tetrahedron" is the one most generally accepted (see figure 4-2). The tetrahedron is a transition from the plane geometric triangle to a four-sided solid geometric pyramid. One of the four sides serves as a base and represents the chemical chain reaction. The three standing sides of the pyramid represent heat, fuel, and oxygen. This theory has not done away with the fire triangle, it has simply added a fourth component or condition.

430 CLASSES OF FIRES

431 General

Fire extinguishers are designed to extinguish fires involving various types of fuels. Fires are classified as A, B, C, or D or in combination.

432 Class A Fires

Class A fires are fires in ordinary combustible materials (wood, paper, cloth, plastics, rubber). Class A fires are extinguished by the heat absorbing effects of water, certain dry chemicals which retard combustion, or other agents which interrupt the chain reaction of fire development. Class A fires normally undergo surface burning and leave glowing embers and ashes.

433 Class B Fires

Class B fires are fires in flammable or combustible liquids (oil, kerosene, gasoline), flammable gases (acetylene, propane), and similar materials (naphtha, paint, styrene), that are extinguished by excluding oxygen, inhibiting the release of combustible vapors, or by interrupting the combustion chain reaction.

434 Class C Fires

Class C fires are fires in live electrical equipment and exposed metal surfaces where an electrical shock hazard exists (blower motors, control panels, conveyor motors, batteries, transformers, and generators). Extinguishers for Class A or B fires may be used if the electrical equipment has been safely deenergized. Water type extinguishers must not be used on energized electrical equipment fires.

435 Class D Fires

Class D fires are fires in certain combustible metals (magnesium, titanium, zirconium, etc.) that are extinguished by a heat absorbing agent that does not react with the burning metal. Generally, inert materials such as sand or dry powder are used to smother such fires.

440 EXTINGUISHER LABELING, NUMBERING, AND TAGGING

441 Conventional Labeling

Conventional labels for portable fire extinguishers are as follows:

- a. Class A extinguishers are identified by a green triangle containing the letter A (see Figure 4-3)
- b. Class B extinguishers are identified by a red square containing the letter B (see Figure 4-3).
- c. Class C extinguishers are identified by a blue circle containing the letter C (see Figure 4-3).
- d. Class D extinguishers are identified by a yellow star containing the letter D (see Figure 4-3).
- e. Multipurpose extinguishers are designed for use on more than one class of fire. They are identified by multiple symbols placed in a horizontal sequence on the front of the extinguisher shell immediately visible to the user (see Figure 4-3).

442 Pictographic Labeling

The pictograph system is the most recently recommended labeling system. It combines pictographs of both uses and nonuses on a single label. The new pictographs are designed so that their proper use may be determined at a glance. When an application is prohibited, the background is black and the slash is bright red. Otherwise the background is light blue. Row "a" indicates an extinguisher for Class A, B, and C fires. Row "b" indicates an extinguisher for Class B and C fires. Row "c" indicates an extinguisher for Class A and B fires. Row "d" indicates an extinguisher for Class A fires. Conversion to this method is recommended (see Figure 4-4).

443 Numbering

Location numbers must be applied to all extinguishers and the red background where the extinguisher is mounted to ensure accurate service and adequate inventory records. In multifloor structures, the extinguisher number may be prefixed by the floor designation.

444 Tagging

Form 4705, Fire Inspection Tag, must be fixed to each portable extinguisher. Complete all information required on each tag. Use the reverse side of the tag for recording monthly inspections (see Figure 4-5).

450 MOUNTING EXTINGUISHERS

451 Wall Mounted

Specific mounting heights based on the weight of the portable extinguisher are no longer required. Extinguishers must be available when needed and employees must not be subjected to injury when obtaining an extinguisher. If the possibility of damage to an extinguisher exists from rolling equipment, hampers, trucks, etc., suitable guards must be provided. The locations of extinguishers must be immediately visible from several different directions. Access to extinguishers must be maintained at all times. Floor areas below the extinguisher and their approaches must be kept free of materials, and red lines must be applied to the floor. A solid red rectangle must be applied to the wall behind the extinguisher, extending at least six inches beyond each side of the extinguisher. In USPS workrooms, if the extinguisher is not readily visible from several directions, an additional rectangle at least 12 inches wider than the extinguisher must be painted on the wall above the extinguisher at least 12 feet from the floor. Use additional directional signs where necessary.

452 Column Mounted

In USPS workrooms the location of column mounted extinguishers is indicated by a solid red band extending six inches above and below the extinguisher, encircling the column. If the location of the extinguisher cannot be immediately determined or is not readily visible from several directions, a red band at least 6 inches wide must be applied to the column at least 12 feet from the floor, encircling the column. Use additional directional signs where necessary.

460 SELECTION AND DISTRIBUTION OF PORTABLE EXTINGUISHERS

461 Selection

Due to the classification of potential workroom or office area hazards, the type of extinguisher to use in a given situation must be determined by the character of the fires anticipated, the surrounding construction, ambient temperatures, and other hazards. For general use, ABC multipurpose dry-chemical extinguishers are recommended. ABC dry-chemical extinguishers must be a minimum of 10 pounds in size. Where Class B and C fires are anticipated, carbon dioxide (CO₂) extinguishers are recommended. For sensitive electronic or computer equipment, Halon 1211 portable extinguishers are recommended.

462 Distribution

It is the policy of the postal service to distribute portable fire extinguishers, regardless of size or class, so that the maximum travel distance to any extinguisher does not exceed 50 feet. This includes elevated work platforms, conveyor walkways, and catwalks.

470 OBSOLETE EXTINGUISHERS

All soldered or riveted shell, self-generating soda acid, self-generating foam, and gas cartridge water type portable extinguishers operated by inverting the extinguisher to rupture the cartridge or to initiate an uncontrollable pressure generating chemical reaction to expel the agent are prohibited for use in any postal owned or postal leased building and **MUST BE REMOVED FROM SERVICE** (see Figure 4-6).

480 INSPECTION, MAINTENANCE, AND TESTING PORTABLE EXTINGUISHERS

481 Inspection

481.1 Monthly Inspection

The monthly inspection of portable extinguishers is a visual check to ensure the extinguisher is available and will operate. All portable extinguishers must be visually inspected monthly. Form 4705 must be signed by the inspector upon completion. At the minimum, monthly inspections ensure the following:

- a. The proper extinguisher is in its designated place and correctly mounted. Appropriate signs are provided.
- b. Access to, or visibility of, the extinguisher is not obstructed from several directions.
- c. Operating instructions are on the extinguisher nameplate, are legible, and face outward.
- d. Seals, tags, or tamper indicators are not missing or broken.
- e. Gauges and dials indicate the extinguisher is fully charged. Extinguishers without gauges and dials must be inspected according to the manufacturer's specifications.
- f. There is no physical damage, corrosion, leakage, dents, or cracked or clogged nozzles.

481.2 Annual Maintenance Inspection

The annual maintenance inspection of a portable extinguisher is a thorough check to ensure that it will operate effectively and safely. It includes a thorough examination, any necessary repair or replacement, and hydrostatic testing when required. The procedures found in HBK MS-1, Operation and Maintenance of Real Property Appendix 13-B, for performing annual maintenance must be carefully followed. Stored-pressure extinguishers do not require internal examination. Stored-pressure dry chemical extinguishers that require a 12-year hydrostatic test must be emptied and subjected to applicable maintenance procedures every 6 years. Dry-chemical extinguishers having nonrefillable disposable containers are exempt from this requirement. When recharging or hydrostatic testing is performed, the 6-year requirement begins from that date.

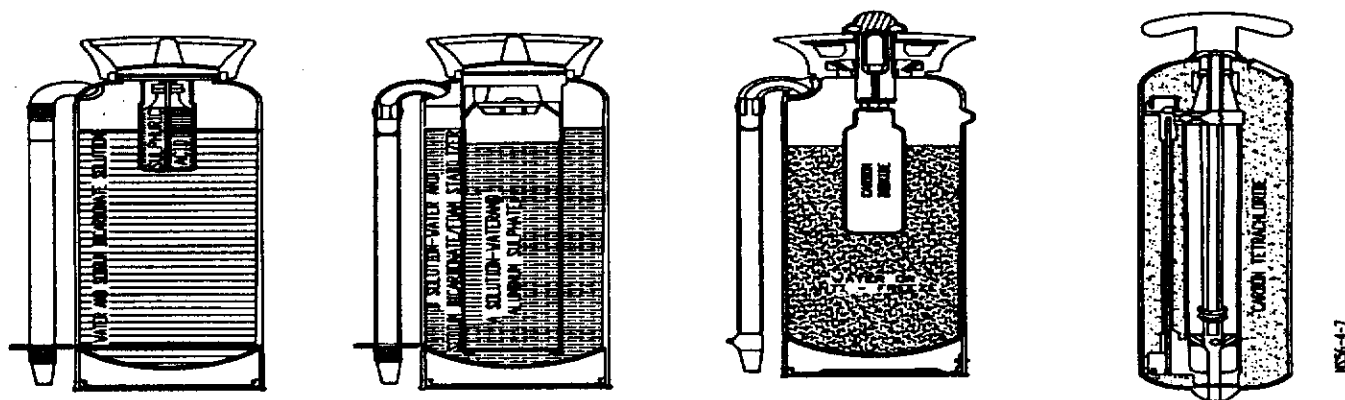


FIGURE 4-6

Table 4-1

EXTINGUISHER TYPE	TEST INTERVAL (years)
Soda Acid	Remove from service
Cartridge operated water and/or antifreeze	Remove from service
Stored pressure water and/or antifreeze	Remove from service
Wetting agent	Remove from service
Foam	Remove from service
Loaded Stream	5
Dry chemical with stainless steel shells or soldered brass shells	5
Carbon dioxide	5
Dry chemical, stored pressure, with mild steel shells, brazed brass shells, or aluminum shells	12
Dry chemical, cartridge operated, with mild steel shells	12
Bromotrifluoromethane - Halon 1301	12
Bromochlorodifluoromethane - Halon 1211	12
Dry powder, cartridge operated, with mild steel shells	12

NOTE

Except for stainless steel and steel used for compressed gas cylinders, all other steel shells are defined as 'mild steel' shells.

482 Hydrostatic Testing

Hydrostatic testing must be performed only by persons who are properly trained, equipped, and qualified to perform this service. All portable extinguishers must be hydrostatically tested at the intervals listed in Table 4-1.

483 Contracted Maintenance Services

Fire extinguisher maintenance, particularly hydrostatic testing, is a specialized activity. Services for shell-pressure testing, recharging, or other maintenance on portable extinguishers is procured by the postmaster under local purchase authority in all buildings which are postal owned or leased.

490 REPLACEMENT OF EXTINGUISHERS

A cost comparison between the costs of hydrostatic testing and the purchase cost to replace the extinguisher must be performed. If the total cost of testing exceeds 60 percent of the acquisition cost of a replacement extinguisher, the old extinguisher should be discarded and a new extinguisher procured. Serviceable extinguishers designated for disposal due to costs may be used for training purposes. Property Management and Disposal Price Schedules are available in most regions and may be used as a guide in selecting a suitable testing organization. Contact the Regional Manager, Procurement Branch, for further information.

EXHIBIT 4-1**REFERENCES AND STANDARDS****National Fire Protection Association Codes And Standards**

1. NFPA-10, Portable Fire Extinguishers
2. NFPA Fire Protection Handbook, Fifteenth Edition

OSHA General Industry Standards

3. 1910.157 Portable Fire Extinguishers

US Postal Service Documents

4. Employee And Labor Relations Manual par. 373
5. HBK MS-1, Operation And Maintenance Of Real Property

NOTE

For questions concerning OSHA standards, contact Human Resources Analyst/Safety Manager at your Area Office.

USPS documents and directives are requisitioned from area materiel distribution centers on form 7380 MDC Supply Requisition.

NFPA publications are available from:

National Fire Protection Association
Batterymarch Park
Quincy, MA 02269-9101

CHAPTER 5

HOT WORK FIRE PROTECTION

510 GENERAL

Hot work is maintenance work requiring use of tools or equipment that generate sparks, flame, or heat. This chapter covers the procedures to follow when performing hot work.

520 FIRE AND EXPLOSION POTENTIAL

Cutting, welding using electric arcs or oxy-fuel gas flames, chipping, or grinding presents a high potential for fire and explosion. Globules of molten metal and sparks can scatter as far as 35 feet, igniting a fire in many kinds of combustible materials. These globules and sparks can fall through cracks, pipe holes, or other openings in floors and partitions starting a fire that could reach serious proportions before being noticed. Prevention of these types of fires or explosions is achieved by separating these combustibles from ignition sources or by shielding.

530 APPROVAL

A designated management representative, usually the maintenance supervisor responsible for the work, must approve all hot work in advance of work assignment. Use of a hot work permit is required. When hot work is performed in a specific area designated and approved for such work, such as a maintenance shop, prior approval is not required. See Exhibit 5-1 for a suggested hot work permit.

MS-56, TL-3, 3-30-94

540 LOCATION

541 Authorized Hot Work Areas

In a building, hot work may be done in:

- a. A specific area designated and approved for such work, such as a maintenance shop.
- b. A detached outside location which must be of non combustible or fire resistant construction suitably separated from adjacent areas.
- c. An area made fire safe by removing or protecting combustibles from ignition sources, if the work (construction, repair, etc.) cannot be moved.

542 Unauthorized Hot Work Areas

Hot work may not be performed in:

- a. Areas with an explosive atmosphere, such as flammable gases, vapors, liquids or ignitable dusts.
- b. Areas with potentially explosive atmospheres, such as tanks, drums or other containers that had contained such flammable materials and were improperly cleaned or prepared.
- c. Areas near (closer than 50 feet) large quantities of exposed, readily ignitable materials.
- d. A sprinkled area when the sprinkler system is out of order.

550 PROCEDURE

551 Inspection

Prior to performing hot work, the designated management representative inspects the job site and determines if *hazardous and combustible materials are present or likely to be present. Combustible materials must be protected from ignition by:*

- a. Moving the hot work to a location free from dangerous combustibles.
- b. If the hot work cannot be moved, moving the combustibles to a safe distance, or shielding them against ignition by use of flameproof covers or guards.
- c. Scheduling hot work so that no other operations that might expose combustibles to ignition are begun during performance of the work.

552 Hot Work Permit

After a satisfactory inspection, the designated management representative completes and signs part A of the hot work permit. It must then be signed the mail processing tour superintendent or his designee. If the hot work is being done by a contractor, the contractor's representative must also sign part A. Part B must be signed 30 minutes after completion of hot work.

553 Assignment

When employees are assigned to perform hot work, they:

- a. Must be properly trained to do the work safely.
- b. Must have fire extinguishing equipment readily available at the site.

554 Fire Watcher

554.1 Need

A fire watcher must be present if any of the following conditions exist:

- a. Appreciable combustible material in building construction or contents closer than 50 feet to the point of operation.
- b. Appreciable combustibles are more than 50 feet away, but easily ignited by sparks.
- c. Wall or floor openings within a 50-foot radius which expose combustible material in adjacent areas, including concealed spaces in walls or floor.
- d. Combustible materials that are adjacent to the opposite side of metal partitions, walls, ceilings, or roofs are likely to be ignited by conduction or radiation.
- e. Other conditions which, if in the judgment of the designated management representative, require a fire watch.

554.2 Duties

The fire watcher remains in surveillance of the area for a period of 30 minutes after hot work is completed.

NOTE

When a fire watcher is not required, the designated management representative makes a final checkup thirty minutes after the completion of hot work to assure that no fire potential exists.

560 STORAGE AND USE OF OXYGEN AND ACETYLENE CYLINDERS

561 General

Oxygen and acetylene are widely used for hot work throughout the postal service. Acetylene is one of the most flammable substances used in industry. Oxygen, while not a fuel, supports combustion. Extreme care must be taken when handling these gases.

562 Storage

Oxygen and acetylene are usually stored in compressed gas cylinders. These cylinders must be stored in a designated and well ventilated area, at least 20 feet from combustible materials. Oxygen must be stored at least 20 feet from acetylene. All cylinders must be stored securely with valve protection covers in place. Acetylene cylinders must be stored and used with the valve end up. All inside storage areas must be dry and well protected. Cylinders must not be stored in mechanical equipment rooms or near access ways to exits.

563 Transportation

All cylinders must be transported in a secure position with valve caps in place. Acetylene cylinders must be secured with valve end up.

564 Inspection

Prior to acceptance, all cylinders must be inspected for defects. If a cylinder fails any of the following inspection steps, it must be returned to the supplier:

- a. Valve protection caps must be in place.
- b. There must be no dents exceeding 10 percent of the diameter or a dent wide and deep enough for a piece of material to lodge in, without rolling off the side of the cylinder.
- c. There must be no deep gouges.
- d. There must be no bulges.
- e. There must be no fire damage.
- f. There must be no deep pitting or corrosion.
- g. All cylinders must be color coded or otherwise marked as to their contents.

565 Cylinder Use

565.1 Moving

Cylinders may be moved only with a handtruck, or other suitable means. They must never be dragged.

565.2 Tools and Fittings

Only proper tools and handles may be used to install and operate valves and regulators. Pliers and crescent wrenches must not be used. Regulators may be left on cylinders provided:

- a. Cylinders are located away from areas where they may be damaged.
- b. Cylinders are secured in an upright position.
- c. All cylinder valves are shut off, and all regulators are properly bled down.

Only fittings designed for a specific application may be used. Handmade, converted, or adapted fittings must not be used.

EXHIBIT 5-2

REFERENCES AND STANDARDS

National Fire Protection Association Codes And Standards

NFPA 51 Standard For Fire Prevention In Use Of Cutting And Welding Processes

OSHA General Industry Standards

OSHA 29 CFR 1910.252

American National Standards Institute (ANSI) Standards

ANSI Z 49 Welding And Cutting

NOTE

for questions concerning OSHA standards, contact Human Resources Analyst/Safety Manager at your Area Office.

USPS documents and directives are requisitioned from area materiel distribution center on Form 7380 MDC Supply Requisition.

NFPA publications are available from:

National Fire Protection Association
Batterymarch Park
Quincy, MA 02269-9101

ANSI publications are available from:

American National Standards Institute
1430 Broadway
New York, NY 10018-3308

CHAPTER 6

FIRE ALARM SIGNAL AND DETECTION SYSTEMS

610 GENERAL

Fire alarm, signaling, and detection systems are key elements in the protection of buildings, properties, and lives. Properly designed, installed, and maintained they greatly limit the losses caused by fire and smoke. This chapter provides guidelines in the selection, installation, inspection, and maintenance of alarms, signaling, or detection systems for postal owned or postal leased buildings.

620 PURPOSE

These systems provide early detection and warning to building occupants, thus protecting lives and property. A simple system provides a reliable evacuation alarm, activated manually or automatically. The complexity of the system is influenced by the size and structural features, occupancy, hazards, age, and worth of the property. All components in a detection system must be listed by a nationally recognized testing laboratory, such as underwriter's laboratories. The installation of such systems must also conform with the provisions of the NFPA, the National Electrical Code, and other standards such as OSHA guidelines and those found in the Employee and Labor Relations Manual (see Exhibit 6-2).

630 TYPES OF ALARMS SYSTEMS

631 Use

There are five types of fire alarm signaling systems used in postal leased or owned buildings. They include local, proprietary, central station, remote, and auxiliary systems. These alarm systems may provide one or more of the following secondary services:

- a. Notifying the fire department of any emergency.
- b. Activating special fire suppressing systems to extinguish or control the fire.
- c. Automatically sending elevators to ground level for fire department use.
- d. Overriding elevator controls to prevent stops on a fire floor.
- e. Pressurizing stairwells for evacuation.
- f. Operating smoke and heat vents.
- g. Closing smoke or fire-rated doors and dampers.
- h. Shutting down heating, ventilation, and/or air conditioning systems for smoke control.
- i. Shutting down mail processing equipment.

632 Local Alarm Systems

Local alarm systems are considered the basic setup upon which other alarm systems are built. A local alarm system notifies occupants of a fire in the local premises. It is up to the occupants to notify the proper authorities.

633 Proprietary Alarm System

A proprietary alarm system is comprised of two or more separate local alarm systems tied into one central location owned or leased by the postal service. This system is often found in large postal facilities where several buildings are protected. The central alarm receiving point has monitoring equipment constantly staffed by specially trained maintenance or security personnel. These persons are trained in emergency procedures and are knowledgeable of alarm system operation and maintenance. Proprietary systems must be connected to a municipal fire department either by direct lines or through a municipal fire alarm system.

634 Central Station Alarm System

Central station systems are commercial companies contracted to monitor and receive alarms from postal owned or leased buildings. Usually these alarms are received via telephone equipment. The staffing and service provided is essentially the same as the proprietary system but is not performed by postal personnel. The central station must respond to all trouble and fire signals and either clear the trouble or notify the fire department and the postal service.

635 Remote and Auxiliary Alarm Systems

Local or proprietary alarms can be interconnected to a municipal fire alarm system. This system then is classed as a remote or auxiliary system. A remote system sends a signal directly from a postal facility to the fire department through postal owned equipment. A postal auxiliary system is connected to the municipal system through a master fire alarm box. The signal then is transmitted through the municipal fire alarm system.

640 TYPES OF SIGNALS

641 Alarm Signal

All postal employees should know how to respond when an alarm signal is given. This signal, sounded by a bell or a chime, indicates that a fire has been detected and that immediate action must be taken. This alarm is generally given throughout the building and is initiated by a manual or automatic device.

642 Trouble Signal

A trouble signal is an audible alarm at the control panel which tells the operator that there is something electrically wrong with the alarm system. When the trouble signal is given, maintenance personnel must be immediately notified. The trouble is given top priority until it is repaired.

643 Supervisory Signal

Supervisory signals are used to monitor the condition of particular fire equipment components. Included are such items as low water service pressure, loss of power to a fire pump, closing of a water supply valve, low water level in a supply tank, or near freezing temperatures in an outdoor water supply tank.

644 Voice Communication Systems

A voice communication system consists of a series of highly reliable speakers located throughout the postal facility connected to the fire console. When an alarm is sounded a live or pretaped message comes over the system giving specific evacuation instructions. This system may also be used during fire fighting operations for communicating with fire fighters.

645 Visual and Tactile Signals

Because postal buildings must be accessible to, and safe for, the handicapped, fire alarm systems must be equipped with visual alarm devices to protect individuals with impaired hearing. One of these devices is a combination horn/light that flashes and beeps when an alarm is sounded. There are also tactile devices on the market that indicate an alarm to the sense of touch.

650 ALARM INITIATORS

651 Pull Box

The most commonly used manual device in the postal service is the noncoded pull box. The pull box is a manual switch with a set of electrical contacts either open or closed, monitored by the alarm panel. When the box is manually activated, the contacts change the electrical current status, which activates an alarm signal (see Figure 6-1).

NOTE

All pull boxes must be unobstructed, readily accessible, and located in the normal path of exit.

652 Detectors

Fire detectors may also initiate alarms. See 660 for a more detailed discussion of detectors.

653 Extinguishing System Alarms

Most fire extinguishing systems in the postal service are interconnected to act as an alarm initiating device for the building alarm system. The activation of the extinguishing system generates an alarm that gives employees an opportunity to evacuate the building.

660 DETECTION SYSTEMS

661 Products of Combustion Detectors

There are three types of products of combustion detectors: heat, smoke, and flame (see Figure 6-2).

662 Heat Detectors

662.1 General

Heat is a major product of combustion. By using the principles of heat physics there are three ways to detect heat. The first principle states that heat causes the expansion of materials, the second that heat causes melting, and the third that thermoelectrical characteristics of heated metal are detectable. The detectors that use these principles to detect fire are the fixed temperature, the rate-of-rise, and the combination fixed temperature and rate-of-rise detectors.

662.2 Fixed Temperature Detectors

662.21 Use

Fixed temperature devices are found in many postal buildings because of their low cost and extreme reliability. The only drawback with this type of device is it must be replaced after a fire.

662.22 Bimetallic Thermostat

A fixed temperature detector responds when its operating element becomes heated to a predetermined level. The most commonly used in postal facilities is the bimetallic thermostat (see Figure 6-3). Its sensing element is made up of two metals having different coefficients of thermal expansion arranged so that the effect when heated is a deflection in one direction. This deflection opens or closes a set of contacts that initiate an alarm signal. These detectors must be checked after a fire to ensure that they have sustained no permanent damage. These detectors are self-resetting and reusable.

662.23 Fusible Alloys

A second type of fixed temperature detector is the fusible alloy that melts when exposed to heat. The most common fusible alloy detectors are fusible links. A soft metal such as solder holds a two piece link or latch mechanism together. When the solder melts, the link separates or the latch is released, causing an alarm to be sent.

662.24 Thermoplastic Polymers

Thermoplastic polymers provide another sort of detector. These polymers are used to insulate steel wires which are then wound around each other. When the melting point of the polymer is reached, the twisted pair of wires short together and initiate an alarm (see Figure 6-4). These cables can be run throughout large areas, forming a continuous fixed temperature alarm device. After a fire, the melted section is cut out and replaced.

662.3 Rate-of-Rise Detectors

662.31 Operation

All pneumatic rate-of-rise detectors work on the principles of heat and expansion. Most rate-of-rise detectors have a small chamber filled with air, the bottom of which is made up of a flexible metal diaphragm. As the air inside the chamber expands, the diaphragm is forced to move outward. As it moves, it forces a set of electrical contacts to either open or close (see Figure 6-5). This change in current initiates an alarm at the control panel. The expansion chamber also combines a small orifice that ensures a slow increase in ambient temperatures, or a drop in the barometric pressure, or both, will not cause the detector to initiate an alarm. These vents are built so that if the temperature changes rapidly, as in a fire, the rate of expansion exceeds the venting rate. Pneumatic heat detectors are available in both tube and spot type.

662.32 Thermoelectric Sensors

The only rate-of-rise detector that does not use the air chamber is the thermoelectric sensor. This sensor works on the principle that two wires of dissimilar metal twisted together, when heated at one end, will generate an electrical potential at the other end. The detector is electronically designed to bleed off or dissipate small currents. This allows it to disregard small or gradual temperature changes. When the change is great, the increase in current transmits an electrical signal to the alarm panel.

662.33 Use

Since rate-of-rise detectors are more complicated, they are slightly less dependable than the fixed temperature detectors. They also tend to be more expensive.

662.34 Combination Rate-of-Rise/Fixed Temperature Detectors

A fixed temperature detector becomes increasingly effective when combined with a rate-of-rise detector. This combination takes advantage of the capability of the rate-of-rise detector to respond to fast fires, and the dependability of the fixed temperature detector.

663 Smoke Detectors

663.1 General

Smoke is one of the easiest products of combustion to detect. There are two types of smoke detectors, ionization and photoelectric. A smoke detector operating on the photoelectric principle responds faster to the smoke generated by low energy fires, as these fires produce larger smoke particles. Smoke detectors using the ionization principle provide a somewhat faster response to high energy fires, since these fires produce large numbers of small smoke particles.

663.2 Ionization Smoke Detectors

Ionization detectors work in the following manner. A small amount of radioactive material is placed in a sensing chamber. The material ionizes the air in the chamber, thus making it conductive. A current flows through the air between two charged electrodes. When smoke particles enter the ionized area, they decrease the conductance of the air. When conductance is less than a predetermined level, the detector will respond (see Figure 6-6).

663.3 Photoelectric Smoke Detectors

663.31 General

Photoelectric detectors have been used for several years, particularly if the type of fire anticipated is expected to generate a substantial amount of smoke before temperature changes are sufficient to actuate a heat detector. This detector operates on a principle that smoke entering a light beam either obscures the beam's path or reflects light into a photocell.

663.32 Light Obscuration Detectors

Most light obscuration detectors are beams used to protect large open areas. They are installed with the light source at one end of the area and the receiver at the other end. When smoke particles enter the light beam, the light reaching the photosensitive device is reduced initiating an alarm. When this beam application is used a delay is generally programmed into the alarm switch. This delay allows an animal or the top of a piece of moving equipment to move through the beam without sending an alarm. The atmosphere in the area must be kept relatively clean to avoid false alarms.

663.33 Light Scattering Detectors

The operating principles of light scattering detectors are opposite of the light obscuration detector. A light beam passes through a small chamber toward the end away from the light source. The light does not normally strike the photocell. When smoke is drawn through the chamber, it causes the light beam to be reflected in random directions. A portion of the scattered light strikes the photocell, initiating a current which in turn activates an alarm. This type of detector must be carefully placed to ensure correct availability of air. When installed correctly, it is a reasonably reliable, sensitive detector.

NOTE

Smoke detectors must not be installed in areas where normal ambient temperature is likely to exceed 100°F or fall below 32°F (0°C), unless they have been specifically listed for installation at higher or lower temperatures.

664 Flame Detectors

664.1 General

Flame detectors detect the appearance of radiant energy visible or invisible to the human eye. Though they offer an extremely fast response, they may have a high false alarm rate due to the accidental placement of an infrared or ultraviolet source in their line of sight. Care must be taken to ensure that they can see the entire protected area. Although fairly expensive, they are well suited to protecting areas where explosive or flammable vapors or dusts are encountered.

664.2 Infrared Flame Detectors

Infrared detectors have a sensing element responsive to radiant energy outside of human vision. This detector can respond to either the total infrared component of the flame alone, or in combination with flame flicker in the frequency range of 5 to 30 hertz. To minimize false alarms infrared detectors must be mounted away from any sunlight and heat producing appliances.

664.3 Ultraviolet Flame Detector

Ultraviolet detectors have a somewhat wider application than the infrared, since they are essentially insensitive to both sunlight and artificial light. This detector uses either a solid-state device or a gas-filled tube for a sensing element.

665 Installation of Detectors

The location and spacing of detectors is based upon the principle of operation and an engineering survey of the conditions anticipated in service. Ceiling shape and surfaces, ceiling height, configuration of contents, burning characteristics of combustible material present, and ventilation are some of the conditions that must be considered. Refer to manufacturer's technical bulletins and applicable NFPA standards on detector uses and locations (see Exhibit 6-2).

670 MAINTENANCE AND TESTING

671 General

The maintenance and testing of all postal owned fire alarm and detection systems must be done by properly trained maintenance personnel. In addition, copies of the technical and parts manuals must be obtained from the manufacturer to assist in performing routine maintenance or repair. If competent technicians are not available to work on these systems, a service contract with an alarm company must be obtained (see Exhibit 6-1 for a chart of inspection and testing frequencies).

EXHIBIT 6-1

FIRE ALARM DETECTION AND SIGNALING SYSTEMS INSPECTION AND TESTING FREQUENCY

	DAILY	WEEKLY	BI MONTHLY	QUARTERLY	SEMI ANNUALLY	ANNUAL
NON SUPERVISED FIRE ALARM SYS- TEMS			X			
SUPERVISED FIRE ALARM SYSTEMS						X
FIRE ALARM SYS- TEM CONTROL BOARDS	X					
FIRE ALARM RE- CORDS		X				
MANUAL PULL STATIONS				X		
SUPERVISORY SIG- NALS				X		
BATTERY CHARG- ERS				X		
BATTERIES				X		
AUTOMATIC FIRE DETECTION OR ALARM DEVICE					X	
FIXED DETECTORS						5 YEARS AFTER 1st - 15 YEARS (2% OF)

672 Equipment Inspection**672.1 Alarms and Detectors**

A visual inspection of equipment must be performed on a regular basis. Bells, gongs, buzzers, pull boxes, detectors, etc., must be free of paint, dirt, or any damage which may interfere with their operation. Exposed circuit wiring must be checked for wear, punctures, cracks, and other defects which could render the insulation ineffective. Conduit must be inspected for proper support and solid connections.

672.2 Control Boxes

All control boxes must be clean, properly identified, and have no obstructions or foreign objects in or around them.

672.3 Battery Systems

Battery systems used as emergency power sources must be kept clean and fully operational. Battery levels must be checked and maintained at least once every quarter.

672.4 Manual Pull Stations

On new installations, pull boxes must be checked to ensure they are located near exits and all natural paths of escape. Additional boxes must also be provided so that the travel distance to the nearest box does not exceed 200 feet. All pull stations must be unobstructed, and each unit must be easy to operate. Any damage or cracked glass must be immediately replaced and the unit must be checked for proper operation. The manual pull station system must be tested at least quarterly. A different pull box must be used for each test.

673 Detector Testing

673.1 General

An alarm is only as reliable as the detectors it uses, so detectors require periodic testing. Three conditions require testing: The initial installation, after a fire, and after an elapsed period of time. All fire detector testing must be in accordance with applicable NFPA standards (see Exhibit 6-2).

673.2 Fixed Temperature Detectors

Testing of nonrestorable fixed temperature detectors is not required until 15 years after installation. After the fifteenth year, and every 5 years thereafter, at least two detectors out of every hundred, or fraction thereof, must be removed and sent to a nationally recognized testing laboratory for tests. The detectors that have been removed must be replaced with new detectors. Failure of any detector requires additional detectors to be submitted for testing. Cable type line detectors must have the loop resistance tested semiannually.

673.3 Spot Type Heat Detector

Restorable spot type heat detectors are tested on a regular basis. At least one detector on each signal initiating circuit must be tested semiannually, and a different detector must be selected for each test. They may be tested with a portable heat source such as a hair dryer or heat lamp with a temperature shield.

673.4 Pneumatic Detector

Pneumatic line type detectors must be tested for leaks and proper operation semiannually. These detectors may be tested with a heating device or with an approved pressure pump. If a pressure pump is used, the manufacturer's instructions must be followed.

673.5 Smoke Detectors

Smoke detectors must be tested semiannually in accordance with manufacturer's instruction. Instruments to perform tests and set sensitivities are generally available from the manufacturer.

NOTE

Blowing smoke near a detector is not considered a proper test.

673.6 Flame Detectors

Flame detectors must be tested at least semiannually as prescribed by the manufacturer and more often if found to be necessary for the application in question. Due to the intricacy and expense of this equipment, it is recommended that training, or a service contract, be obtained from the manufacturer.

673.7 Records

A permanent record of all detector tests must be kept on the premises for at least 5 years. The minimum information required on these records are the date, detector type and location, type of test, name of inspector, and the results.

674 Control Equipment Inspection

674.1 General

Control equipment consists of local annunciator panels and signal switching or transmitting devices. When testing, verify that the proper zones are indicated on all annunciator panels and that the time stamp is clearly recording the time and location of the signals.

674.2 Alarms and Power Sources

All alarms associated with these panels must be inspected to see that they are clean and operable. The supervisory power source must be checked for proper operation by viewing the pilot light or gauge. If an emergency power supply is installed, it is tested by interrupting the 120 volt AC power supply to ensure the unit will convert to battery.

NOTE

During all testing, the municipal signal must be disabled and the fire department notified. After all tests are completed, the devices must be returned to their normal standby condition.

680 RESPONSIBILITY

In all buildings owned by the postal service, the USPS is responsible for periodic inspections and routine preventive maintenance of fire alarm detection and signaling systems. In buildings operated by the General Services Administration, GSA is responsible for repair and or replacement of alarm systems and components. In leased buildings, the lessor is responsible for repairs to the alarm system and replacement of components unless otherwise indicated in the terms of the lease. In total maintenance leased buildings, the postal service is responsible for repairs and replacement as well as preventive maintenance. There must be no delays in the repair of alarm systems. All repairs must be termed emergency and receive priority attention. If a fire alarm system has to be taken out of service, all key personnel must be informed. Form 4707, Out of Order Tag, must be displayed whenever any station is inoperative.

EXHIBIT 6-2

REFERENCES AND STANDARDS

National Fire Protection Association Codes And Standards

NFPA 71 Central Station Signaling Systems

NFPA 72a Local Protective Signaling Systems

NFPA 72b Auxiliary Protective Signaling Systems

NFPA 72c Remote Station Protective Signaling Systems

NFPA 72d Proprietary Protective Signaling Systems

NFPA 72e Automatic Fire Detectors

Fire Protection Handbook (fifteenth Edition):

SECTION 15 Fire Alarm Systems, Detection Devices, And Guard Services

CHAPTER 2 Protective Signaling Systems

CHAPTER 4 Automatic Fire Detectors

OSHA General Industry Standards

1910.165 Fire Detection Systems

1910.164 Employee Alarm Systems

US Postal Service Documents

Employee And Labor Relations Manual par. 853

HBK MS-1, Operation And Maintenance Of Real Property: Section, Electrical Systems Fire Alarm Systems Storage Batteries

NOTE

For questions concerning OSHA standards, contact Human Resources Analyst/Safety Manager at your Area Office.

USPS documents and directives are requisitioned from area materiel distribution centers on Form 7380 MDC Supply Requisition.

NFPA publications are available from;

National Fire Protection Association
Batterymarch Park
Quincy, MA 02269-9101

CHAPTER 7

STANDPIPE AND HOSE SYSTEMS

710 GENERAL

711 Scope

This chapter covers the minimum requirements for the maintenance and inspection of standpipe and hose systems when installed in postal owned or postal leased buildings.

712 Hardware

Standpipe systems may be supplied by either a direct connection to a water supply, a fire department pumper, or both. These connections and outlets may be in either a vertical or horizontal position and are usually located on each floor, on roofs, in basements, or outside in open yard areas of larger facilities.

713 Water Supply

A standpipe system must be supplied with adequate water and pressure in order to be effective. Properly installed systems provide a quick and convenient means for operating hose streams. A standpipe system is an arrangement of piping, valves, hose connections, hose outlets, and allied equipment.

714 Effectiveness

Standpipe systems which are properly designed, equipped, and maintained are an effective means for extinguishing fires. Even in buildings equipped with automatic sprinkler systems, standpipes may be a necessary complement. The standpipe system furnishes a reliable means of obtaining effective hose streams in the shortest possible time in difficult to reach areas.

715 Classification

Standpipe systems are classified according to their intended use. There are three classes of standpipe systems:

- a. Class I systems are designed for use by fire departments only. Class I service must furnish the effective hose streams required during the more advanced stages of a fire. These systems employ the large 2 1/2 inch hoses. Postal employees are not authorized to use this system.
- b. Class II systems are designed for use by building occupants who are not trained in advanced interior structural fire fighting operations. These systems use 1 1/2 inch outlets and hoses. If the building is equipped with a Class II system, postal employees assigned to the fire brigade are to be trained in the use of this system.
- c. Class III systems are designed for use by both fire departments (those trained in the use of heavy hose streams) and the building occupants. A Class III system is capable of furnishing adequate water volume and pressure to meet the requirements of Class I and Class II service. It is not recommended that postal employees use this system.

720 TYPES OF SYSTEMS

There are four types of standpipe systems currently in use at many postal installations:

- a. Wet standpipe systems which have the water supply open and maintain water pressure at all times.
- b. Dry standpipe systems which admit water to the system through the operation of a manually activated control valve.
- c. Dry standpipe systems which admit water to the system automatically through the use of approved devices such as dry pipe valves.
- d. Dry standpipe systems which have no permanent water supply and must be supplied with water by the fire department.

730 WATER SUPPLY FOR STANDPIPE SYSTEMS

To fight a fire, the amount of water required for standpipe systems depends upon the size and number of fire hose stations that will be needed and the probable length of time they will be used. Both of these factors are largely influenced by the construction and occupancy of the building.

740 SYSTEM REQUIREMENTS

741 General

Closets and cabinets used to contain fire hoses must be of sufficient size to permit the installation of the necessary equipment at hose stations, and designed so as not to interfere with the prompt use of the hose valves, the hose, and other equipment in the event of an emergency. Within the cabinet, the hose valves must be located so that there is at least 1 inch between any part of the cabinet and the handle of the valve when the valve is in any position from fully open to fully closed. The cabinet must be used for fire equipment only and each cabinet must be conspicuously identified.

742 Number and Location of Standpipes

742.1 Local Requirements

The number and arrangement of standpipe equipment necessary for proper protection is governed by local conditions such as occupancy, character and construction of the building, exterior exposures, and accessibility.

742.2 Hose Station Distribution

When Class I, Class II, and Class III service is installed, the number of hose stations in each facility and in each section of a building divided by firewalls must be such that all portions of each story of the building are within 30 feet of a nozzle attached to not more than 100 feet of approved hose. In buildings divided by numerous partitions, standpipes must be located so that hose streams can be brought to bear in any room.

743 Location of Standpipe

Standpipe risers and horizontal standpipe runs must not pass through hazardous areas and must be located so they are protected from mechanical and fire damage. Dry standpipes must not be concealed in building walls or built into pilasters.

750 HOSE CONNECTION REQUIREMENTS

751 Location

Hose connections must be within easy reach of a person standing on the floor and may in no case be over 6 feet from the floor. Hose connections must be conspicuously located within the immediate area and not obstructed.

752 Threads

Hose connection threads should conform to the American National Fire Hose Connection Screw Threads, as specified in applicable NFPA standards (see Exhibit 7-1). Check to ensure local threads are compatible with fire department equipment.

753 Hose, Hose Racks, and Nozzles

753.1 Requirements

Each hose connection provided for use by building occupants (Class II and Class III services) must be equipped with not more than 100 feet of approved, listed 1-1/2 inch lined hose, with nozzle, attached and ready for use. Each station provided with 1-1/2 inch hose must be equipped with an approved, listed rack assembly or other approved storage facility. Each rack or storage facility for 1-1/2 inch hose must be provided with a label affixed to the cabinet door stating "Fire Hose For Use By Occupants," and operating instructions. Nozzles for Class II service hose must be listed and approved with a variable hose stream and shutoff capability.

753.2 Hose Connections For Dry Standpipes

Each hose connection for dry standpipes must be provided with a conspicuous, durable, and permanently legible sign reading "Dry Standpipe For Fire Department Use Only."

760 TESTS, INSPECTIONS, AND MAINTENANCE

761 Tests

761.1 Regular Tests

Piping between the fire department connection and the check valve in the inlet pipe must be tested hydrostatically in the same manner as the balance of the system, at intervals of not less than 5 years.

761.2 Dry Pipe Testing

In a standpipe system, any piping which normally remains dry must be tested hydrostatically at 50 pounds per square inch above the normal pressure, at intervals of not less than 5 years.

762 Inspection

762.1 General

Systematic periodic inspections of all portions of the standpipe system are essential. Inspection procedures for standpipe systems, frequency, and reports are found in HBK MS-1, Operation And Maintenance Of Real Property (Appendices 13-A and B).

762.2 Inspection Procedures

Regular inspection and testing of standpipe systems is necessary to ensure proper operation. Standpipe inspections must include all valves and piping leading from the water supply to the hose stations. When conducting periodic inspections, check the following:

- a. Wet standpipes must be inspected semiannually.
- b. Hose closets and cabinets are used for fire equipment only.
- c. Water supply control valves are chained or otherwise sealed in the open position.
- d. Discharge outlets are checked for proper operation, gasket condition, presence of corrosion, stoppage, and leaks. If the valves in the wet system are operated during the inspection, before initiating tests, the main water supply valve must be closed and the system drained.
- e. Tanks are 2/3 full of water and if pressurized, at least 75 psi is maintained. Precautions against freezing are to be taken when necessary.
- f. Dry standpipe systems are inspected annually to ensure operational readiness.
- g. Discharge outlets in a dry system are checked to see they are closed.
- h. The hose is inspected for general condition, dryness, and proper position on the swingout rack or holder. It must be removed and reracked at least annually. The swingout rack must operate easily.
- i. The threads on all nozzles and couplings are not damaged, or out of round. Ensure all rubber gaskets are in good condition.
- j. The fire department connections are accessible, between 18 and 36 inches from the ground, caps are in place, threads are not damaged, the check valve operates, and no debris has been placed in the connection that would obstruct the flow of water.
- k. Each hose cabinet or closet is provided with a conspicuous sign which reads "Fire Hose" and/or "Fire Hose For Use By Occupants."
- l. Fire department connections have the proper fire department thread and are posted with a sign reading "Standpipe."
- m. Dry standpipes are posted with a sign reading "Dry Standpipe For Fire Department Use Only."

763 Maintenance

Ensure that water supply tanks are kept at the proper level. When pressure tanks are used, ensure that specified pressure for the system is maintained at all times:

- a. Valves in the main piping connections to the automatic sources of water supply must be kept fully open at all times.
- b. At least once a year, and after each use, hose systems must be inspected to ensure that all equipment and hoses are in place, available for use, and in a serviceable condition.
- c. When the system or any portion thereof is found to be unserviceable, it must be removed from service immediately and replaced with equivalent protection, such as extinguishers or fire watches.
- d. At least once a year, all existing hose must be unracked, physically inspected for deterioration and reracked using a different fold pattern. All defective or otherwise unserviceable hose must be replaced with approved, lined hose.

EXHIBIT 7-1

REFERENCES AND STANDARDS

National Fire Protection Association Codes And Standards

NFPA-13, Standard For The Installation Of Sprinkler Systems

NFPA-13E, Recommendations For Fire Department Operations In Properties Protected By Sprinkler And Standpipe Systems

NFPA-14, Standpipe And Hose Systems

NFPA-20, Standard For The Installation Of Centrifugal Fire Pumps

NFPA-22, Standard For Water Tanks For Private Fire Protection

NFPA-24, Standard For Outside Protection

NFPA-1961, Standard For Fire Hose

NFPA-1962, Standard For The Care, Use And Maintenance Of Fire Hose Including Connections And Nozzles

NFPA-1963, Standard For Screw Threads And Gaskets For Fire Hose Connections

OSHA General Industry Standards

29 CFR 1910. 158, Standpipe And Hose Systems

US Postal Service Documents

HBK MS-1, Operation And Maintenance Of Real Property

NOTE

For questions concerning OSHA standards, contact the Human Resources Analyst/Safety Manager at your Area Office.

USPS documents and directives are requisitioned from area materiel distribution centers on Form 7380 MDC Supply Requisition.

NFPA publications are available from:

National Fire Protection Association
Batterymarch Park
Quincy, MA 02269-9101

CHAPTER 8

SPRINKLER SYSTEMS

810 GENERAL

811 Scope

This chapter cites applicable portions of the OSHA standards, and NFPA and USPS regulations regarding the operation and maintenance of various types of sprinkler systems when installed in postal owned or leased buildings.

812 Purpose

This chapter provides the installation head and maintenance and safety personnel with the necessary information to maintain, repair, inspect, and test both wet and dry type sprinkler systems. Additional information is included to inform maintenance personnel of extra sources and guides to be used in maintenance procedures.

820 DEFINITION

A sprinkler system is a series of pipes, valves, and various mechanical equipment distributed in a given location that conveys water to outlets for fire extinguishment. Sprinkler systems, which are normally automatic, afford protection to property, equipment, and personnel by extinguishing fire promptly, and continuously discharging water directly on the burning materials.

830 BASIC REQUIREMENTS

831 Fire Department Connections

Each sprinkler system must have a minimum of one (1) connection which allows the fire department to pump water directly into the system. These connections must be identified by a sign having raised letters at least one inch (1") cast on a plate or fitting showing the type of sprinkler (i.e. AUTO SPKR or OPEN SPKR).

832 Vertical Clearance

Sprinklers must have a minimum vertical clearance of eighteen (18") inches above material below them: so as to properly protect/sprinkle the assigned area.

833 Water Supply

Every automatic system must be provided with an automatic water supply capable of providing design flow for at least 30 minutes.

834 Flow Alarms

Water flow alarms must be provided on all systems consisting of more than 20 sprinklers.

840 TYPES OF SPRINKLERS

841 Wet Pipe Systems

841.1 Location

Wet pipe systems are only installed where they cannot freeze and where water will not create additional hazards.

841.2 Use

Systems are charged with pressurized water at all times. Systems operate automatically when the fusible element is released due to a heat build-up. Hose connections may be attached to wet pipe sprinkler systems, if the water supply satisfies both designed demands.

842 Dry Pipe Systems

842.1 Location

Dry pipe systems are normally installed in areas where the system or portions of the system may freeze.

842.2 Use

These systems are normally charged with compressed air that is released when one or more of the fusible heads are subjected to heat buildup in a given location. The system must be installed so that it may be totally drained without the formation of water pockets that could freeze and cause damage to the system or prevent portions from operating as designed.

843 Deluge and Preaction Systems

843.1 Location

Deluge and preaction systems are used for fast total application, and are usually found in hazardous areas, such as conveyor openings in the floor. Preaction systems are designed to protect properties where there is danger of serious water damage as a result of damaged automatic sprinklers or broken pipes.

843.2 Use

In deluge systems, the entire fire area is sprinkled by admitting water to sprinklers that are open at all times. Deluge systems are actuated by using sensitive thermostatic controls operating on the rate-of-rise or fixed temperature principle or controls designed for individual hazards.

Preaction systems differ from standard dry pipe systems in that the preaction system water supply valve is actuated independently of the opening of sprinklers and is opened by the operation of the automatic fire detection system, not by the fusing of a sprinkler head.

850 ASSOCIATED EQUIPMENT

851 Valves

A typical sprinkler system may include: test valves, control valves (i.e. OS & Y, backflow), check valves, dry pipe valves, and deluge or preaction valves. They are used for flow control, and flow monitoring and usually are supervised to cause the activation of an alarm and/or a supervisory signal in case of water flow or tampering.

852 Alarm Systems

Water motor alarms are required on all systems and are actuated by the flow of water.

853 Sprinkler Heads

Sprinkler heads are used in a given location based on the temperature requirements, the type of system, and on the spray pattern required. When sprinkler heads are replaced, caution must be used so that they are replaced with a head of the same color code or temperature rating (see Figure 8-1).

854 Pumper Connections

On connections installed for fire department pumper connections, caution must be exercised to be sure threads used on connections are compatible with the local fire department. If threads are not compatible, an adapter may be required. Required mounting height is between 81 and 36 inches from floor.

855 Fire Pumps

Fire pumps supplement the water supply available from public mains, gravity tanks, reservoirs, or other sources. Generally, the centrifugal fire pump is considered standard mainly because of its compactness, reliability, ease of maintenance, hydraulic characteristics, and variety of available drives. Drives for fire pumps may be an electric motor, internal combustion engine, or steam turbine type. Fire pumps must be housed to prevent freezing, dirt accumulation, corrosion, and tampering.

856 Retarding Chamber

Wet pipe systems that are subject to fluctuating water supply pressures need an alarm retarding device in order to prevent false alarms. Retarding chambers are inserted in the water line from the alarm check valve to the water motor gong and the electric circuit.

857 Exhauster or Accelerator

Dry pipe systems with a capacity of more than 500 gallons must have quick opening devices such as exhausters or accelerators. These devices operate as a result of a quick, but not large, drop in system air pressure. Both devices employ 2 chambers, one open to the dry pipe system and the other closed except for a small orifice which allows its internal pressure to equalize with the normal dry pipe air pressure. The two chambers are separated by a diaphragm which, under given pressure, moves and actuates valves and mechanisms that open the dry pipe valve.

860 TESTING

861 Inspector Test Valves

Inspector test valves which provide for flow equivalent to that from one sprinkler, must be opened at least annually to ensure proper operation of the sprinkler system.

862 Flow Test

A water supply test pipe and pressure gauge must be provided to determine whether water supplies and connections are in order. A 2-inch drain at the sprinkler riser may suffice as a water test valve.

863 Acceptance Test

Acceptance tests for new system installations must include all of the following:

- a. Flushing of system and underground connections.
- b. Hydrostatic tests of piping.
- c. Air tests of dry pipe systems.
- d. Dry pipe valve operation.
- e. Drainage tests.
- f. Certification of tests and materials by qualified contractor.

864 Repairs

Faulty items identified during testing or inspections must be repaired immediately. All sprinkler system repairs must be termed EMERGENCY and receive priority attention. When required to secure a system or a portion of a system for maintenance or repair, notification must be given to the proper authorities, including installation head, maintenance manager, fire department, maintenance control office or such other offices as may be required by the installation head. Standby or alternate protection such as fire watch, additional fire extinguishers, etc. must be provided.

870 MAINTENANCE

871 Responsibility

871.1 Postal Owned Buildings

The U.S. Postal Service is responsible for periodic inspections, routine preventive maintenance, and repairs on the sprinkler systems in all buildings it owns.

871.2 GSA Owned Buildings

In all buildings owned by the General Services Administration, GSA is responsible for all preventive maintenance, testing, replacement, and repair to sprinkler systems and components.

871.3 Lessor Maintained Leased Buildings

In leased buildings, the lessor is responsible for repairs to sprinkler systems and components unless otherwise indicated in the terms of the lease.

871.4 USPS Maintained Leased Buildings

In total maintenance leased buildings, the Postal Service is responsible for repairs and replacement of system components as well as testing and preventive maintenance.

872 Inspection

872.1 Valves

All valves must be checked annually to verify that they are in good operating condition, turn easily, and do not leak. Valves must be unobstructed at all times and identified as to location, use, and portions of system controlled.

872.2 Alarms

System alarms must be tested every quarter (see Chapter 6).

872.3 Sprinklers

Basic sprinkler maintenance must include an annual check of heads to verify that sprinklers have not accumulated an excessive amount of foreign material (such as dust, paint, or even plastic bags that have been placed on them for protection while painting). Materials must not be stacked closer than 18 inches to a sprinkler head.

872.4 Maintenance Checklists And Guidelines

Checklists and guidelines to perform routine maintenance are available from the following sources:

- a. HBK MS-1, Operation And Maintenance Of Real Property, (Appendix 13-B)
- b. OSHA Safety And Health Standards (29 CFR 1910).
- c. National Fire Protection Association 13 and 13A.
- d. Manufacturer's maintenance and repair manuals.

NOTE

See Exhibit 8-1 for a further list of applicable references.

873 Training

873.1 Inspector Training

Systems must be inspected annually by a person knowledgeable in the design and trained in the function of the system to ensure the system is properly maintained.

873.2 Employee Training

The employees designated to inspect, maintain, operate, or repair sprinkler systems must be properly trained in all system functions.

873.3 Training Records

Employee training records must be reviewed periodically and training updated as necessary in all functions employees are required to perform.

EXHIBIT 8-1

REFERENCES AND STANDARDS

National Fire Protection Association Codes And Standards

NFPA-13 Standard For The Installation Of Sprinkler Systems

NFPA-13A Recommended Practice For The Care And Maintenance Of Sprinkler Systems

NFPA-14 Standard For The Installation Of Standpipe And Hose Systems

NFPA-15 Standard For The Installation Of Centrifugal Fire Pumps

NFPA-101 Life Safety Code, Section 7-7

NFPA Fire Protection Handbook

OSHA General Industry Standards

1910.159 Automatic Sprinkler Systems

1910.160 Fixed Extinguishing Systems

US Postal Service Documents

Employee And Labor Relations Manual par. 850

Form 1784, Safety And Health Inspection Checklist

Management Instruction AS 510-83-3 Building And Site Design Safety Requirements

NOTE

For questions concerning OSHA standards, contact Human Resources Analyst/Safety Manager at your Area Office.

USPS documents and directives are requisitioned from area materiel distribution centers on Form 7380 MDC Supply Requisition.

NFPA publications are available from

National Fire Protection Association
Batterymarch Park
Quincy, MA 02269-9101

CHAPTER 9

SPECIAL PURPOSE FIXED EXTINGUISHING SYSTEMS

910 GENERAL

911 Scope

This chapter covers applicable OSHA, NFPA, and USPS requirements for the inspection, testing, maintenance, and repair of special purpose fixed extinguishing systems installed in postal owned or leased buildings (see Exhibit 9-1 for a list of these references).

912 Purpose

This chapter provides the basic maintenance standards, special requirements, and uses of special purpose fixed extinguishment systems.

913 Definition

Special purpose fixed extinguishing systems are systems designed to provide fire protection to specific operations, such as computer rooms and electrical and electronic equipment.

920 SYSTEM REQUIREMENTS

921 Alarms

Distinctive alarms or signaling systems that are able to be perceived above ambient light or noise levels must be installed on all fixed extinguishing systems. If the system discharge is not immediately recognizable, alarms or signals must alert employees. Tactile devices may be required to alert those employees who would not recognize a visual or audible alarm. Total flooding systems must be provided with employee predischARGE alarms.

922 Signs

Hazard or caution signs must be posted inside of, and at the entrance to, areas where fixed extinguishing systems are installed.

923 Abort Switches

Manual pull stations and abort switches must be provided on each fixed system.

924 Records

Agent container inspection and maintenance dates must be recorded on the container, on an attached tag, or in a central location. The original weight and pressure of agent containers must be checked semiannually. Manufacturer's specifications must be available in maintenance files.

925 Rescue

Where a total flooding system may entrap personnel, a prompt means of rescue must be provided. Special training and warning signs must be considered.

930 TYPES OF SYSTEMS**931 Carbon Dioxide (CO₂) Systems****931.1 Description**

CO₂ is a colorless, odorless, electrically nonconductive inert gas that extinguishes fire by reducing the concentrations of oxygen until combustion stops.

931.2 Ineffective Use

CO₂ does not extinguish fires in chemicals with their own oxygen supply, or reactive metals such as sodium or magnesium.

931.3 Uses

CO₂ systems are used to extinguish fires in specific hazards or equipment, and in areas where an inert electrically nonconductive medium is essential. CO₂ is effective on:

- a. Gaseous or flammable liquids.
- b. Electrical hazards such as transformers, oil switches, circuit breakers, etc.
- c. Engines using gasoline or other flammable fuels.
- d. Ordinary combustibles, such as paper, wood, and textiles.

931.4 CO₂ System Safety

- a. CO₂ dilutes oxygen in the air. This can create hazardous atmospheres. Large volume discharge of CO₂ seriously interferes with visibility during and immediately after discharge.
- b. When using a CO₂ system, if personnel may be trapped in or enter hazardous atmospheres, suitable safeguards must be provided for prompt evacuation of, and to prevent entry into, such areas. Safeguards may be such things as predischage alarms or flashing lights.
- c. CO₂ systems with a design concentration of 4 percent or greater must have a predischage alarm for alerting employees.

932 Halon 1301 Systems

932.1 Description

Halon 1301 is a colorless, odorless, electrically nonconductive fire extinguishing gas.

932.2 System Safety

Halon systems must not be used in concentrations less than 5 percent nor greater than 7 percent in areas where people work. Exposure to Halon 1301 vapors in low concentrations for brief periods may be accomplished without serious risk.

NOTE

Halons are not to be used on certain chemical mixtures such as gun powder or on reactive metals such as sodium, potassium, or magnesium.

932.3 Environmental Concerns

Halon 1301 is covered under the Clean Air Act of 1990. It has been identified as a targeted chemical. As such, it will not be produced after Jan. 1, 1994.

The U.S. Postal Service, is at this time, locating all Halon systems and developing a program that will comply with the regulations contained in the Clean Air Act of 1990 and it's amendments. There is nothing in the current regulation that prohibits its use in fire extinguishing systems, but the U.S. Postal Service is investigating alternative systems and an abatement program.

932.4 Uses

Halon systems are useful for extinguishing fires in specific hazards or equipment, where electric nonconductivity is essential, where cleanup presents a problem, or where weight vs. extinguishing potential is a factor. In the Postal Service, Halon systems are found in Bulk Mail Centers (BMCs), Transportation Management Offices (TMOs), Postal Source Data Systems (PSDSs), Electronic And Computer-originated Mail (ECOM) sites, and other computer equipment areas. *Halon is effective on the following:*

- a. Gaseous or flammable liquid materials.
- b. Electrical hazards such as transformers, circuit breakers, and electronic equipment.
- c. Engines using gasoline or flammable fuels.
- d. Ordinary combustibles such as paper and wood.
- e. Hazardous solids.

940 SYSTEM OPERATION

941 Automatic Operation

941.1 Pneumatic Operation

Pneumatic operation occurs when the rate of temperature rise in the hazard area becomes excessive to the point where the pneumatic control head vent cannot bleed off the pressure fast enough and the control head operates.

941.2 Electric Operation

Electric operation occurs when the temperature or ionization conditions in the hazard area rise to the point where the electrical fire detector operates, activating the control head or solenoid valve located on the extinguisher assembly discharge control valve assembly.

942 Manual Operation

942.1 Local Operation

Local operation is performed by activating the system at the extinguisher supply assembly. Operating instructions must be posted at this location.

942.2 Remote Control

Remote operation is performed by pulling the handle of the remote control box marked for a given hazard area.

950 TRAINING

All persons expected to inspect, test, maintain, and operate fire extinguishing systems must be thoroughly trained and competent in the functions they are expected to perform.

960 TESTING

961 Requirements

Systems and their components must be thoroughly inspected and tested in a manner as set forth in HBK MS-1, Operation And Maintenance Of Real Property.

962 High Pressure Cylinders

High pressure cylinders used in fire extinguishing systems must not be recharged without a hydrostatic test if more than five (5) years have elapsed from the date of the last test. Cylinders continuously in service without having discharged may be retained in CO2 service for a maximum of twelve (12) years before testing and recharging, and in Halon 1301 service for a maximum of twenty (20) years before testing and recharging. The pressure container must be made, tested, approved, equipped, and marked in accordance with the current specifications of the American Society of Mechanical Engineers (ASME) Code For Unfired Pressure Vessels. For compressed gas cylinders passing a hydrostatic test, the month and year is stamped into the cylinder only on the shoulder, top head, neck, or footing.

970 MAINTENANCE

971 Operating Condition

Systems must be maintained in full operating condition at all times. Any repair of a system must be a priority item classified EMERGENCY.

972 Service Requirements

Damaged or inoperative components must be replaced at once by competent service personnel. It is recommended that system maintenance be performed by a contractor qualified and approved by the system manufacturer.

973 Monthly Inspection

A monthly general inspection of the system must be made to ensure damage to equipment and piping has not occurred, and that access to the extinguisher assembly and control boxes is maintained.

974 Pressure Checks

All agent supply cylinder pressure gauges must be checked monthly for proper operating pressure.

975 Cylinder Weight

Extinguisher assemblies must be checked for proper weight semiannually. If there is a loss of weight, in excess of 5 percent or a loss of pressure of more than 10 percent, the cylinder must be repaired and/or recharged.

976 Designation

All components must be checked to verify that they are properly designated, and are provided with proper operating instructions.

EXHIBIT 9-1

REFERENCES AND STANDARDS

National Fire Protection Association Codes And Standards

NFPA 12, Standard For Carbon Dioxide Extinguishing Systems

NFPA 12A, Standard For Halon 1301 Fire Extinguishing Systems

NFPA 75, Standard For Computer/data Processing Equipment

NFPA 101, Life Safety Code, Section 7-7

Fire Protection Handbook, Section 18

OSHA General Industry Standards

1910.160 Fixed Extinguishing Systems, General

1910.161 Fixed Extinguishing Systems, Dry Chemical

1910.162 Fire Extinguishing Systems, Gaseous Agent

1910.164 Fire Detection Systems

1910.165 Employee Alarm Systems

NOTE

For questions concerning OSHA standards, contact Human Resources Analyst/Safety Manager at your Area Office.

USPS documents and directives are requisitioned from area materiel distribution centers on Form 7380 MDC Supply Requisition.

NFPA publications are available from:

National Fire Protection Association
Batterymarch Park
Quincy, MA 02269-9101

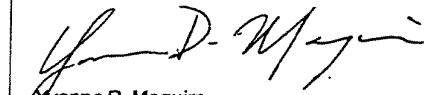
cc: HR Staff
[Signature]

Management Instruction

Emergency Response to Mail Allegedly Containing Anthrax

This instruction provides emergency response procedures and management guidelines for incidents in which letters or parcels are received that allegedly contain anthrax, a biologically hazardous material.

Date	October 8, 1999
Effective	Immediately
Number	EL-860-1999-3
Obsoletes	None
Unit	Safety and Health


Yvonne D. Maguire
Vice President
Human Resources

Background

Recent Incidents

In 1998 and 1999 there have been several instances where postal customers have reported receiving letters or parcels that allegedly contained a specific biologically hazardous material, anthrax. Even though hoaxes, such mailings, a form of bioterrorism that is unsettling to employees and to the community, fall in the category of "undeclared prohibited mailings." The possibility that the mailings do contain hazardous materials cannot be ignored, however, and such mailings should be treated with all caution.

Anthrax

Anthrax is an acute infectious disease caused by *bacillus anthracis*. Spores enter the body through open wounds, cuts, or mucous membranes (mouth, nose) or are inhaled or ingested. Humans usually get the disease by coming into contact with spores of infected animals (cattle, sheep, goats) or their products. It is probably not transmitted from person to person, and a person with anthrax is not contagious. *Bacillus anthracis* spores can cause disease in 2 to 60 days.

Individuals who have been identified as having had an exposure to anthrax may be treated by medication.

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MIDWEST AREA OFFICE
RECEIVED

NOV 01 1999

MANAGER
HUMAN RESOURCES

Policy

General

The Postal Service is committed to providing a safe and healthful work environment for its employees. Suspected bioterrorism threats or suspicious incidents require prompt action by health, safety, law enforcement, and laboratory personnel. Coordination and communication are essential to protect first responders and employees.

Responsibilities

Postal Service Management

The Federal Bureau of Investigation (FBI) has jurisdiction for bioterrorism response, and the Inspection Service coordinates with the FBI. It is management's responsibility to minimize potential exposures through quick *isolation and evacuation* until emergency response and law enforcement can arrive and take control of the incident.

Managers must ensure the following:

1. All employees, through safety talks, hazardous materials first-responder training, and emergency action plan training, must be instructed on initial actions to take if there has been a suspected exposure to anthrax (or other biologically hazardous material).
2. Emergency action plans, crisis management plans, hazardous materials spills response instructions, medical service standing orders, and other related standard operating procedures must be modified to incorporate appropriate guidance.

Crisis management plans must be revised to do the following:

- a. Include appropriate actions to ensure initial coordination with the FBI and outside responders through the Inspection Service.
- b. Detail other initial actions to isolate and contain potential contamination and deal with potentially exposed employees.
- c. Cover subsequent actions, including proper medical treatment (using current Center for Disease Control (CDC) guidelines), employee counseling, and media liaison.

The emergency action plan must include the telephone numbers of the initial and secondary contacts.

Contractors and Suppliers

Contractors and suppliers who handle and transport mail and function outside of postal facilities must have in place and be able to demonstrate proficiency and compliance with state required and approved hazardous cargo, bloodborne pathogen, and related hazard response protocols, including international airport response procedures.

Any incident that falls within these requirements must be reported to the Postal Service immediately upon notification of the hazard.

Emergency Response Procedures

Employees Who Suspect Mail Is Contaminated

- 1> Do not handle the mailpiece or package suspected of contamination.
- 2> Notify the postal supervisor, who will immediately contact the facility safety office or other designated person.
- 3> Make sure that damaged or suspicious packages are isolated and the immediate area cordoned off.

Individuals Who May Have Touched a Contaminated Mailpiece

- >> Wash your hands and wait for further instruction from management and, ultimately, outside emergency response experts.

Internal Postal Spill and Leak Teams

- >> Do **not** handle suspect packages, clean areas, or take any response action other than to retreat, isolate, and notify management in accordance with the facility standard operating procedures.

Facility Management

- 1> Alert employees to stay in evacuation areas and not leave postal property so that they can receive necessary information and medical follow-up if appropriate.

- 2>** Invoke the emergency action plan, including the following:
- a. Effecting mechanical shutdowns (including air handling equipment), isolation, and evacuation.
 - b. Notifying the Inspection Service.
 - c. Notifying Postal Service Aviation Mail Security Office.
 - d. Notifying postal and local community emergency responders, which may include the health department, fire department, or local law enforcement.

8 Safety and Health

810 Occupational Safety and Health Program ---

811 General

811.1 Authority

The Postal Service is subject to Public Law No. 91–596, the Occupational Safety and Health (OSH) Act of 1970, pursuant to the Postal Employee's Safety Enhancement Act (PESEA) of 1998. The OSH Act provides for citations, penalties, and criminal referrals for those employers who fail to comply. The Occupational Safety and Health Administration (OSHA) is responsible for promulgating and enforcing standards and regulations under the OSH Act.

811.2 Principles

811.21 Management Commitment, Involvement, and Accountability

Managers must demonstrate commitment to providing safe and healthful working conditions in all postal-owned and postal-leased installations, become involved in day-to-day safety performance, and be held accountable for safety performance and compliance with OSHA standards and regulations (see Handbook EL-802, *Executive's and Manager's Safety Compliance Guide*).

811.22 Vision Statement

The Postal Service will become a leader in occupational safety and health for the federal government and private sector by demonstrating a commitment to integrating working safely into all our services.

811.23 Guiding Principles

People — Employees are our most valued resource. Our employees must be provided a safe and healthful workplace.

Customers — When our employees work safer, our performance is improved.

Excellence — We can demonstrate that management and employee attention to working safely is good business.

Integrity — As a leader in occupational safety and health, we enhance our integrity with our customers, business partners, and the Congress.

Community Responsibilities — When our employees work safely, our customers are safer and we lead other employers by example.

811.24 **Safety Philosophy**

It is the position of the Postal Service that:

- a. Any occupational injury or illness can be prevented. This goal is realistic, not just theoretical. Supervisors or managers have primary responsibility for the well-being of employees and must fully accept this principle.
- b. Management, which includes all levels including the first-line supervisor, is responsible and accountable for the prevention of accidents and control of resultant losses. Just as the line organization is responsible for attaining production levels, ensuring quality of performance, maintaining good employee relations, and operating within cost and budget guidelines, supervisors and managers must likewise accept their share of responsibility for the safety and health of employees.
- c. It is possible to safeguard against all operating exposures that can result in accidents and injuries and illnesses. It is preferable to eliminate the sources of danger. However, where this is not practical, management must use protective measures such as machine guards, safety devices, administrative actions, and personal protective equipment.
- d. All employees must be trained in proper work procedures and must be educated to work safely and to understand that they are responsible for doing so. Management is responsible for the adequate safety training and education of employees. However, all employees are responsible for working safely, and in being so, they benefit not only their organization but also themselves in a very real way.
- e. It is good business from the standpoint of both efficiency and economy to prevent personal injuries on and off the job. In addition to humanitarian considerations, injuries drain resources and reduce efficiency.

811.3 **Offsite Safety**

The Postal Service Safety and Health Program and OSHA standards and regulations cover postal employees who perform postal duties in establishments of private employers and during delivery and other activities off postal property. Safe and healthful working conditions must be provided through engineering or administrative controls, personal protective equipment, enforcement of safe work practices, withdrawal of the employees from the private sector facility, or curtailment of mail, if necessary, to ensure that they are protected.

811.4 **Records Retention and Disposition**

For retention and disposal instructions for the records and forms referenced in 810 through 850, see items 32 through 42 of the Appendix, *Records Control Schedules*, or the Records and Information Management Systems, RIMSWEB.

812 **Management Responsibilities**

812.1 **Headquarters**

812.11 **Postmaster General**

The postmaster general is responsible for the establishment and maintenance of an effective, comprehensive occupational safety and health program that fully complies with the OSH Act.

812.12 **Chief Operating Officer**

The chief operating officer ensures that area management implements and maintains effective safety and health programs by, among other activities, monitoring Executive Safety and Health Committee activities during business quarterly reviews.

812.13 **Officers**

Officers of the Postal Service are delegated the authority and responsibility to ensure safe and healthful working conditions and practices within their functional areas and compliance with OSHA standards and regulations.

812.14 **Vice President of Employee Resource Management**

The vice president of Employee Resource Management (ERM) is delegated the authority and responsibility to administer and evaluate the safety and health program.

812.2 **Area Offices**

812.21 **Vice President of Area Operations**

Vice presidents of Area Operations are responsible for providing effective safety and health programs in their areas and compliance with OSHA standards and regulations

812.22 **Area Human Resources Managers**

Area Human Resources managers are responsible for monitoring safety and health programs and performance in conformance with national policy and direction.

812.3 **Installation Heads**

Installation heads are responsible for employee safety and health and for compliance with OSHA standards and regulations, including maintenance of the OSHA Log and Summary of Injuries and Illnesses. Their responsibility includes the development and implementation of an effective safety and

health program. They must formulate and post a local safety and health policy statement consistent with national policy. Installation heads in facilities without full-time safety personnel also act as or designate the collateral duty safety person (see 813.32 and Handbook EL-802, *Executive's and Manager's Safety Compliance Guide*).

812.4 **Middle-Level Managers**

Middle-level managers are responsible for the safety and health program within their operations. This responsibility includes OSHA-mandated written programs, employee training, accident prevention activities, and evaluation of supervisor safety performance. Middle level managers coordinate activities, including the correction of identified safety deficiencies, with other operational managers.

812.5 **Supervisors**

First-line supervisors are responsible for implementing written programs and plans, safety and health training, completion of Form 1783, *On the Job Safety Review/Analysis*, for their area, observing employees' safety performance, and preventing operational safety errors. Specific responsibilities are listed in applicable management instructions and in Handbook EL-801, *Supervisor's Safety Handbook*.

812.6 **Objectives and Action Plans**

All managers, at every level in every function, must have specific fiscal year safety and health objectives, with accompanying action plans for their accomplishment. These plans should be based on accident, injury, and illness experience, and safety and health program evaluations. Action plans must list specific activities that will be taken to reduce accidents and injuries and ensure compliance with OSHA standards and regulations.

813 **Safety and Health Staff Responsibilities**

813.1 **Headquarters**

Safety Performance Management (SPM), Employee Resource Management, assists the vice president of Employee Resource Management in the administration and evaluation of the safety and health program by monitoring and improving the program and related safety and health policies, procedures, and standards. Safety Performance Management, in conjunction with the General Counsel and other functional organizations, establishes policy and procedures to manage OSHA compliance activity, including citations, penalties, abatement, negotiated settlements, and OSHA-related judicial procedures. To ensure that safety is integrated into all postal operations, Safety Performance Management provides safety and health expertise and staff support to other Headquarters functional areas and area offices, as necessary. Safety Performance Management provides comment on proposed OSHA regulations to Government Relations and coordinates and works with other federal agencies, private sector employers, and professional groups on matters of safety and health.

813.2 Area Offices

The area Human Resources manager assists the area vice president in the implementation of national safety and health policies, programs, and directives. This responsibility includes long-term planning and monitoring activities. Area Human Resources managers, in conjunction with field legal counsels, provide oversight and advice on OSHA compliance activities.

The area Human Resources manager supports the performance clusters in the administration of their safety and health programs and monitors status of the OSHA Log and Summary of Injuries and Illnesses. Responsibilities include budgeting for and scheduling safety and health resources, including professional development of the safety and health staff.

813.3 Performance Clusters**813.31 Safety Personnel**

Safety personnel are responsible for developing and monitoring a comprehensive safety and health program for facilities within their geographical boundaries.

While the specific responsibilities of safety personnel may vary depending on the size of the organization, the number of locations, and the type of operations, the major function is that of a technical advisor and consultant to line management. To support line management, they contribute their experience, knowledge, and judgment to the formation of management's decisions that affect safety and health. Safety personnel functions include:

- a. Monitoring status of the OSHA Log and Summary of Injuries and Illnesses for all facilities in the cluster and advising management of deficiencies.
- b. Collaborate with management representatives on preparing and administering written OSHA-required programs.
- c. In coordination with the injury compensation and medical staff, assisting the line organization in solving safety and health problems, interpreting policies, standards, and regulations and providing management with detailed actions to be taken.
- d. Analyzing accident, injury, and illness statistics, hazardous condition reports, inspection results, and related data in order to advise management on corrective actions.
- e. Identifying and assessing accident and loss-producing conditions, practices, and trends.
- f. Conducting periodic safety and health inspections and program evaluations.

Additionally, full-time district safety personnel assist collateral duty safety and health personnel with technical advice and support, OSHA reporting, and related issues.

813.32 Collateral Duty Safety Personnel

The installation head or designee is the collateral duty safety person in smaller facilities in which there are no full-time safety positions and performs safety-related duties appropriate to the size and function of the facility. This person also conducts the annual safety and health inspection in his or her facility if there are less than 100 workyears of employment (see 827.5). He or she performs the inspection under the guidance and supervision of district safety personnel. Collateral duty safety personnel must be trained commensurate with their duties, using postal approved courses.

814 Employee Rights and Responsibilities**814.1 Rights**

Employees have the right to:

- a. Become actively involved in the Postal Service's Safety and Health Program and to be provided a safe and healthful work environment.
- b. Report unsafe and unhealthful working conditions, using Form 1767, *Report of Hazard, Unsafe Condition, or Practice*.
- c. Consult with management through appropriate employee representatives on safety and health matters, i.e., program effectiveness and participation in inspection activities where permissible.
- d. Participate in the safety and health program without fear of restraint, interference, coercion, discrimination, or reprisal.

814.2 Responsibilities

It is the responsibility of all employees to:

- a. Comply with all OSHA and postal safety and health regulations, procedures, and practices, including the use of approved personal protective equipment.
- b. Keep the work area in a safe and healthful condition through proper maintenance of property and equipment.
- c. Immediately report safety hazards and unsafe working conditions and perform all duties in a safe manner.
- d. Keep physically and mentally fit to meet the requirements of the job.
- e. Immediately report any accident or injury in which they are involved to their supervisors, regardless of the extent of injury or amount of damages.
- f. Drive defensively and professionally; extend courtesy in all situations; and obey all state, local, and postal regulations when driving a vehicle owned, leased, or contracted for by the Postal Service.

815 Executive and Management Safety and Health Committees**815.1 Structure and Responsibilities****815.11 National Executive Safety and Health Committee**

(Reserved)

815.12 Area Executive Safety and Health Committee

The area executive safety and health committee — chaired by the area vice president and consisting of district managers, area office managers (as determined by the vice president), and chief postal inspectors — must meet at least quarterly. The area vice president establishes a system to track and monitor committee activities. The committee is responsible for following objectives established by the national Headquarters action plan and/or for establishing area action plans (using process management or other means) that achieve national and area goals. The area committee must monitor and review:

- a. Required safety and health inspections and abatement actions.
- b. Required program evaluation and implementation.
- c. Safety and health training and recordkeeping.
- d. Local joint labor-management safety and health committee activities.

The chief operating officer, during business quarterly reviews, monitors area executive committee activities.

815.13 Performance Cluster Executive Safety and Health Committees

The performance cluster executive safety and health committee, chaired by the district manager, must meet quarterly. The committee must include plant managers, postmasters of large associate offices, critical enabling managers (e.g., Maintenance, In-Plant Support), and others as determined by the district manager and the committee. Their primary responsibilities are to review:

- a. Required safety and health inspections and abatement actions.
- b. Required program evaluation and implementation.
- c. Safety and health training and recordkeeping.
- d. Local joint labor-management safety and health committee activities.

The committee must report to the area on actions taken, and the area vice president must establish a system to track and monitor committee activities. The committee develops additional action plans to improve situations not addressed at a higher level. In addition, the committee must continually assess the adequacy of safety and health staffing at the plant level and must monitor the quality and frequency of safety inspections and abatement activities within the performance cluster.

815.14 Plant Management Safety and Health Committee

The committee, chaired by the plant manager, is composed of plant safety, maintenance, and other enablers as appropriate. The committee meets as often as needed, but at least once every quarter. Primary responsibilities are to implement objectives established at a higher level and to develop additional objectives to improve the local safety and health program. To achieve these objectives, the committee must review and discuss safety and health program evaluations of the facility, accident injury trends, accident reports, OSHA compliance activity, and local safety inspection reports to identify the major safety and health problems. Based on these identified problems, the committee develops and implements action plans — with assigned responsibilities for improvement — and measures their effectiveness (using process management or other means). When objectives are not being met, action plans must be altered accordingly.

815.15 Other Levels

Safety and health management committees need not be established at levels below the plant, but safety and health must be a standard agenda item for regular staff meetings.

815.2 Written Minutes

Written minutes of all management meetings at each organizational level must be prepared and retained for a period of 3 years. A copy of the area, performance cluster, and plant minutes must be submitted to the chairperson's immediate manager.

816 Joint Labor-Management Safety and Health Committees**Reference Note:**

For additional material concerning the subject matter found in 816, refer to:

- Article 14 of the collective bargaining agreements.

Joint labor-management safety and health committees must be established and must function in accordance with applicable collective-bargaining agreements.

817 Training and Education**817.1 Management Training and Education****817.11 Supervisors**

All supervisors must receive safety and health training in accordance with the curriculum established by Safety Performance Management and Employee Development. Local offices, districts, and/or Headquarters provide this training.

817.12 Executives and Managers

Executives and managers at the plant level and above must be provided an orientation that discusses their responsibility for:

- a. Safety and health program commitment, involvement, and accountability.
- b. OSHA Compliance.
- c. Elements contained in a safety and health program evaluation.
- d. Accident investigation and reporting.
- e. Safety and health training requirements.

817.2 Safety and Health Staff Training and Education

Safety and health personnel must be provided, at least annually, professional training and education to enable them to carry out their basic duties and to fulfill their roles as advisors and consultants to management. Collateral duty safety personnel must also be trained commensurate with their safety-related duties. Safety Performance Management mandates postal and/or external training or curriculums, as necessary, to ensure an effective safety staff and OSHA compliance. To maintain their technical proficiency, safety and health personnel are encouraged to pursue professional credentials and advanced education and to participate in professional safety and health-related organizations. Management must give a high priority to supporting these efforts to realize a professional safety staff. Specialized training not available within the Postal Service may be authorized in accordance with 740.

817.3 Joint Labor-Management Safety and Health Committee Orientation

Each member of a local committee must receive an orientation by the Postal Service that includes:

- a. Responsibilities of the committee and its members.
- b. OSHA compliance.
- c. Basic elements of the safety and health program.
- d. Identification and analysis of hazards and unsafe practices, including job safety analyses.
- e. Explanation of reports and statistics to be reviewed and analyzed by the committee.

817.4 Employee General Safety Orientation

All employees, including casuals and part-time employees, must receive a general safety and health orientation and sufficient on-the-job training to enable them to follow safe work practices, to recognize hazards, and to understand the benefits to be gained by following safe work practices. Such training must also include applicable safety rules and OSHA compliance, including any local job safety analysis for tasks assigned. All employees must be trained as required by OSHA standards if their jobs so require (see 817.5).

817.5 OSHA Required Training**Reference Note:**

For additional material concerning the subject matter found in 817.5, refer to:

- Management Instruction EL-810-95-3, *Bloodborne Disease Exposure Control Plans*.
- Management Instruction EL-810-96-1, *Response to Hazardous Materials Releases*.
- Management Instruction EL-810-96-2, *Hazard Communication Programs*.
- Management Instruction EL-810-98-1, *Asbestos Containing Materials Control Program*.
- Management Instruction EL-810-99-1, *Lead Hazard Management*.
- Management Instruction EL-810-94-2, *Hearing Conservation Programs*.
- Handbook AS-556, *Asbestos Management Guide*.
- Management Instruction EL-810-93-1, *Confined Space Safety*.
- Current safety-related MMOs (e.g., Lockout/Tagout, Hazard Communication, Personal Protective Equipment), and memorandums of policy on the Safety and Health homepage.

817.51 Standard Curriculum

Employee Development, in coordination with Safety Performance Management and other Headquarters functional areas, is responsible for developing, implementing, and keeping current a safety and health training curriculum to comply with OSHA standards and postal policies. Managers and supervisors at all levels must refer to this curriculum and ensure that all affected employees are trained and that training is current and properly recorded.

817.52 Special Emphasis Program Training

Special emphasis training programs must be developed and initiated by Headquarters, areas, districts, plants, and other offices as appropriate, in accordance with 721.22, to reduce the principal causes of accidents and injuries and occupational illnesses and ensure OSHA compliance

817.53 Hazardous Materials Communication and Training

In installations where employees handle or transport hazardous materials, the installation head must establish a program of promoting safety awareness

through communications or training, as appropriate (see MI-EL-810-96-1). Such a program must include, but is not limited to, the following elements:

- a. Posting of information, pamphlets, or publication of articles in postal publications such as area bulletins and use of distributed videos on *Hazwoper Awareness* and *Hazcomm Awareness*.
- b. Distribution of Publication 52, *Acceptance of Hazardous, Restricted, or Perishable Matter*, to employees whose duties may require acceptance or dispatch of hazardous or perishable items. Distribution of Handbook EL-812, *Hazardous Materials and Spill Response*, to employees whose duties may include handling of hazardous materials and initial response to spills and leaks (First Responder Awareness Level). Acceptance and dispatch personnel must use Tag 44, *Sack Contents Warning*, to appropriately identify all mailbags containing hazardous materials as defined in Publication 52 so that an employee handling the mail is aware that the mailbag contains one or more hazardous materials.
- c. On-the-job awareness training of employees whose duties may require the handling or transportation of hazardous or perishable items. This training must include, but is not limited to, (1) hazard identification, (2) proper handling of hazardous materials, (3) personal protective equipment availability and its use, and (4) cleanup and disposal requirements for hazardous materials.

817.6 Refresher Training

Motor vehicle, powered industrial truck, asbestos, hazardous materials, and other refresher training programs must be developed and provided per OSHA regulations and postal policies. Such programs must also be used for correction of improper work practices before accidents result and/or for improvement training following an accident.

817.7 New or Additional Equipment and Techniques Training

Training must be provided when new or additional equipment or techniques are introduced that may, if not properly used, adversely affect safe and healthful working conditions and/or OSHA compliance.

817.8 OSHA Poster 2203, Job Safety and Health Protection

Each facility must post OSHA Poster 2203, *Job Safety and Health Protection*, in a conspicuous place. This poster outlines management responsibilities, and employee responsibilities and rights under the OSH Act. Both English and Spanish versions are available from the material distribution centers.

817.9 Training Records

Records of safety and health training must be maintained for each employee. These records must be retained to demonstrate compliance with Postal Service policies and OSHA requirements. The records must be available to allow inspection in a timely manner by Postal Service and/or OSHA officials. All safety training must be recorded on Form 2548, *Individual Training Record*

(or equivalent), and recorded into the Local Employee Training System and/or National Training Database.

818 **Safety and Health Program Budgeting**

All organizational levels must plan budgets and provide funds that support an effective and comprehensive safety and health program. Such budgeted items must include, but are not limited to:

- a. Sufficient personnel and support to properly implement and administer the program at all levels, including necessary administrative costs such as those for training, computers, travel, communication, and personal protective equipment.
- b. Hazard analysis, including industrial hygiene evaluations, sampling, testing, diagnostic and analytical tools and equipment, and laboratory analyses, as deemed appropriate.
- c. Any necessary contracts to identify, analyze, or evaluate unsafe or unhealthful working conditions and operations, as deemed appropriate.
- d. Development and delivery of safety awareness and promotional programs.
- e. Technical information documents, software, books, standards, codes, periodicals, and publications.

819 **Accountability for Safety and Health Performance, Compliance, and Evaluations**

In any evaluation of individual performance or potential, provisions must be made to include the achievement or failure of managers, supervisors, and/or employees in the performance of their safety and health responsibilities, including OSHA compliance. Evaluations must not be based solely on the number and seriousness of accidents, injuries, and illnesses experienced but also on how effectively the safety and health program has been implemented and supported.

820 Reports and Investigations, Program Evaluations, and Inspections

821 Actions in the Event of Accident, Injury, or Illness

821.1 Injury, Illness and Accident Reporting

821.11 Overview of Overlapping Postal and OSHA Reporting and Logging Requirements

The Postal Service is required by OSHA regulations to record occupational injuries and illnesses in a log and summary format and maintain a supplementary record of occupational injuries and illnesses. In addition, the Postal Service maintains the Human Resources Information System (HRIS) Safety and Health Subsystem, to meet safety and health program and business needs. To avoid duplication, Form 1769, *Accident Report*, is used both for inputting accidents into the Safety and Health Subsystem, and conducting subsequent analyses and for fulfilling OSHA requirements for a supplementary record of occupational injuries and illnesses (in lieu of the OSHA form). This extended use of the Form 1769 is accomplished by using the "Narrative" block to record the additional information required by OSHA. See 822 for additional OSHA and postal serious accident and fatality reporting.

821.12 Reporting Requirements

821.121 General Requirements for Using Form 1769, Accident Report

The manager or supervisor of the employee or operation involved must:

- a. Report all accidents and occupational injuries and illnesses on Form 1769, *Accident Report*, within 24 hours of the date of the accident, the diagnosis of injury or illness, or the notification of the manager or of the situation.
- b. Provide a copy of Form 1769 to the employee involved upon written request.

Completion of the form is required by postal policy if an accident occurs and by the OSH Act if an occupational injury or illness that is recordable by the OSHA definition occurs, regardless of tort claim action or the requirements of the Federal Employees' Compensation Act.

Note: Form 1769 definitions are not the same as that of OSHA's private sector recording requirements. Part 1904 [c] contains OSHA's definitions of injuries and illnesses.

Information submitted to the Office of Workers' Compensation Programs (OWCP) on Forms CA-1, *Federal Employee's Notice of Traumatic Injury and Claim for Continuation of Pay/Compensation*, and CA-2, *Notice of Occupational Disease and Claim for Compensation*, must be identical with that on Form 1769.

821.122 OSHA Requirements

Requirements for recording OSHA recordable injuries and illnesses and maintaining a supplementary record (using Form 1769 in lieu of the OSHA form, see 821.131) are published in OSHA Publication OMB 1218 0176, *Recordkeeping Guidelines for Occupational Injuries and Illnesses*. This publication is available through field safety professionals, and is also available on the OSHA Website at <http://www.osha.gov>. See Section 821.142 and consult with safety professionals regarding maintenance of the OSHA log and summary.

821.123 HRIS Requirements

Form 1769 must be recorded in the Safety and Health Subsystem by the servicing safety office when any one of the following situations occurs:

- a. An employee injury or illness is reported. The appropriate OSHA recordable indicator and postal reportable status are identified in the Safety and Health Subsystem by a safety professional using OSHA recordkeeping guidelines for determining OSHA recordables, and PS Form 1769 instructions for postal reportability.
- b. A CA-5 or a CA-6, *US Dept of Labor Official Superior's Report of Employee's Death*, is submitted to the OWCP.
- c. An injury or fatality to a nonpostal person on postal premises occurs. Note that this is not an OSHA recordable event unless a contractor is involved (see OSHA Publication OMB 1218 0176).
- d. A motor vehicle accident occurs that results in death, injury, or property damage, regardless of costs or who was injured (if anyone) or what property was damaged.
- e. Damage of \$500 or more to postal property or to property of customers or the general public occurs, regardless of whether an injury was involved.
- f. Fire damage of \$100 or more to postal property occurs.

821.13 Reporting Using Form 1769**821.131 Completing Form 1769**

The manager or supervisor of the employee or operation reports all accidents and occupational injuries and illnesses on Form 1769 within 24 hours, using the "Narrative" block to record the employee's home address and the full circumstances of the accident — the who, what, when, where, why, and how of the injury or cause of illness.

821.132 Reviewing Form 1769

Review is conducted as follows:

- a. The *supervisor's immediate manager* reviews each Form 1769 as to its accuracy and application (including OSHA recording status), conducts a follow-up to ensure that positive action has been taken to prevent similar occurrences, and endorses the report in Item 57.
- b. The *installation head* or designee must review the report to see if positive action has been taken or is planned.

- c. *Servicing safety personnel* must ensure that accident causes are identified, that the action taken is appropriate, and endorse the report in Item 59.

821.133 **Notifying the Safety Office of Controverted Claims**

If a traumatic injury or CA-2 is controverted and the OWCP sustains the controversion, notify the servicing safety office to amend the HRIS records.

Note: There is no relationship between OSHA records and the decision of the OWCP.

821.134 **Notifying the Safety Office of Corrections**

Correct erroneously recorded data by submitting a copy of the Form 1769, annotated "Amended," through the servicing safety office to the HRIS. Circle the items that need to be corrected and enter the correct data. Make corrections to the OSHA log and summary if necessary, in accordance with OSHA Publication OMB 1218 0176.

821.14 **Maintaining Logs and Summaries**

821.141 **Postal Accident Log**

Each facility, i.e., plant, associate office, station, branch, etc., must maintain an accident log, by fiscal year, of all accidents recorded in the Safety and Health Subsystem, using Form 1772, *Accident Log*. Enter accident information within 5 working days after receiving Forms 1769. Make entries in sequential order and number as necessary.

Exception: Maintenance of station and branch accident logs at the appropriate plant or associate office level is permitted if provisions are made for at least semiannual feedback of data to each station or branch for local management, employee representatives, and employee access. (An OSHA log and summary must be maintained for every facility, however.)

Note: This form is *not* the OSHA log and summary, but a separate log of *all* accidents recorded in the Safety and Health Subsystem.

821.142 **OSHA Annual Summary of Injuries and Illnesses**

Each facility must maintain a log and summary, by calendar year, of OSHA recordable occupational injuries and illnesses from Forms 1769. All such injuries and illnesses must be recorded on the log within 6 days of receipt of the information. A copy of the log, updated within 45 calendar days, must be present at all times in the facility. Post copies of the summary for a minimum of 30 consecutive days (NLT February 1 to March 1) in a conspicuous place(s) at every facility. Maintain and retain the OSHA log and summary for 5 years following the end of the calendar year.

Safety personnel will provide the OSHA log and summary and updates as needed, from the HRIS Safety and Health Subsystem.

821.2 Accident Investigation**821.21 Responsibility**

Managers and supervisors are responsible for investigating all accidents promptly, determining their cause(s), and reporting them accurately in accordance with OSHA and postal regulations. Management should consult with safety personnel when accident causes cannot be readily determined.

821.22 Method

In order to have first-hand knowledge of every accident occurring in their operation, supervisors must make thorough investigations that include at least the following:

- a. Interview employee(s) to determine what caused the accident, why it happened, and what the employee(s) and supervisor feel could have been done to prevent it.
- b. Promptly inspect the accident site to determine what conditions (equipment, work practice, etc.) contributed to the accident.
- c. Interview witnesses and fellow workers.
- d. Examine the most recent Form 1783, *On-the-Job Safety Review/Analysis*, for the task involved to determine if changes are required, update as needed, and review with all affected employees. If no PS Form 1783 is on file, one must be completed subsequent to the investigation.

821.3 Accident Analysis**821.31 Purpose**

Accident analysis is vital in accident prevention programs. Reports and statistical analyses are used to identify principal cause factors of accidents and hazardous conditions and serve to prompt management action to reduce or eliminate the factors and conditions.

821.32 Responsibility

All installations must develop methods to identify accident prevention program needs.

821.33 Elements

The elements of statistical analysis should include, but are not limited to:

- a. Specific tasks being performed at the time of an accident or injury.
- b. Operation, equipment, tools, and machinery involved.
- c. Specific event that resulted in an accident or injury.
- d. Nature and severity of injury.
- e. Part of body involved.
- f. Incidence and nature of the following:
 - (1) Faulty equipment or design.
 - (2) Unsafe condition.

- (3) Unsafe acts or practices.
- (4) Violation of rules, procedures, or instructions.
- (5) Inadequate training or lack of safety rules or procedures.

821.34 **Report 10, Safety and Health Subsystem, Accident Analysis Summary**

Report 10, or equivalent, is used to analyze accidents and to determine local program needs.

821.4 **Privacy Act Considerations**

Accident records, including the left side of the OSHA log and summary, contain information about individuals. As such, they may be handled and disclosed only in accordance with the Privacy Act and implementing instructions.

An individual's accident records and related correspondence are maintained within the Postal Service as the privacy system entitled Postal Service 120.035, Personnel Records — Employee Accident Records.

822 **Supplementary Actions in the Event of Serious Accidents, Including Fatalities**

822.1 **Reporting Serious Accidents**

822.11 **Installation Head Preliminary Serious Accident Report**

The installation head must report serious accidents as follows:

- a. To the performance cluster manager, any serious accident. The term *serious accident* includes:
 - (1) Any occupational accident that is fatal to one or more employees.
 - (2) Any occupational accident that results in the hospitalization of one or more employees.
 - (3) Any occupational illness or disease that results in the death of an employee.
 - (4) Any postal-related accident involving nonpostal persons that results in a fatality or the hospitalization of one or more persons.
 - (5) Any occupational accident that is not immediately reportable but that results in the death of an employee or nonpostal person within 6 months of the date of the accident.
 - (6) Any occupational injury to an employee or nonpostal person that involves mutilation, amputation (including major cartilaginous body parts such as ears, nose, etc.), or loss of vision in one or both eyes.
 - (7) Any occupational accident that involves property damage (combined postal and nonpostal) estimated to exceed \$100,000.
 - (8) Any occupational accident that results in hospitalization due to chemical exposure.

- b. *After consultation with the servicing safety office, to the nearest OSHA area office, within 8 hours, by phone, letter, or fax, the following:*

- (1) Any accident that is fatal to one or more employees.
- (2) Any accident that results in in-patient hospitalization of three or more employees.

The requirement for reporting also applies to each fatality or hospitalization of three or more employees that occurs within 30 days of an accident.

The report to OSHA should relate the circumstances of the accident, the number of fatalities, and the extent of the injuries.

- c. To the appropriate union promptly:

- (1) Any employee fatality.
- (2) Any serious industrial, noncriminal accident or injury.

822.12 **Performance Cluster Manager Report to Area and Headquarters**

The performance cluster manager must, within 8 hours, report the accident by telecommunications (FAX) to the area Human Resources manager and Headquarters Safety Performance Management. At a minimum, that postal report must include the following information concerning the accident:

- a. Post office or facility — city, state and ZIP Code.
- b. Name, title, and phone number of installation head. State whether this official is personally acquainted with the situation.
- c. Brief description of accident including:
 - (1) Date and time of accident and/or death. Make a supplementary report if a death occurs after the initial report.
 - (2) Accident location.
 - (3) Name, Social Security number, home address, title, age, sex, years of service, and extent of injuries to postal employee(s).
 - (4) Name, age, sex, address, and extent of injuries to nonpostal persons involved.
 - (5) Type of work employee was performing when the accident occurred.
 - (6) Vehicle, equipment, or property damaged (postal or nonpostal). If vehicle, state the make, model, and type. State whether seat belt was used.
 - (7) Probable cause(s) of accident.
 - (8) Police charges, if any and if known.
 - (9) Name, title, and level of supervisor on duty.

822.2 **Investigating Serious Accidents**

822.21 **OSHA Investigations**

OSHA may elect to investigate fatalities or serious accidents. If notified by OSHA that they intend to investigate such an accident, management must

contact the Headquarters General Counsel and Safety Performance Management regarding proceeding with the internal investigation and cooperating with OSHA.

822.22 **Postal Serious Accident Investigation Board**

822.221 **Mandatory Composition**

A management board appointed by the performance cluster manager must investigate job-related fatalities and other serious accidents. The board must be appointed within 24 hours of the accident and must include:

- a. One manager who has no functional relationship to the activity(ies) involved in the accident; this person will serve as chairperson.
- b. One manager from the office who has a functional relationship to the activity(ies) involved in the accident.
- c. The manager of Safety and Health, or designated safety specialist, as appropriate.
- d. One postal medical advisor appointed in consultation with the area medical director.

822.222 **Optional Composition**

One employee representative from the local safety and health committee, when requested by the appropriate union, will be permitted to accompany the board in its investigation of industrial, noncriminal accidents.

Safety Performance Management, Headquarters, may provide investigative assistance when such assistance is determined to be appropriate by the area Human Resources manager.

The vice president of Area Operations may designate, as deemed necessary, an area level representative to serve on or to provide consultation to the Board.

822.223 **Board Responsibilities**

Board responsibilities are to:

- a. Discover the causes of the accident.
- b. Make sound recommendations to prevent accident recurrence.
- c. Review the quality of action taken by supervisors where the accident occurred.

Note: Board responsibilities and actions do not relieve those immediately involved of their responsibility for accident investigation and prevention.

822.224 **Board Investigation Report**

The board uses the following report format for the board's findings and recommendations:

- a. Detailed description of accident.
 - (1) Employee's relationship (location) to physical surroundings.
 - (2) What the employee was doing when the accident occurred and how it was being done.

- b. Statements.
 - (1) Statement of employee.
 - (2) Statement of witness(es).
 - (3) Statement(s) of other person(s) interviewed.
- c. Pertinent findings.
 - (1) Whether the employee did, or failed to do, something that contributed to the accident. Include unsafe acts, violation of safety rules (such as not wearing a seat belt, see section 840, lack of knowledge, or lack of training.
 - (2) What others involved did, or failed to do, that contributed to the accident.
 - (3) The main reason behind what was done or failed to be done that contributed to the accident.
 - (4) Deficiencies and unsafe or adverse conditions in the work environment that contributed to the accident.
 - (5) If applicable, reason for the existence of the deficiencies in the work environment.
- d. Quality and type of action taken by management after the accident occurred.
 - (1) Immediate supervisor's investigation (see 821.2 for responsibilities).
 - (2) Upper level managers' actions (responsibilities include ensuring that all other employees involved in similar work are instructed, revising work procedures or practices when required, and ensuring that the board's recommendations are implemented when appropriate).
- e. Actions recommended by the board to prevent future occurrences of similar accidents.

822.225 Investigation Reporting and Response Requirements

Investigation reporting and response requirements are as follows:

- a. *Board.* Within 15 working days of appointment, the board must submit a report of its findings and recommendations to the district manager, with copies to the area vice president and the installation head.
- b. *Installation Head.* Within 10 working days after receiving the board's report, the installation head must provide a report to the district manager, with a copy to the area vice president, describing the corrective actions taken.
- c. *District.* The original copy of the investigation board report is retained at district Safety.

For fatal and catastrophic incidents only, an executive summary must be forwarded to the area Human Resources manager. The summary should include at a minimum, the date and time of the incident, the name and location of the installation, personnel information, a brief

description of the incident, causal factors, recommendations, and proposed corrective actions.

When the investigation board report of findings and recommendations indicates national impact items, a complete copy of the board report must be forwarded to the area Human Resources manager for review and consultation with any affected Headquarters departments.

- d. *Headquarters.* Upon written request of any member of the National Joint Labor-Management Safety and Health Committee, the vice president of Employee Resource Management must arrange for the release of a copy of the report to that member. However, those portions of the report prohibited from disclosure by law or regulation must not be released.

823 Program Evaluations

823.1 Purpose

The purpose of routine safety and health program evaluations is to measure the effectiveness of the Postal Service Safety and Health Program at each organizational level, ensure OSHA compliance, and promote an overall model for an effective safety and health program. A program evaluation must include compliance with and implementation of program elements included in this chapter, and other postal policy and procedural documents, including handbooks, manuals, and management instructions

823.2 Responsibilities

823.21 Headquarters

Headquarters conducts safety and health program evaluations at various organizational levels when deemed appropriate.

823.22 Areas

Areas conduct safety and health program evaluations at various organizational levels when deemed appropriate or in response to OSHA compliance activity. Vice presidents of Area Operations review performance cluster safety and health program evaluations and monitor performance. In accordance with 810, these evaluations are to be considered in evaluating individual performance of managers in the area.

823.23 Performance Clusters

Performance clusters must conduct annual safety and health program evaluations in each plant. This evaluation may be in conjunction with the inspection conducted by the district or plant safety and health staff. If a Headquarters- or area-sponsored program evaluation is conducted during the funding year, it fulfills the annual requirement. In addition, a performance cluster level program evaluation is to be conducted annually to review cluster commitment to effective program management. Evaluations are submitted to the vice president of Area Operations for review.

In all offices with 50 or more workyears, safety and health program evaluations must be conducted by district and plant safety and health staff.

823.3 **Program Evaluation Report**

A safety and health program evaluation report must be sent within 15 working days of the evaluation's completion to the installation head of the organization being evaluated, and the vice president of Area Operations. Within 30 days after receipt of the evaluation report, the installation head must address serious deficiencies in a response to the evaluators and to the area vice president.

824 **Safety and Health Inspections**

824.1 **Purpose**

The purposes of a safety and health inspection are to target specific operational, facility, or program deficiencies that may cause accidents, injuries, and illnesses, and to foster compliance with OSHA regulations and standards.

824.2 **Methods**

Safety personnel conducting inspections must be technically competent to recognize and evaluate hazards of the work environment and to suggest specific abatement procedures. They must use inspection checklists that reference current OSHA and other applicable regulations and standards and postal policies.

824.3 **Types of Inspections**

824.31 **Area Oversight and Targeted Inspections**

824.311 **Oversight**

The area Human Resources manager must ensure that safety and health inspections are conducted as required by this section.

824.312 **Area Inspections**

The area Human Resources function must conduct area inspections of plants or other installations as necessary to ensure effective safety and health programs. Inspection teams should consist of area and local safety and health personnel, maintenance, and line management.

The union representatives from the local safety and health committee may participate in inspections conducted by area safety and health personnel provided that the union represents employees at the facility being inspected. The number of union representatives will be determined by appropriate collective-bargaining agreements.

824.32 PC Offices With One Hundred Workyears or More**824.321 Requirement**

District and plant safety personnel must conduct a semiannual inspection of all installations with 100 or more workyears of employment in the regular workforce. If Headquarters or the area conducts an inspection, it serves as one semiannual inspection.

824.322 Teams

Inspection teams consist of personnel from Safety, Maintenance, In-Plant Support, and line management.

The union representatives from the local safety and health committee may participate in inspections referred to in this section, provided that the union represents employees at the installation and provided that the union representative is domiciled at the installation to be inspected. If that union representative is not domiciled at the installation to be inspected, and if that union represents employees at the installation, (a) at the union's option, representatives from the committee may participate in the inspection at no additional cost to the employer; or (b) the union may designate a representative domiciled at the installation to be inspected to participate in the inspection. The number of union representatives is determined by appropriate collective bargaining agreements.

824.33 PC Offices With Less Than One Hundred Workyears**824.331 Requirement**

Collateral duty safety personnel under the guidance of district and plant safety personnel must conduct an annual inspection of each installation (station, branch, associate office, etc.) with less than 100 workyears of employment in the regular workforce. District safety personnel also provide technical assistance and support as necessary. In addition, district safety personnel must visit smaller facilities as necessary to verify results of inspections by collateral duty safety personnel and provide assistance.

824.332 Teams

Inspection teams consist of collateral duty safety personnel and supervisors.

One union representative from the local safety and health committee, selected on a rotational basis by the unions, may participate in the annual inspection of each installation with less than 100 workyears of employment in the regular workforce where the committee exists in the installation being inspected. In those installations that do not have a safety and health committee, the inspectors afford the opportunity for a bargaining unit employee (from each union that represents employees in that installation) to accompany them during these inspections. If requested, these bargaining unit employees should be selected on a rotational basis by the various exclusive bargaining representatives in that installation. The number of union representatives is determined by appropriate collective bargaining agreements.

824.4 Conduct of the Inspections**824.41 Authority**

Postal Service safety personnel are authorized:

- a. To conduct inspections without delay.
- b. To have access to all available information relevant to the occupational safety and health of the workplace to be inspected, including Form 1767, *Report of Hazard, Unsafe Condition, or Practice*; Form 1769, *Accident Report*; Form 1772, *Accident Log*; OSHA Log; OSHA citations or other correspondence; training records; and all checklist and deficiency reports.
- c. To interview employees privately, if necessary.
- d. To consult with a reasonable number of employees during the inspection if there are no authorized representatives of employees.
- e. To deny the right of accompaniment to any person whose participation interferes with a fair and orderly inspection.

824.42 Inspection Procedures**824.421 Opening Conference**

Members of the inspection team must conduct an opening conference with the installation head and the union representatives who are to participate in the inspection. The purpose of this conference is to explain the purpose and scope of the inspection and to inform the installation head that the inspection team will, in the course of inspection, consult with employees and managers as the need occurs.

824.422 Inspection Rules

Safety inspections must be conducted according to the following rules:

- a. The responsible manager must ensure that the team, led by the senior safety professional assigned, has adequate participation and resources to accomplish a meaningful inspection.
- b. Members of inspection teams must comply with all safety and health rules at each installation including the use of protective clothing and equipment. The conduct of inspections must not result in unreasonable disruption of operations.
- c. Representatives of Maintenance, In-Plant Support, Operations, and others designated by management as appropriate, must participate.
- d. During the course of an inspection, any employee must be afforded an opportunity to bring to the attention of the inspection team any unsafe or unhealthful working condition that the employee believes exists in the workplace. In order to speak with the head of the inspection team, employees must first request permission from their immediate supervisor. Such requests must not be unreasonably denied.
- e. Safety personnel must arrange for or conduct industrial hygiene evaluations and sampling and take photographs where necessary.

824.423 Imminent Hazard Abatement

If an imminent danger is identified, the inspector must immediately inform the official in charge of the workplace. The official in charge of the workplace must undertake immediate abatement of the dangerous condition and the withdrawal of employees who are not necessary for the abatement. If the official in charge needs assistance to undertake full abatement, he or she must immediately notify, through channels, the district manager, who provides assistance for the abatement effort. The area Human Resources manager is also to be notified.

Safety and health committees and union representatives of the employees affected must be informed of all relevant actions.

824.424 Closing Conference

At the conclusion of a scheduled inspection, safety personnel must confer with the installation head and the union representative(s) who accompanied the inspection team and advise them of deficiencies disclosed by the inspection. Anyone at the conference may bring to the inspector's attention any pertinent information regarding conditions in the workplace.

824.425 Documentation and Reporting

The team leader utilizes inspection checklists and reports to record results and track abatement actions and sends the report to the installation head of the facility inspected no later than 10 working days after the completion of the closing conference. In addition, the team leader sends copies of the report to the employee representative(s) who participated in the closing conference and/or the local safety and health committee.

824.426 Notification

Immediately upon receipt of the deficiency report the installation head must post, in a prominent place where it will be readily observed by employees, a notice that the inspection has been received and is available for viewing in a convenient location, e.g., the safety office. (If feasible the entire deficiency report should be posted.) The notice must indicate, as applicable, that deficiencies were found, any special procedures that are in place, and that abatement dates have been established. The notice shall remain in place for 3 working days or until all items have been abated, whichever is longer. Copies of all inspections and reports will be maintained at the local safety office and/or district safety office in accordance with established record schedules.

824.5 Deficiency and Hazard Abatement**824.51 Hazard Classifications**

Safety hazards are classified as follows:

- a. *Imminent danger* — a situation in which there is a reasonable certainty that a danger exists that could cause death or serious physical harm immediately or before the danger can be eliminated through normal abatement procedures.

- b. *Serious danger* — a situation in which there is a substantial probability that death or serious physical harm could result.
- c. *Nonserious danger* — a situation that does have a direct relationship to job safety and health but probably would not cause death or serious physical harm.

824.52 **Hazard Abatement Committee**

Within 5 working days after receipt of the inspection report, a hazard abatement committee must be established and meet to assign priorities and specific abatement dates within the limits set by the inspection team. The installation head must chair this committee. Committee members must include:

- a. Installation head.
- b. Safety representative.
- c. Maintenance representative.

Additionally, Mail Processing, Customer Services, Industrial Engineering, Procurement, and other personnel must attend when their functional areas are involved.

824.53 **Abatement**

824.531 **Within 20 Days**

Where feasible, correct deficiencies within 20 days of receipt of the report.

824.532 **More Than 20 and Fewer Than 45 Days**

All deficiencies determined to require more than 20 days to correct must be reported immediately, along with an abatement plan, to the district manager. The abatement plan must contain the following:

- a. Name of installation.
- b. Location of unsafe condition.
- c. Description of unsafe condition.
- d. Length of time the condition has existed.
- e. Explanation of the circumstances of the delay in abatement.
- f. A management action plan (MAP) that will be used for resolution of the problem.
- g. A summary of steps being taken in the interim to protect employees from being injured by the unsafe or unhealthful working condition.

Affected employees must be informed of the provisions of the plan.

824.533 **More Than 45 Days**

All deficiencies determined to require more than 45 days to correct must be reported immediately, along with the abatement plan, through management channels to the vice president of Area Operations, with copies to the area Human Resources manager.

824.534 Changes

Once an abatement plan has been submitted, any changes in the abatement plan require the submission of a new plan in accordance with the provisions of this section.

824.535 Submission of Abatement Record

Within 5 days of abatement, a copy of the abatement record, signed by the installation head, must be sent to the safety professional in charge of the inspection.

When deficiency requires action by the General Services Administration or another federal lessor agency, the installation head must contact the lessor agency and request corrective action. This does not, however, relieve management from the obligation to protect employees.

824.54 Reinspection

The procedures for correcting a deficiency must include timely reinspection, where practicable, to determine whether the corrective action taken has proven to be effective.

Reinspection should be conducted by the same personnel (i.e., full-time or collateral duty safety personnel or maintenance personnel) who performed the original inspection. Posting of the follow-up inspection results is not required.

824.6 Investigating Employee Reports of Hazard, Unsafe Condition or Practice**824.61 Purpose of Form 1767, Report of Hazard, Unsafe Condition or Practice**

Form 1767, *Report of Hazard, Unsafe Condition, or Practice*, is designed to encourage employee participation in the Postal Service Safety and Health Program and to provide prompt action when employees report a hazard. This form provides a channel of communication between employees and management that promotes a prompt analysis and response with corrective action to reports of alleged hazards, unsafe conditions, or unsafe practices.

824.62 Availability of Form

Supervisors must maintain a supply of Forms 1767 in the workplace in a manner that provides employees with both easy and (if an employee so chooses) anonymous access.

824.63 Procedures and Responsibilities**824.631 Employee**

Any employee, or the representative of any employee, who believes that an unsafe or unhealthful condition exists in the workplace may do any or all of the following:

- a. File a report of the condition on Form 1767 with the immediate supervisor and request an inspection of the alleged condition.

- b. If the employee desires anonymity, file Form 1767 directly with the installation's safety personnel, who will immediately return the report to the employee's supervisor for necessary action. (In such cases, safety personnel must not disclose the name of the individual making the report.)
- c. Report alleged unsafe conditions to a steward, if one is available, who may then discuss the condition with the employee's supervisor.

Discrimination against an employee for reporting a safety and health hazard is unlawful.

824.632 **Supervisor**

The immediate supervisor must promptly (within the tour of duty):

- a. Investigate the alleged condition.
- b. Either initiate immediate corrective action or make appropriate recommendations.
- c. Record those actions or recommendations on Form 1767.
- d. Forward the original 1767 and one copy to the next appropriate level of management (approving official).
- e. Give the employee a copy signed by the supervisor as a receipt.
- f. Immediately forward the third copy to the safety office.

It is the supervisor's responsibility to monitor the status of the report at all times until the hazard is abated. If the hazard remains unabated longer than 7 calendar days, the supervisor must verbally inform the employee as to abatement status at the end of each 7-day interval.

824.633 **Approving Official**

The approving official must initiate action to eliminate or minimize the hazard. If this results in the submission of a work order, attach the original 1767 and forward, through channels, to the manager of Maintenance. If the approving official determines that there are no reasonable grounds to believe such a hazard exists, the employee must be so notified in writing within 15 calendar days. (Safety personnel must assist in this determination when requested.) If the hazard was abated through actions of the approving official, the employee must be so notified in writing, and the original 1767, with a statement of actions taken, must be forwarded to the safety office.

824.634 **Safety Personnel**

Safety personnel must log and sequentially number all hazard reports received on Form 1773, *Report of Hazard Log*. Safety personnel must also review all Forms 1767 for accuracy, completeness, and follow-up, as necessary. They must routinely provide status reports of 1773 logs at Executive and Joint Labor-Management Safety and Health Committee meetings.

824.635 **Maintenance**

Maintenance must notify the approving official when any Form 1767 maintenance-related work order has been completed.

824.636 Installation Head

Installation heads are responsible for responding promptly to reports of hazard and ensuring that line supervisors are diligent at correcting hazards. If it is determined on the basis of a hazard report that an imminent or serious danger exists, the installation head must take immediate corrective action.

824.637 Tenants in Postal Service Buildings

Maintenance must maintain a log of reports of unsafe or unhealthful conditions submitted by tenants of postal service buildings. Logs must include:

- a. Date of receipt of report.
- b. Building and/or specific area.
- c. Complaint.
- d. Action taken.
- e. Final resolution.

825 OSHA Inspections**Reference Note:**

For additional material concerning the subject matter found in 825, refer to:

- Handbook EL-802, *Executive's and Manager's Safety Compliance Guide*.
- OSHA publications summarized and referred to herein.

825.1 Purpose

The purpose of part 825 is to provide general guidance when compliance safety and health officers (CSHOs) or compliance safety and health officers industrial hygienists (CSHO-IHs) from the Occupational Safety and Health Administration (OSHA) conduct announced or unannounced inspections or investigations of postal facilities. All such inspectors are referred to as CSHOs in part 825.

825.2 Scope

These procedures apply to all facilities in which postal employees work. In postal-owned or -leased facilities, it is the responsibility of the Postal Service to ensure compliance with OSHA requirements. In leased facilities this responsibility continues to exist regardless of lease arrangements.

825.3 Authority

It is Postal Service policy to maintain safe and healthful working conditions and to cooperate fully with OSHA inspectors. Also, as an employer subject to private sector enforcement, it is also Postal Service policy to ensure that inspections are conducted in a reasonable manner.

825.4 Procedures**825.41 Arrival of Inspectors and Verification of Credentials**

OSHA may conduct its inspections without prior notice. CSHOs generally conduct inspections during normal working hours, but may arrive on any tour. On arrival at a postal facility, the CSHO should ask to meet with the ranking postal official. The senior postal official must meet promptly with the CSHO.

The senior postal official, or designee, is to review all CSHOs' credentials and may request verification from the OSHA area office.

Once the CSHO has presented appropriate credentials, the senior postal official is to immediately notify, via telephone or in person, the district manager and area Human Resources manager (or their designees) of OSHA's presence and the scope of the inspection and request that a safety professional come to the facility immediately for the inspection.

825.42 Consent to Entry and Cooperation

The CSHO must be informed that he or she will be permitted to enter any postal facility for inspection or investigation purposes without delay once a safety representative reaches the site or area, or once the area Human Resources manager or designee agrees that the inspection may proceed without such attendance.

The CSHO should be informed that a request for such a representative has been made, that the Postal Service position is not intended to delay or interfere with the inspection, but rather to ensure that the Postal Service participates in a professional manner, and that the presence of the representative ultimately will expedite the completion of the inspection. Postal officials are to cooperate fully with OSHA CSHOs.

If, during an inspection, the postal official determines that the CSHO may believe that a violation exists because the CSHO does not have complete information about a particular condition, subject to the advice of the safety professional, the postal official should attempt to make the CSHO aware of all relevant additional information.

825.43 Opening Conference**825.431 Initiation**

The CSHO holds an opening conference to inform the Postal Service of the purpose, scope, and conduct of the inspection. If the CSHO does not offer to conduct the conference, one should be requested.

825.432 Attendance

The opening conference must be attended by a safety professional unless the district Human Resources manager or designee says to proceed. The senior postal official attends the opening conference and may invite other postal officials from the facility, as appropriate. Employee representatives also should attend the opening conference; union representatives from the local safety and health committee should participate in accordance with 825.3 and 824.3.

825.433 Provision of Materials

The CSHO may provide copies of laws, standards, regulations, and promotional materials. The CSHO is required to furnish to the installation head any copy of an employee's report(s) of unsafe or unhealthful conditions that generated the inspection. If a complainant has asked to remain anonymous, OSHA is bound by regulations to respect that request. In such instances, the CSHO must still provide a list of the unsafe conditions alleged.

825.434 Outline of Scope

The CSHO can be expected to outline the proposed general scope of the inspection, including employee interviews, physical inspection of the workplace, records review, and the taking of photographs or samples.

825.435 Plan of Route Sequence

The CSHO should be questioned during the opening conference so that the walk-around inspection can be planned as to route sequence, notifications to production supervisors, technical support, etc. Planning of a route sequence should be considered a guideline only, as the CSHO may investigate any other apparent hazards observed in plain view en route to a particular area.

825.44 Records Review**825.441 Safety Records**

It is the policy of the Postal Service to require that the CSHO present all requests for documents in writing to the person designated by the Postal Service as the one at the facility to receive such requests during the inspection. It is also postal policy to respond as quickly as possible to such requests. The CSHO is authorized to review all records that are required to be maintained under the OSH Act. Examples of the types of records that can be reviewed include the OSHA log and summary and Form 1769, *Accident Report*, when it is used to record injuries and illnesses.

825.442 Medical Records

In certain instances, the CSHO may ask to review the medical records of some employees in order to verify compliance with the medical surveillance record-keeping requirement of an OSH standard. Access to medical records must be coordinated through the senior area medical director.

If the CSHO wishes to record or copy any medical records, a written access order in the form set forth in the OSHA *Field Information Reference Manual* (FIRM) must be provided.

825.45 Participation**825.451 Management Participation During Inspections**

The safety professional, or designee, must accompany the CSHO during the walk-around portion of the inspection.. Collateral duty safety personnel should also participate in the inspection. Representatives of Operations, In-Plant Support, and Maintenance are to be with the CSHO, whenever possible.

Management representatives, including managers and supervisors, must not sign any statements, affidavits, or notes.

825.452 Interviews of Management and Supervisory Personnel

It is the policy of the Postal Service:

- a. To cooperate with requests the CSHO may make for interviews with representatives of management, including supervisors and staff. Management should work with the CSHO to schedule such interviews so as not to interfere with mail processing. Subject to this consideration, management employees should be made available for interviews as soon as reasonably possible.
- b. To have a representative of the Postal Service present for the entire interview. The representative may be an employee from Human Resources or Safety, a counsel, or a senior official or his or her designee.
- c. Not to consent to the audio or video taping or other recording of interviews with representatives of management. The only exception is if OSHA issues an investigatory subpoena requiring a witness to appear for a formal, sworn, recorded interview. In such cases, the representative of management must be represented by counsel.
- d. Not to allow representatives of management to sign statements, affidavits, notes, or other documents prepared by OSHA during interviews.

825.453 Employee Participation During Inspections

Union representatives from the local safety and health committee must be given the opportunity, in accordance with 824.3, to accompany CSHOs during inspections.

CSHOs also may consult with other nonsupervisory employees who are not part of the inspection team and may request to interview them in private or with their union representatives during the walk-around. The CSHO may be permitted to talk with employees at their workstations for no more than 5 minutes. If further conversation is desired, the Postal Service walk-around representative should offer to make the employee available for a scheduled interview by the CSHO. Management should work with the CSHO to schedule such interviews so as not to interfere with production. Subject to this consideration, employees should be made available for interviews as soon as reasonably possible.

Employee representatives are on the clock whenever the inspection is conducted during the employee's regular work schedule. Employees are not compensated for time spent accompanying CSHOs outside of their work schedule.

825.46 Methods**825.461 Walk-Around Inspection**

There are several types of inspections (See Handbook EL-802) that may involve detailed inspection of all areas and a thorough records review.

Normally, in an inspection triggered by a complaint, the CSHO limits the inspection to the items listed in the employee's report. The scope of the inspection may, however, extend to other areas of the postal installation.

During the walk-around inspection, the CSHO examines each item mentioned in the employee's report.

The CSHO may take photographs of or videotape any conditions observed. The Postal Service must duplicate as closely as possible each photograph or videotape taken by the CSHO and should specify in the detailed notes what each photograph shows. If necessary, as a less preferred but acceptable alternative, before the inspection begins, a written agreement may be reached with the CSHO that at the conclusion of the inspection, OSHA will promptly provide the Postal Service with copies of all the photos or videotapes that it has taken of the observed conditions.

The CSHO may use measuring devices or instruments to determine compliance with the OSH Act. The safety professional or designee must record the type of instrument used and the readings obtained, and take duplicate measurements using Postal Service instruments.

The CSHO can dismiss from the inspection team, at any time, anyone interfering with the orderly conduct of the inspection. If a management representative is dismissed, the occurrence must be thoroughly documented. Another management representative must be immediately named to complete the inspection.

825.462 **Health Sampling**

In order to determine whether a violation of health standards exists, the CSHO may collect samples, including full-shift (8-hour tour) sampling. Such sampling may require the wearing of sampling devices by employees. Postal officials are to cooperate with the CSHO and are to encourage cooperation by employees.

If the CSHO desires to conduct such monitoring, the Postal Service representative must request a delay until the Postal Service brings to the site an industrial hygienist or other person qualified to perform parallel monitoring. When such requests are made, the senior postal official must immediately notify the district manager, area human resources analyst, and district Safety and Health manager by phone. Every effort is to be made for the Postal Service hygienist to reach the site as soon as possible.

When OSHA conducts health sampling, the Postal Service is to take duplicate samples and send the samples to an accredited laboratory for analysis. Proper chain-of-custody procedures established by the laboratory must be followed. Sample results must be retained locally and transmitted to the district Safety and area Human Resources.

825.47 **Immediate Correction of Imminent Dangers or Other Violations**

During an inspection, a CSHO may point out conditions that may be considered to be imminent dangers under the OSH Act. Immediate efforts are to be made to evaluate the condition. If it appears that such a danger is present, the corrections are to be made immediately, if possible, or the exposed employees removed from the zone of danger. Whenever feasible, also correct other potential violations or hazards pointed out by the CSHO during the visit.

825.48 Closing Conference

After completing the review of records, employee interviews (if necessary), and the walk-around inspection, the CSHO ordinarily will conduct an exit conference with the senior postal official and other team members. If the CSHO does not offer to conduct the conference, one should be requested. If the postal installation has a full-time safety professional, that person must also attend this closing conference. If any safety professionals have been called in from a plant or district, they must also attend the closing conference along with any collateral duty safety personnel. Employee representatives from the walk-around inspection must also attend.

During this conference, all conditions or practices that the CSHO believes may constitute a safety or health violation(s) should be reviewed. Efforts should be made to have the CSHO explain in as much detail as possible what violations he or she believes have been observed, and what citations, if any, he or she intends to recommend for issuance to the area director.

825.49 Post Conference Internal Communications

Following the closing conference, the senior postal official must immediately notify the area vice president that the inspection has been completed.

It is policy and direction of the General Counsel that following the closing conference, the installation head must prepare a memorandum for and directed to the General Counsel summarizing OSHA's findings and any other pertinent information concerning the inspection. This report is to be considered privileged and confidential as attorney-client communications and attorney-work product. The report is to be prepared and transmitted to the servicing area General Counsel within 48 hours of the closing conference. Copies of the report are to be sent only to the area Human Resources manager and the manager of Safety Performance Management at Headquarters. No other copies are to be distributed.

825.5 Citations**825.51 Issuance and Posting**

Following an inspection, if violations have been observed, OSHA may issue citations alleging violations and stating a proposed penalty and proposed abatement date (OSHA Form 2).

Upon receipt of a citation, notify area and Headquarters General Counsel and Safety Performance Management. A copy is to be faxed immediately to Safety Performance Management, Headquarters, and the vice president of Area Operations. The citations must be forwarded to the district Safety and Health manager immediately (COB that day) and entered into the national citation management tracking system by area-designated persons, who will update each entry promptly until the citation is resolved and closed.

In accord with the instructions that accompany the citations, copies of the citations are to be posted in the affected facility at the locations where important announcements are customarily posted for employees. The citations are to remain posted until they are finally resolved.

825.52 Abatement

A citation includes a proposed date by which each alleged violative condition is to be corrected. The length of the period allowed varies based on the type of hazard involved, the severity of the risk to employees, and OSHA's assessment of the difficulty of correcting the hazard.

It is the policy of the Postal Service to abate violative conditions promptly. Whether a condition constitutes a violation, and whether a proposed penalty, abatement date, and means of abatement are reasonable, however, are matters to be resolved with OSHA once the citation has been reviewed by Headquarters Safety Performance Management and the Headquarters General Counsel.

825.53 Informal Conference

To assist in determining whether to contest or resolve a citation, the installation head (in concert with the Headquarters, area, and district safety representatives) must request an informal conference with the OSHA area director who issued the citation. Informal conferences are managed by area or Headquarters Safety Performance Management, and attended by field legal counsel or Headquarters legal counsel as deemed appropriate by Headquarters.

825.54 Citation Management

Citations must be managed in accordance with instructions from the Headquarters General Counsel and Safety Performance Management, and according to procedures published in Handbook EL-802. (See Handbook EL-802 and OSHA publications therein concerning citations and required actions.)

825.6 Performance Cluster File of OSHA Inspections

The performance cluster file of OSHA inspections is the official record of OSHA compliance activity. However, the citation management tracking system must be kept current both to assist in tracking and management of citations, and provide a database of OSHA compliance activity nationally.

The district Human Resources manager, or designee, is to maintain a file on each OSHA inspection. The file is to include the following:

- a. A copy of any employee complaint letter or list of complaint items if the complainant wished to remain anonymous.
- b. Any citations (OSHA 2) and accompanying materials.
- c. The names of all CSHOs, management officials, and employees' representatives participating in the inspection.
- d. Notes and other documentation, such as photographs, made by local management.
- e. All correspondence relative to correction of hazards, abatement plans, and procedures, and documentation submitted to OSHA.
- f. Document log, if documents were provided to the CSHO.

830 Motor Vehicle and Industrial Safety

831 Motor Vehicle Safety

831.1 Objective

The objective of the Motor Vehicle Safety Program is to comply with applicable Department of Transportation regulations and to encourage safe driving to reduce the amount of property damage and human suffering caused by vehicle accidents while maintaining an efficient delivery and collection system.

831.2 Vehicle Maintenance

All installation heads having motor vehicles under their control must develop and administer controls necessary to ensure that the provisions outlined in Handbook PO-701, *Fleet Management*, are followed.

831.3 Driver Selection, Training, and Supervision

831.31 Driver Selection

Postal personnel responsible for hiring, road testing, supervising, and providing medical services must ensure that only qualified applicants are hired and/or retained for driving positions. The determination of "qualified" must be based on:

- a. Past driving record.
- b. The ability to avoid accidents, traffic violations, vehicle abuse, schedule delays, and discourtesy.
- c. Physical fitness as outlined in Handbook EL-806, *Health and Medical Service*.
- d. Requirements specified in TD 087-Course Number 43513-00.

831.32 Driver Training

Initial driver training, periodic driver improvement training, and special emphasis training must be designed and implemented to develop and maintain a professional, defensive driving workforce. (Defensive driving is defined by the National Safety Council as "driving to prevent accidents in spite of the incorrect actions of others and adverse conditions.") Such training must regularly be reinforced by the first-line supervisor. The careful selection of personnel to act as driving instructors is essential to ensure proper attitude, enthusiasm, interest, and understanding of the subject matter.

831.33 Driver Supervision

831.331 Supervisory Responsibility

Special responsibility for safe motor vehicle operations, as outlined in Handbook EL-801, *Supervisor's Safety Handbook*; Handbook PO-701, *Fleet Management*; and Handbook EL-814, *Postal Employee's Guide to Safety*, must be followed. To enforce a high standard of professional driving

performance, supervisors must complete Form 4584, *Observation of Driving Practices*, for each driver under their direct supervision at least semiannually and at other times deemed appropriate, including at 30, 60, and 80 days for probationary drivers. Supervisors must familiarize themselves with defensive driving techniques so that they know what the common driving errors are, how they can be detected, and how they can be prevented.

831.332 **Driver Responsibility**

Drivers must obey all traffic laws and postal policies, drive defensively and professionally, and extend courtesy in all situations. Specific driving responsibilities are outlined in Handbook PO-701, *Fleet Management*, in Handbook EL-801, *Supervisor's Safety Handbook*, and in Handbook EL-814, *Employee Guide to Safety*.

831.4 **Accident Analysis**

Managers and supervisors must analyze accident data to determine the hazards of vehicle operations and the primary causes of vehicle accidents and develop special action plans to reduce or eliminate them.

832 **Powered Industrial Truck Safety**

Employees authorized to operate powered industrial trucks (PITs) must be provided operator training in accordance with OSHA standard 1910.178, Powered Industrial Trucks, utilizing Course 52503, Powered Industrial Trucks Training. Before operating PITs, employees must be evaluated and certified. They must follow the operating rules and regulations outlined in Handbooks EL-801 and 814 and/or the manufacturer's operating instructions.

833 **Safety and Health in Design, Procurement, and Construction**

833.1 **Standards, Ergonomics, and Engineering**

OSHA and applicable consensus safety and health standards, ergonomic considerations, and sound safety and fire protection engineering techniques must be used to plan, build, design, construct, modify, repair, and procure new equipment, vehicles, and facilities. Consideration must be given to employee work environment, equipment, tools, supplies used, and the material on which work is performed.

Procurement, delivery, and engineering personnel must consult safety personnel to ensure that safety engineering, health protection, and ergonomic considerations are integrated into all activities of the Postal Service.

Managers responsible for procurement, design and construction are accountable for compliance with OSHA standards and applicable fire protection and building codes.

833.2 Supplemental Standards

When deemed necessary, the Postal Service may adopt more stringent, alternate, or supplemental standards. Alternate or supplemental OSHA standards must be approved by the Secretary of Labor. Safety Performance Management, Headquarters, must coordinate all such requests with the Department of Labor.

833.3 Contractor Safety

Installation heads, procurement, contracting officers, and other managers are responsible and accountable for ensuring that all contractors working on postal property follow OSHA regulations and postal safety and health policies. All contractors must conform to OSHA regulations, and a postal representative is to be assigned to monitor contractor activities as appropriate, including coordinating with contractor safety “competent persons” and/or safety representatives. Bidding criteria must include a contractor’s safety and health record, written programs, training, and OSHA compliance activity as appropriate to the scope of the contracted work.

840 Safety Awareness Programs

841 Program Promotion

841.1 Objectives

The purpose of the Safety Awareness Program is to promote interest, increase safety awareness, and gain acceptance of safe work practices. The aim is to secure maximum employee participation through the effective use of media and individual or group recognition. The cooperation of the local safety and health committee in the promotion of safety is to be encouraged.

841.2 Local Needs

Effective promotional programs must be based on a thorough study of local needs. Accurate planning and analysis are essential to achieve program objectives.

841.3 Media

Districts, plants, and other installations should procure or develop and distribute posters, publications, films, bulletins, pamphlets, newsletters, displays, etc., based on current and projected accident trends. The display of safety posters distributed by Headquarters must be kept current. Budgeting for safety promotional needs must be included in program planning.

842 National Safety Awards and Contests

842.1 Participation

All eligible installations must participate in the National Safety Council's Safe Driver Award Program. Additionally, all eligible installations should participate in:

- a. The National Safety Council's National Fleet Safety Contest.
- b. The National Safety Council's Injury Prevention Contest

842.2 Safe Driver Award Program

842.21 Recognition

The National Safety Council Safe Driver Award is the recognized trademark of professional drivers who have proved their skill in avoiding traffic accidents.

842.22 Performance

The award plan is more than a means of rewarding drivers with good safety records. The guidelines in the National Safety Council Safe Driver Award Rules establish what is expected of professional drivers in the way of safety performance: the ability to operate a motor vehicle without having a preventable (by National Safety Council definition) accident.

These guidelines constitute a yardstick by which drivers can measure their own performance and by which supervisors can measure the performance of individual drivers. When this standard of performance is clearly understood by both drivers and supervisors, it becomes a logical, fair, and workable basis for effective safety supervision. These rules are not intended as the yardstick of disciplinary action.

842.23 **Participation**

Postal installations having one or more postal employees operating postal-owned, hired, leased, contract, or private vehicles in conducting postal business must participate in the Safe Driver Award Program. All postal personnel operating motor vehicles on official business are eligible to participate in the Safe Driver Award Program under the rules for administering the National Safety Council's Safe Driver Award Plan (Postal Service edition). Contractors, contract personnel, supervisors, and personnel who drive sporadically or only during seasonal periods, holidays, vacations, etc., are excluded.

842.24 **Preventability**

After a vehicle accident, a determination must be made by a designated postal official or the Safe Driver Award Committee as to whether the accident was considered preventable for the purpose of evaluating eligibility for the National Safety Council Safe Driver Award.

842.25 **Safe Driver Award Rules**

For details on administering the National Safety Council's Safe Driver Award Program, see the latest Postal Service version of Safe Driver Award Rules.

842.26 **Privacy Act Considerations**

Safe driver award records contain information about individuals. As such, they may be handled and disclosed only in accordance with the Privacy Act and its implementing instructions. An individual's award records and related correspondence are maintained within the Postal Service as the privacy system entitled USPS 120.170, Personnel Records — Safe Driver Award Records.

843 **Safety Incentive Programs**

843.1 **Concept**

Safe working conditions and appropriate safety equipment are not always enough to prevent on-the-job injuries. Effective safety programs also need employee participation, team effort, and sustained safety consciousness. Safety incentive programs can motivate employee involvement and safety consciousness through awards or contests that incorporate the use of recognition and rewards. Incentive programs must not be used to encourage nonreporting of accidents, injuries, or illness. Individual safety contests, awards, and incentive programs must be approved before implementation, in accordance with 620, Contests.

843.2 Selected Programs

Increased safety incentive may be accomplished with programs that recognize driver-of-the-month or -year, safety-captain-of-the-month or -year, best safety slogan, fewest violations during safety inspections, demonstrated safety consciousness, best accident record, million-mile awards, etc. Creative development of new and interesting programs designed to capture and stimulate interest should be encouraged. Sharing of ideas through cooperative exchange with other agencies or local private industry is encouraged.

843.3 Administration

The installation head or designee conducts, controls, and is responsible for approved driver and industrial safety incentive programs (see 620 for implementation procedures).

843.4 Presentation Ceremonies

Installation heads must provide publicity and an appropriate ceremony for each incentive award.

844 Seatbelt Use Incentive**844.1 Policy**

\$10,000 will be paid to the estate of any postal employee who, while in a pay-duty status, sustains fatal injuries as the result of a job-related motor vehicle accident, provided he or she is wearing seat belts and is not in violation of the traffic laws at the time of the accident.

844.2 Determination

It is the responsibility of the investigation board, as described in 823.4, to determine and document whether or not an employee was wearing a seat belt at the time of the accident and that no traffic law was being violated by the postal driver. Such determinations are based on, but not limited to, postal and/or police accident investigative reports, autopsy reports, and/or interviews with witnesses, ambulance attendants, police, or attending medical and hospital personnel. For purposes of this incentive program, where a determination and documentation cannot be made or is conflicting, it will be assumed that the employee was wearing a seat belt and was in compliance with the law.

844.3 Payment

Upon receipt of the board's final investigative report, the area vice president notifies the area Human Resources manager, via memorandum, that payment should be made to the employee's estate. Included with the memorandum is a copy of the board's investigative report summary. The area Human Resources manager requests payment from the Eagan Accounting Service Center and transmits the check to the division manager for

844.3

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disbursement to the employee's estate. A copy of the request for payment is to be forwarded to Safety Performance Management, Headquarters, and is part of the serious accident file.

850 Emergency Action Plans and Fire Prevention and Control

851 General Responsibilities

851.1 Installation Heads

Installation heads are responsible for implementing emergency action plans and a fire safety program for the protection of people, mail, and postal property. This program must include (but is not limited to) training, education, inspection, enforcement, drills, emergency evacuation teams, written emergency action plans, written standard operating procedures for hazardous materials spills and leaks, and fire prevention plans as required in this subchapter and in accordance with 29 CFR 1910, Subpart L.

851.2 Managers

Managers and supervisors must be constantly on the alert for fire hazards or other emergency situations and take immediate corrective action for any unsafe practice or condition. If immediate corrective measures are beyond their capabilities, managers must take short-term precautions to ensure the safety of employees and the protection of the workplace. Conditions that cannot be corrected immediately must be reported to a higher authority for corrective action. Managers must ensure that marked aisles and exits are maintained and clear and that all employees are trained in the evacuation and emergency procedures of the installation, including building emergency alarm systems. Supervisors or managers are responsible for ensuring that personal protective equipment is available to employees who respond to spills and breakage of hazardous materials.

852 Emergency Action Plan

852.1 Responsibility

Each postal facility having more than 10 employees on the rolls must maintain an emergency action plan in writing. If there are 10 or fewer employees, the plan may be communicated verbally. Safety personnel may provide advice and technical assistance, where needed, in the development of such plans. The plan must include designated actions that management and employees are to take to ensure the safety of employees and the protection of property from fire and other emergencies, e.g., hazardous materials (hazmat) spills. (See Management Instruction EL-810-96-1, *Hazardous Materials and Emergency Response*, for establishment of standard operating procedures for spills and leaks and the relationship to Emergency Action Plans.)

852.2 Content

Include the following elements, as a minimum, in the emergency action plan:

- a. Emergency escape procedures, graphic illustrations of emergency escape route assignments, and location of fire alarms and extinguishers.
- b. Specific procedures to be followed by employees who remain to operate or shut down critical building systems before they evacuate.
- c. Procedures to account for all employees after emergency evacuation has been completed.
- d. Details of any special assignments.
- e. The preferred means of reporting fires and other emergencies based on local procedures and requirements.
- f. Names or regular job titles of persons or departments who can be contacted for further information or explanation of duties under the plan.

852.3 Posting

Post parts (a) and (f) of this plan in a prominent location

853 Emergency Evacuation Teams and Drills**853.1 Emergency Evacuation Teams****853.11 Organization**

In installations having 10,000 square feet or more, an emergency evacuation team (EET) of postal employees must be maintained on each work tour. EETs may be maintained in smaller installations when warranted by the type of operations conducted. All postal installations having an organized EET must prepare and maintain a written policy statement that establishes the existence of the EET; its basic organizational structure; the type, amount, and frequency of training to be provided EET members; the expected number of members in the EET; and the functions that the EET is to perform at the facility. This statement may be a part of the fire prevention plan.

853.12 Size

The size of the EET depends on the amount of fire-extinguishing and control equipment, the number of exits, and the number of employees on duty. A prearranged schedule must be developed to ensure the availability of the EET.

853.13 Duties of EETs

The organizational statement must clearly indicate that at no time will postal EETs stand and fight any fire beyond the incipient stage, or respond to hazardous materials emergencies. For Postal Service purposes, an incipient fire is one in the initial or beginning stages that can be controlled, contained, or extinguished by portable fire extinguishers without the need for personal

protective clothing or self-contained breathing apparatus (SCBA). The use of SCBA requires a higher level of skill and training not usually expected of postal employees. Other duties of the EETs include, but are not limited to:

- a. Stopping conveyor belts.
- b. Closing doors to rooms and covers at dump holes and conveyor openings.
- c. Directing the fire department to location of fire.
- d. Evacuating injured and handicapped personnel.
- e. Inspecting the fire site with the fire department to determine that the fire is completely extinguished and that no possibility of rekindling exists.
- f. Moving vans from loading docks.
- g. Shutting down all electrical power to the building or sections as directed by the municipal fire department.
- h. Maintaining perimeter security to prevent reentry until officially instructed to permit it.
- i. Assisting the fire department in maintaining crowd control.

853.14 **Membership**

Building maintenance employees and security personnel should form the nucleus of the EET. Additional personnel may be assigned to assure adequate coverage on all tours. The assigned members are:

- a. *EET Leader.* The installation head is responsible for appointing the EET leader, who should normally be the superintendent for building maintenance or someone in a similar position. The EET leader must establish a procedure to provide quarterly review of the program to ensure operational efficiency.
- b. *Assistant EET Leader.* The EET leader appoints an assistant EET leader.
- c. *EET Members.* *EET members are appointed as needed to cover all tours, with an alternate for each member. The alternate should have different off days than the regular member. The EET leader ensures that all persons selected as members of the EET are physically capable of performing the duties that may be assigned to them during training or actual emergencies. Employees with known heart disease, epilepsy, or chronic obstructive pulmonary diseases must not be permitted to participate in any EET activity unless they present a certificate of fitness from their personal physician stating that they are physically capable of performing such duties. Employees with physical disabilities are permitted to be EET members; however, their job assignments must be governed by their ability to perform specific tasks.*

853.15 **Training**

Members are required to complete an initial basic level of training and quarterly programs of refresher training. Such training and education must be provided to members and alternates before they are expected to perform any EET emergency evacuation team activity. Safety and fire department

personnel should assist in the establishment and training of the EET. EET leaders and training instructors must be provided training and education that is more comprehensive than that provided to the general membership of the EET. Such training is available from state fire-fighting academies and local fire departments. Training for all members must be on the clock and must cover:

- a. Teamwork coordination.
- b. Specific EET duties for each member and alternate.
- c. Familiarization with all fire-extinguishing equipment.
- d. Fire alarm systems and fire and other emergency reporting.
- e. Classifications of fires and the equipment used on each.
- f. Stopping fire along conveyor belts and between work levels.
- g. First aid and rescue procedures.
- h. Conducting EET drills. (EET drills must be conducted at least annually to assure efficiency.)
- i. The facility Hazmat SOP (First Responder Awareness Level).

853.16 **Exposure**

At no time should EET members or alternates perform a task that exceeds their level of skill, ability, or training or expose themselves or other employees to unnecessary dangers and risks, including hazardous materials emergencies.

853.17 **Special Hazards**

The EET leader must inform EET members and alternates about special hazards such as storage and use of flammable liquids and gases, toxic chemicals, radioactive sources, and water reactive substances to which they may be exposed during fire or other emergencies. The EET members also must be advised of any changes that occur in relation to the special hazards. The EET leader must develop and make available for inspection by EET members written procedures that describe the actions to be taken in situations involving the special hazards and must include these in the training and education program (see facility written hazard communication program).

853.18 **Installations Without EETs**

In installations that do not have EETs, the installation head is responsible for ensuring that supervisors or employees are assigned the following functions in case of fire or other emergency:

- a. Notification of fire department, police, ambulance, or other emergency services.
- b. Prompt evacuation of personnel including injured or handicapped employees.
- c. Security of mail, monies, receipts, and accountable and valuable papers.
- d. Use of fire extinguishers.

853.2 Drills

At least one emergency evacuation must be conducted annually on each work tour. The importance of fire drill training must be impressed upon all postal employees. In conducting fire drills, the following objectives must be met:

- a. Sounding of alarms and prompt notification of fire department, police or other emergency services.
- b. Orderly evacuation in minimum time.
- c. Security of mail, monies, receipts, and valuable papers.
- d. Emergency plan assignments by designated EET members and alternates.

854 Fire Prevention Plan**854.1 Responsibility**

Each installation head managing a postal facility with more than 10,000 square feet must maintain a written fire prevention plan. Installation heads managing smaller facilities may maintain written fire prevention plans when warranted by the type of operations conducted. Safety personnel may provide advice and technical assistance, where needed, in the development of such plans.

854.2 Content

Include the following elements, as a minimum, in the fire prevention plan:

- a. A list of the significant, potential workplace fire hazards; handling, storage, and control procedures; potential ignition sources (such as welding, electrical equipment, and heaters); and the type of fire protection equipment or system present that can contain, extinguish, or control fires.
- b. Names or regular job titles of personnel responsible for maintenance of equipment installed to prevent or control fires.
- c. Names or regular job titles of personnel responsible for control of fuel-source hazards.
- d. Procedures to be used to control the accumulation of flammable and combustible waste materials and waste residues so that they do not contribute to a fire emergency.

854.3 Employee Training**854.31 General**

Employees must be instructed at least annually, and any time there is a change in the plan or their role, by their immediate supervisor in:

- a. The evacuation and emergency procedures of the installation.
- b. The use of fire-extinguishing equipment. Employees whose work station is in, or adjacent to, high-hazard operations must be trained in

the use of appropriate fire-extinguishing equipment for that specific operation.

- c. Good housekeeping practices.
- d. The observance of smoking rules.
- e. Hazmat SOPs using Handbook EL-812, *Hazardous Materials and Spill Response*.

854.32 **Training for the Emergency Action Plan and Fire Prevention Plan**

854.321 **Emergency Action Plan**

To maintain the emergency action plan, a sufficient number of employees must be designated and trained to assist in the execution of a safe and orderly emergency evacuation, and dealing with incidental and emergency releases of hazardous materials in the mails and elsewhere. See MI EL-810-96-1, *Response to Hazardous Materials Releases*. This pool of employees must be kept current.

854.322 **Fire Prevention Plan**

To maintain the fire prevention plan, the immediate supervisor must inform all employees of the fire hazards in the work area to which they may be exposed.

854.323 **Orientation**

The immediate supervisor must orient all newly assigned employees to those parts of the plans that the employees must know to protect themselves in the event of an emergency.

854.324 **Review**

The written plans must be kept at the workplace and be made available for employee review. The emergency action and fire prevention plans must be reviewed with each employee of the installation:

- a. Annually.
- b. Whenever there is a change in employee responsibilities or designated actions under the plans.
- c. Whenever the plans are revised.

855 **Fire Inspections**

855.1 **Responsibility**

Quarterly fire inspections must be conducted in all postal-owned and postal-leased installations. Managers and supervisors that have been trained by safety and/or fire protection personnel must conduct these inspections. Training must include the conduct of inspections, identification of unsafe practices causing fires, and the methods of eliminating or correcting hazards. The installation head is encouraged to seek assistance from local fire officials and permit them to conduct fire inspections and prefire planning programs.

855.2 Procedures

Fire inspections may be scheduled to coincide with semiannual or annual safety inspections. They must be documented using checklists provided by district, plant, or collateral duty safety personnel.

855.3 Corrective Action

Deficiencies identified in safety checklists must be reviewed by the hazard abatement committee and corrected.

Local authorities must be notified immediately upon discovery of fire hazards that are not under postal jurisdiction, but that affect postal personnel, mail, or property

856 Alarm Systems and Extinguishers

856.1 Alarm Systems

Every postal facility must have an established employee alarm system that complies with OSHA Standard 29 CFR 1910.165 and that includes:

- a. Procedures for informing each employee of the preferred means of reporting emergencies, such as manual pull-box alarms, horns, public address systems, radio, or telephones. The installation head must have emergency telephone numbers posted near telephones, on employee bulletin boards, and at other conspicuous locations where telephones serve as a means of reporting emergencies. Where a communication system also serves as the employee alarm system, all emergency messages must have priority over all nonemergency messages.
- b. Procedures for sounding emergency alarms in the workplace. For those installations with ten or fewer employees in a particular workplace, direct voice communication is an acceptable procedure for sounding the alarm provided all employees can hear the alarm. Such workplaces need not have a backup system. An alarm device must:
 - (1) Give a warning that provides sufficient reaction time for safe escape of employees from the workplace, or the immediate work area, or both.
 - (2) Have the capability of being heard or seen above ambient noise or light levels by all employees in the affected areas of the workplace. Tactile devices may be used to alert employees who would not be able to recognize the audible or visual alarms.
 - (3) Give a distinctive and recognizable signal to evacuate the work area or to perform actions designated under the emergency action plan. If the employee alarm system is also used for alerting emergency evacuation team members or for other purposes, a distinctive signal for each purpose must be used.
- c. Procedures for maintenance and testing of employee alarm systems in compliance with appropriate NFPA and OSHA standards.

856.2 Extinguisher

The number, type, location, maintenance, and inspection of fire-extinguisher equipment and systems must be in accordance with Handbook MS-56, *Fire Prevention and Control*, and 29 CFR 1910.157-1910.163 as required.

Exception: The maximum travel distance to any portable fire extinguisher must not exceed 50 feet

Fire-fighting equipment that is in damaged or unserviceable condition must be removed from service and replaced immediately.

857 Vehicle Protection

Fire extinguishers and emergency warning kits are to be placed in vehicles in accordance with Handbook PO-701.

858 Codes, Standards, and Ordinances

Compliance with Postal Service standards, OSHA standards, National Fire Protection Codes (NFPA), National Building Codes, and state and local fire codes is required. Managers must refer matters concerning fire prevention, extinguishment, and control, which are not covered by municipal or other regulations, to higher authority for resolution.

860 Medical and Occupational Health Services

861 Scope

861.1 Program Overview

The U.S. Postal Service is committed to a comprehensive National Medical and Occupational Health Program consisting of administrative functions, wellness initiatives, and other medically related activities designed to address the health and safety of employees in the workplace.

861.2 Mission

The mission of the National Medical and Occupational Health Program is to reinforce the relationship between health, productivity, and the achievement of the Postal Service's business goals. This is accomplished through the development of quality programs and policies designed to promote and maintain employee health and to help ensure a safe, healthful work environment.

The program's services include but are not limited to the following activities:

- a. Providing preventive medical programs in health counseling, education, and training.
- b. Managing the care of acutely ill or injured employees.
- c. Determining medical ability of applicants and employees to perform the functions of the job.
- d. Managing applicant and employee drug and alcohol testing programs.
- e. Managing compliance with the regulatory requirements of the Department of Transportation, Office of Worker's Compensation Programs, Occupational Safety and Health Administration, and other entities for which program compliance is required.
- f. Managing the medical records of applicants and employees.
- g. Providing recommendations regarding physical capabilities, limitations, accommodation, and rehabilitation of disabled employees or applicants.
- h. Providing immunization services and participating in community health programs such as blood pressure, glaucoma, and diabetes assessments and blood bank programs.
- i. Assisting in the prevention of job-related injuries and illness.
- j. Collecting and analyzing epidemiologic data to detect statistical trends in occupational illness or injury.

861.3 Approach

The National Medical and Occupational Health Program presents a uniform approach throughout the Postal Service with respect to occupational health services and health-related activities.

862 Policies**862.1 General Policy**

It is the policy of the Postal Service to provide and maintain work environments that are conducive to and promote the good health and safety of all employees. To furnish the highest quality medical treatment for employees, many postal facilities have on-site health services offices staffed by postal occupational health nurses. These facilities, as well as facilities without on-site health services offices, are further supported by community-based contract medical facilities and providers.

862.2 Medical and Occupational Health Program Facilities**862.21 District Administrative Office**

A Medical and Occupational Health Program administrative office is an office staffed with one or more occupational health nurse administrators and support staff as needed. The role of this office is to administer the Medical and Occupational Health Program at the district level.

862.22 District Health Services Office

A Medical and Occupational Health Program health services office is a service office in a postal facility staffed with one or more career postal occupational health nurses who provide medical and medically related services within that facility. This office is managed by the occupational health nurse administrator who also has the responsibility for administering the National Medical and Occupational Health Program for the district.

862.23 Area Administrative Office

The Medical and Occupational Health Program area administrative office is responsible for the administration of the Medical and Occupational Health Program for the area. The office consists of the senior area medical director, the associate area medical directors, the area occupational health nurse administrator, and support staff.

863 Staffing and Functional Responsibilities**863.1 General**

Senior and associate area medical directors and area and district occupational health nurse administrators implement and manage the Medical and Occupational Health Program and are responsible for ensuring the highest level of service performance and for ensuring adequate medical staffing within their respective locales.

863.2 Staffing**863.21 General**

The Postal Service medical staffing consists of a national medical director, senior area medical directors, associate area medical directors, area and

district occupational health nurse administrators, staff occupational health nurses, and community-based contract medical facilities, physicians, nurses, and consultants (see Handbook EL-311, *Personnel Operations*, Chapter 3).

863.22 **Qualifications**

All physicians must have a current, unlimited license to practice medicine in a state, the District of Columbia, the Commonwealth of Puerto Rico, or a territory of the United States. All nurses must have a current registered nurse (RN) certification and certification in cardio-pulmonary resuscitation (CPR). The full description of qualifications and requirements is found in the standard position descriptions.

863.3 **Administrative and Functional Responsibilities**

863.31 **National Medical Director**

The national medical director:

- a. Plans and develops policy for the National Medical and Occupational Health program.
- b. Provides guidance to the area Human Resources managers and area medical directors.
- c. Evaluates the performance of all aspects of the National Medical and Occupational Health Program.

The national medical director is administratively responsible to the manager of Health and Resource Management.

863.32 **Area Medical Directors**

Senior area medical directors and associate area medical directors provide functional guidance in matters of policy and program requirements to district medical personnel and to postal management. They are also responsible for management of complex cases and issues.

863.33 **Postal Physicians**

863.331 **Duty Assignments**

Full-time and part-time postal physicians' work must be performed on postal premises and under the direction of the Postal Service.

863.332 **Work Schedules**

As specified in 661.42, "An employee may not engage in outside employment or other activity which will interfere with the duties and responsibilities of Postal Service employment...." Work schedule requirements are as follows:

- a. Full-time postal physicians or medical directors are usually scheduled to work a minimum of 8 hours per day, 5 days per week.
- b. Part-time postal physicians or medical directors are usually scheduled to work a minimum of 20 hours per week. Except for occasional changes in the workload, this minimum should be observed. Consideration should be given by local management to the use of contract physician services if their requirements are generally less than

20 hours per week. Management and the part-time postal physician should establish a mutually agreeable work schedule.

863.333 Duties

Postal physicians perform the following duties:

- a. Manage professional medical and medically related services in the health services office.
- b. Provide treatment of employees who have been injured or who have become ill.
- c. Conduct physical examinations and review examinations performed by other physicians outside the Postal Service.
- d. In conjunction with the area medical director, issue standing orders for all the health services office nursing staff within their area of responsibility.
- e. Visit all health services offices in their assigned area at least every 3 months.
- f. Establish and act as custodian for all employee medical records within their area of responsibility.
- g. Make rounds on the workroom floor at regular intervals and evaluate working conditions to identify and recommend solutions to potential health and safety problems.
- h. Monitor the medical status of employees returned to duty through the rehabilitation program at intervals of 2 to 4 weeks or as indicated.
- i. Review all serious job-related injuries and fatalities to help determine if the employee's medical condition contributed to the injury or fatality (see 822.221).
- j. Work with the Human Resources staff and coordinate medical activity with safety and injury compensation staffs.
- k. Participate in management meetings, particularly those related to health, safety, and injury compensation.
- l. Serve as consultant or expert witness in administrative appeal proceedings, as required.
- m. In conjunction with an occupational health nurse administrator, medically assess reconsiderations of nonveterans and CPS disabled (30 percent or more) veterans' appeals.

863.34 Contract Physicians

Currently licensed physicians, under agreement with the Postal Service, are designated to perform specified medical services on a fee-for-service basis:

- a. Where there is no coverage by a postal physician.
- b. Where the postal physician is on leave.

863.35 **Occupational Health Nurse Administrators**

The occupational health nurse administrators are responsible for the administration of the National Medical and Occupational Health Program within their assigned locales. The duties include but are not limited to:

- a. Providing administrative and policy guidance to local management.
- b. Managing all aspects of health services office activity, including supervision of the staff occupational health nurses.
- c. Designing and implementing programs of preventive health education.
- d. Managing medical contract services and monitoring the quality of work provided by the contractors.
- e. Providing guidance to injury compensation specialists in work-related injury cases.
- f. Ensuring that resources are available for obtaining emergency medical care.
- g. Serving as medical record custodian for assigned locales.
- h. Generating qualitative and quantitative statistics and data.
- i. Providing statistical analysis of data relating to all elements of the National Medical and Occupational Health Program.
- j. Ensuring compliance with the regulatory requirements of the Department of Transportation, Office of Worker's Compensation Programs, Occupational Safety and Health Administration, and other entities for which program compliance is required.
- k. Providing emergency care as needed.

863.36 **Health Services Office Staff Nurses**

Health services office occupational health nurses are functionally and administratively responsible to the district occupational health nurse administrator and to the district Human Resources manager. The duties of the occupational health nurses include but are not limited to:

- a. Providing professional nursing care to employees.
- b. Administering medications at the direction of a physician.
- c. Assisting postal physician in conducting examinations.
- d. Maintaining medical records.
- e. Counseling and referring employees to health-related programs.

(See Handbook EL-806, *Health and Medical Service*, and the standard position description for additional functional responsibilities and duties.)

864 **Medical Assessments and Examinations**

864.1 **Applicant Medical Assessments and Employee Examinations**

It is mandatory that all applicants for career, temporary, or casual employment undergo a medical assessment before job placement.

Employees who are converted to positions with different physical requirements than their present positions must first undergo medical assessments that may include the performance of a focused physical examination addressing those particular physical requirements. (See Handbook EL-311, Chapter 3, for exceptions and scheduling procedures.)

Postal or contract physicians perform applicant examinations, when indicated, at a Postal Service health services office within reasonable commuting distance from the applicant's home or at the postal installation where employment is sought.

864.2 **Determination of Suitability**

See Handbook EL-311, Chapter 3.

864.3 **Fitness for Duty**

See the corresponding management instruction for the specific procedures for fitness-for-duty examinations.

864.31 **Purpose**

The purpose of the Postal Service fitness-for-duty examination is to ascertain whether or not the employee is medically capable of meeting the requirements of his or her job.

864.32 **Requesting Examination**

Management can order fitness-for-duty examinations at any time and repeat them, as necessary, to safeguard the employee or coworker. Specific reasons for the fitness-for-duty should be stated by the requesting official.

In cases of occupational injury or illness, the district injury compensation control office may request an examination in the course of monitoring an injury compensation case (see 545.44).

864.33 **Tests and Consultation**

A specific medical test or consultation may be required in the judgment of the examining physician before rendering a decision on fitness for duty. The indications are documented as part of the report.

865 **Return to Duty After Extended Illness or Injury**

865.1 **Certification After 21 Days**

Employees returning to duty after 21 days or more of absence due to illness or injury must submit medical documentation of their ability to return to work, with or without limitations. The occupational health nurse administrator or postal physician evaluates the medical report and, when required, assists in placing employees in jobs where they can perform effectively and safely.

865.2 Other Required Certification

Employees returning to duty after an absence for communicable or contagious diseases, mental and nervous conditions, diabetes, cardiovascular diseases, or seizure disorders or following hospitalization must submit a physician's statement doing one of the following:

- a. Stating unequivocally that the employee is fit for full duties without hazard to him- or herself or others.
- b. Indicating the restrictions that should be considered for accommodation before return to duty.

Requests for restricted duty are reviewed by postal medical personnel and postal management to consider the availability of accommodated work assignments.

865.3 Contents of Certification

All medical certifications must be detailed medical documentation and not simply a statement of ability to return to work. There must be sufficient information to make a determination that the employee can return to work without hazard to self or others.

In instances of hospitalization for mental or nervous conditions, the attending physician's certificate must also state that the employee has been officially discharged from the hospital.

In diabetes and seizure disorder cases, the certificate must state that the condition is under adequate control and describe the method of treatment used to ensure that control. The occupational health nurse administrator, postal physician, or contract medical provider makes the final medical determination of suitability for return to duty and/or the need for light or limited duty assignment.

865.4 Assignments

Installation heads have the authority to assign any employee returning to duty to an environment away from situations that may have a direct bearing on the conditions that caused the inability to work. They also have the authority to provide useful work for the returning employee during a rehabilitation period, but must be guided by the terms of any applicable collective bargaining agreement.

865.5 Questionable Conditions**865.51 Inability to Perform Duties**

Employees who are unable to perform their duties because of disability, occupational injury, nonoccupational injury, or illness, and who have less than the 5 years service requirement for disability retirement, may be requested to have a fitness-for-duty examination by a postal or contract physician. If the fitness-for-duty examination corroborates that the person is unable to perform the duties of the position, he or she may be subject to separation.

865.52 Employee Claim of Inability to Perform Duties

If the employee claims inability to perform the full duties of the position, the postal installation head must not insist that the employee has to perform such duties without corroborative medical evidence. The installation head may refer the employee for a fitness-for-duty examination.

866 Medical Emergencies

See also Handbook EL-806, *Health and Medical Service*, Chapter 1.

866.1 Requirement

All health services offices must be prepared to respond to emergencies and to provide medical assistance as required.

866.2 Emergency Procedures

The recommended procedures for handling medical emergencies on postal premises are as follows:

- a. Notify the health services office.
- b. Notify security or other designee, who calls 911.
- c. Evaluate (nurse or doctor) to determine severity of injury or illness.
- d. Provide necessary first aid treatment.
- e. Notify postmaster, personnel officer, or senior official in charge.
- f. Transport the employee to hospital by most appropriate means if required.
- g. In non-work-related cases, consult the employee's physician after control of the emergency and before any other arrangements are made. If the physician is not available, transport the employee to the nearest hospital or hospital of choice.

866.3 Posting Emergency Procedures

Instructions to be followed in an emergency must be posted in health services offices and on bulletin boards at appropriate places throughout the facility.

867 Rehabilitation After Work-Related Injury or Illness

Through coordination with the injury compensation program, every effort must be made to return the employee with a work-related injury to duty by:

- a. Assessing the physical ability of an employee so that the employee can return to the workforce as a productive individual.
- b. Recommending assignments in which the pace and physical requirements minimize risk of reinjury.
- c. Consulting with the treating physician's professional medical staff to monitor, at regular intervals, the capabilities of employees with work-related injury or illness.

- d. Consulting when necessary with the appropriate specialists to resolve differences of opinion between the treating physician and the postal physician.

868 General Procedures

868.1 Agreements

868.11 Special

The national medical director is responsible for the medical specifications of contracts requiring periodic physical examinations for a special category of employees (e.g., PCES, postal inspectors) as required by management.

868.12 Medical Surveillance and Surveys

Exposure to toxic substances is identified and quantified by the district Human Resources manager, Safety, or senior safety specialist. The district occupational health nurse administrator or area medical director negotiates the surveillance. Such surveys must be coordinated with the senior area medical director. The district Human Resources manager implements appropriate action and notifies the area Human Resources manager.

868.13 Contract Medical Agreement

868.131 Initiating Medical Agreements

The following are the procedures for initiating medical agreements with contract physicians, clinics, or other health care providers:

- a. The district occupational health nurse administrator or area medical director recommends and renews all agreements using Form 7314, *Medical Agreement*.
- b. Management review of the contract is conducted by the district Human Resources manager. The area medical director approves the agreement as the contracting officer.
- c. A copy of the contract is kept by the district occupational health nurse administrator and area medical director, and copies are furnished to the contractor and to the district Human Resources manager.

Note: Part-time nurses who are covered under the USPS-NPPN Agreement must not be confused with nurses who are contracted using Form 7314. Contracts for nursing services must not violate provisions of the USPS-NPPN Agreement, Article 7.02. Medical services for on-the-job injuries or illnesses must comply with the provisions in ELM 543. Medical services for customer-related accidents must comply with Handbook M-19, *Accident Investigation — Tort Claims*, 253.2.

868.132 Certification for Payment of Invoices

As invoices are received for contracted services, the district occupational health nurse administrator or area medical director or designee executes the following procedures before submitting invoices for payment processing:

- a. Verify that the specific services have been rendered and that the invoices are accurate.

- b. Review invoices to detect any inconsistencies such as double-billing (billing twice for the same service on separate invoices).
- c. Certify invoices by either stamping, typing, or handwriting on each *original invoice* the following information: (1) signature and title of the certifying official, (2) name of postal facility, (3) finance number, and (4) date that the services were rendered. A sample stamp reads: "I certify that the goods or services have been received and the invoice is correct and proper for payment."

868.133 **Payment — Statement of Account Offices**

The payment procedures are as follows:

- a. Forward certified invoices to the installation finance office for payment in accordance with local procedures and recording on Form 1555, *Statement of Account* (SOA).
- b. Forward copies of paid invoices to the district occupational health nurse administrator or designees for their files.
- c. Record payment for non-job-related medical services (such as routine medical examinations, nursing services, and first aid treatment that is not related to an on-the-job injury or illness) on the SOA using AIC 578.
- d. Record payment for job-related medical services (such as office visits, X-rays, lab work, pharmaceutical bills, and fitness-for-duty examinations that are required because of an on-the-job injury or illness) on the SOA using AIC 577.
- e. Note that payment for medical services for *customers involved in accidents* on or with Postal Service property is made only for the initial visit and record these payments on the SOA using AIC 597.

868.134 **Payment — Non-Statement of Account Offices**

For those postal installations that do not have a Statement of Account, the following payment procedures apply:

- a. Forward certified invoices to the installation finance office for recording and subsequent forwarding to the San Mateo Postal Data Center (94497-9133).
- b. Send copies of invoices (certifying official) to the occupational health nurse administrator or area medical director or designees for their files.
- c. Charge payment for non-job-related medical services (such as routine medical examinations, nursing services, and first aid treatment that is not related to an on-the-job injury or illness) to General Ledger Account (GLA) 52428.
- d. Charge payment for medical services that are job-related (such as office visits, X-rays, lab work, pharmaceutical bills, and fitness-for-duty examinations that are required because of an on-the-job injury or illness) to GLA 52427.

- e. Charge payment for medical services for *customers involved in accidents* on or with Postal Service property (only for the initial visit) to GLA 55216.

Note: AICs 578, 577, and 597 automatically crosswalk to five-digit expense accounts 52428, 52427, and 55216, respectively, in the General Ledger.

Example: A sample payment log used for recording payment information follows:

Medical Payment Control Log — Calendar Year		
Name:		
Address:		
City:		
State:		
ZIP + 4:		
Social Security Number:		
Invoice Amount	Date Paid	Total Year to Date
_____	_____	_____
_____	_____	_____
_____	_____	_____

868.14 Health Agreements

Health agreements are negotiated between the Postal Service and other federal agencies to provide medical services to those agencies at Postal Service facilities. The occupational health nurse administrator and facility manager are responsible for approving such agreements.

868.2 Malpractice

Malpractice insurance is not available for postal medical personnel. Representation in civil or criminal proceedings is provided in accordance with 667.2.

868.3 Preservation of Privacy

Preservation of the privacy of medical records is a direct responsibility of the postal physician or nurse (see Management Instruction EL-860-98-2, *Employee Medical Records*). In facilities where no medical personnel are assigned, the district occupational health nurse administrator arranges with the installation head to properly secure the medical records.

868.4 Medical Training

See 740.

868.41 Continuation of Training

The Postal Service authorizes training for employees to upgrade or maintain proficiency in their current positions. Continuing medical education by the following is encouraged:

- a. Attendance at seminars and medical meetings to improve the professional skills of occupational health nurse administrators, occupational health nurses, and medical directors.
- b. CPR training (with annual recertification) is required for all medical personnel, at Postal Service expense.

868.42 Requests for Training

Requests for medical training by medical personnel are to be submitted through the employee's supervisor to the appropriate approving official at the installation.

868.5 Conflict of Interest**868.51 Full-Time Medical Personnel**

The following provisions apply for full-time personnel:

- a. Full-time medical personnel must not accept any postal employee as a private patient. *Medical personnel* are defined as physicians, nurses, and other professional personnel. This rule applies to new patients and does not affect physician-patient relationships that were in existence prior to the issuance of this subchapter. The exception is where an existing private relationship creates an actual conflict of interest as defined in 661.42, in which case the relationship must be terminated.
- b. Postal physicians who are treating postal employees in the scope of their duties may not refer employees to their private practice or that of a relative. *Relative* is defined in Handbook EL-311, Chapter 3.

868.52 Part-Time and Contract Medical Personnel

The following provisions apply for part-time personnel:

Part-time and contract medical personnel may treat postal employees privately within the bounds of the general ethical conduct standard (661.42) that provides that outside employment may not interfere with the duties and responsibilities of Postal Service employment. Specifically, part-time or contract medical personnel may not:

- a. Coerce, solicit, or inhibit an employee from the free choice of physician in the treatment of an occupational injury or illness.
- b. Serve as the private physician to, or treat in private practice, postal employees sustaining occupational injuries or illness unless the physician is the physician of choice. Any treatment of an employee for an occupational injury or disease by a part-time or contract physician is,

in all cases, considered to be performed within the scope of the physician's postal duties or pursuant to the terms of any contract with the Postal Service for up to two visits. If treatment of the medical condition goes beyond two visits, and if the injured employee selects the contract physician as "physician of choice," the contract physician then becomes the employee's physician and subject to OWCP's regulations rather than those of the Postal Service.

- c. Continue to treat postal employees for a non-job-related injury or illness when the employee initially sought treatment while the physician, nurse, etc., was acting in an official capacity with the Postal Service.

868.53 **Contract Medical Facilities and Providers**

The provisions described in 868.52 are also applicable to medical clinics or other similar facilities under contract with the Postal Service.

870 Employee Assistance Program

871 Introduction

871.1 Purpose

871.11 General

The Employee Assistance Program (EAP) is a formal, nondisciplinary program designed to assist employees and their immediate families in recovering from alcoholism and drug abuse and in dealing with other problems — mental, emotional, familial, marital, financial, legal, and other — that may adversely affect both an employee's job performance and personal life. Assistance is provided through consultation, evaluation, counseling, and/or referral to community resources and treatment facilities.

871.12 Alcohol or Drug Abuse

Recognizing that alcohol and drug abuse are serious health problems that can adversely affect an employee's job performance and personal life, the EAP continues the Postal Service's obligation under the various collective-bargaining agreements to provide a program for employees afflicted with these problems. The program is not intended to alter or amend any of the rights or responsibilities of postal employees or of the Postal Service itself.

871.2 Definitions

Special terms used in this subchapter include the following:

- a. *Alcoholism* — a complex disease characterized by the uncontrolled use of alcohol.
- b. *Drug abuse* — an improper or illegal use of or dependency on drugs.
- c. *Employee and workplace intervention analyst (EWIA)* — a postal employee with at least a master's degree in psychology, counseling, or other discipline related to human behavior. (See Occupation Code 0301-5363 for a complete description of duties and responsibilities.)
- d. *External EAP service provider* — an individual or group external to the Postal Service providing EAP services through an interagency agreement or on a contractual basis.
- e. *Family member* — any legal dependent of the employee, or anyone living in the employee's household, with the exception of tenants or employees of the postal employee who live in the household.
- f. *Internal EAP* — employee assistance services provided by employees of the Postal Service.
- g. *Other problems* — include, but are not limited to, gambling, stress, and emotional, family, marital, financial, and legal problems.
- h. *Self-initiated referral* — an employee's voluntary referral of him- or herself for assistance from the EAP, made by directly contacting an

EAP counselor. An employee's first visit to the EAP may be on the clock, provided the manager receives advance notice and concurs. Subsequent consultations are on the employee's own time.

- i. *Written referral* — a manager's and/or supervisor's referral of an employee to the EAP based on job performance, attendance, or conduct issues. This type of referral is in writing, and the counselor receives a referral memo addressed to the EAP.

871.3 **Policy**

871.31 **Job Security**

Participation in the EAP is voluntary and will not jeopardize the employee's job security or promotional opportunities.

871.32 **Limits to Protection**

Although the employee's voluntary participation in EAP counseling for alcoholism or drug abuse should be given favorable consideration in disciplinary action, participation in EAP does not limit management's right to proceed with any contemplated disciplinary action for failure to meet acceptable standards of work performance, attendance, and/or conduct. Further, participation in EAP does not shield an employee from discipline or from prosecution for criminal activities.

871.33 **Confidentiality**

Inquiries regarding participation in EAP counseling are confidential, pursuant to the provisions of ELM 874.4.

871.34 **Reasonable Access**

The contractor must endeavor to provide confidential counseling facilities within a reasonable driving distance from the employee's work site or home. While it is desirable to provide ready accessibility to face-to-face EAP counseling, areas exist where it is not possible to do so. Counselors may offer telephone counseling or request that the client travel to the counselor's office. Counselors must be on duty at the EAP office during specified hours and days, including coverage of all three tours, as mutually agreeable between the employee and workplace intervention analyst (EWIA) and the counselor. Counselors may adjust their schedules to respond to crisis situations.

871.35 **Scheduling**

An employee's first visit to EAP is on the clock, whether the visit is initiated by management, the union representative, or the employee concerned, unless the employee prefers to visit the EAP unit on his or her own time. Subsequent consultations are on the employee's own time.

872 Program Elements

872.1 Education

EAP counselors and/or subcontract counselors must provide seminars periodically for all Postal Service employees so that they may become aware of the EAP services as well as the various personal problems that can affect job performance or conduct. The EAP counselor in collaboration with the employee and workplace intervention analyst (EWIA) determines where and when to provide these sessions.

872.2 Problem Identification, Referrals, and Evaluation

872.21 Patterns of Behavior and Work Performance Problems

It is generally recognized that certain patterns of behavior and/or work performance problems can be indicative of difficulties affecting the employee. These problems may include gambling, substance abuse, emotional stress, or marital problems. Deterioration in attendance, appearance, conduct, ability, or any combination of these factors may signal that the employee is experiencing a personal problem that may affect his or her job performance.

872.22 Referrals to EAP

872.221 Management Referrals

If a supervisor or manager observes such characteristics as listed in 872.21, or has some other reason to believe that the EAP could provide needed assistance to an employee, he or she may refer an employee to EAP in writing using the EAP referral form. The supervisor or manager should not attempt to diagnose the perceived problem. The employee has the option to refuse the referral, and the employee cannot be disciplined for noncompliance.

Exception: In instances when there is a Last Chance Agreement, or when the employee has signed a settlement agreement agreeing to participate in the EAP, the employee can be disciplined for noncompliance within the terms of the signed agreement. Regulations do not permit any EAP documentation to be placed in an employee's official personnel file (OPF).

872.222 Referrals From Others

Employees may be referred to EAP by fellow employees, union representatives, management association representatives, medical personnel, family members, or judicial or social service agencies.

872.223 Self-Referrals

Employees who desire assistance with a substance abuse or other personal problem are encouraged to seek such assistance directly by personally contacting the EAP service provider responsible for their installation.

872.224 EAP Response

The EAP counselor must accept all referrals. Face-to-face or telephone interview appointments must be available within a reasonable period from the time the request is made by the employee or family member. Face-to-face

and telephone appointments for urgent situations must be made consistent with need, regardless of the counselor's regularly scheduled hours. Crisis counseling must be available by telephone 24 hours per day, 365 days per year.

872.23 **Problem Evaluation**

EAP counseling staff provide evaluation services and arrange counseling for employees or family members or refer them to appropriate treatment providers. In cases subject to Department of Transportation (DOT) regulations, the Postal Service medical personnel should ensure that any appropriate or necessary medical examinations and evaluations are done and then monitor counseling and referrals to recovery programs with EAP counseling personnel.

872.3 **Recovery Counseling and Resources**

872.31 **EAP Counseling Units**

EAP units are staffed by EAP counseling professionals trained to counsel and provide referral services to individuals who seek their assistance. Postal EAP units are not equipped to provide detoxification or drug rehabilitation assistance, but they do make use of referral programs and other treatment facilities for these problems.

872.32 **Residential and Community Resources**

A wide variety of other outside programs and treatment facilities are available to be recommended to employees and family members. EAP counseling service providers maintain a current list of community programs and resources, and assist with initial arrangements and appointments. The cost of any such programs or treatment facilities is borne by the employee if it is not covered by the employee's health insurance. In cases for which hospitalization or detoxification is recommended, requests for sick leave, leave without pay, annual leave, or advanced sick leave are the responsibility of the employee.

872.4 **Follow-Up**

872.41 **Progress**

If a manager or a supervisor has referred an employee to EAP counseling as a result of a job performance problem, that manager or supervisor should continue to monitor the employee's job performance.

872.42 **Discontinuance of Participation**

Whether an employee opts to continue or discontinue participation in the EAP counseling, he or she is still responsible for maintaining prescribed job performance standards.

872.43 **Return to Work**

If an employee is on leave from the Postal Service to participate in an outside rehabilitative program for mental health or substance abuse issues, the EAP

counselor monitors the course of rehabilitation and assists in any contemplated return to work. After such leave, Postal Service medical personnel or a contract physician must examine the employee and make a recommendation to management regarding his or her ability to return to work. The decision to return the employee to duty rests with the installation head.

872.5 **Program Evaluation**

872.51 **General**

The EAP must be evaluated annually or more often, as needed. The purpose of these evaluations is to measure the efficiency and effectiveness of the program and to ensure that it is operating within established policy.

872.52 **District Reviews**

Evaluation teams for district reviews are initiated by the employee and workplace intervention analyst (EWIA), utilizing prescribed evaluation procedures.

872.53 **Subcontract Provider Reviews**

Responsibility for evaluation of subcontract EAP providers' credentials and offices rests with the employee and workplace intervention analyst, who utilizes established evaluation procedures.

873 **Reinstatement of Recovered Employees**

873.1 **Policy**

873.11 **Consideration of Request**

Requests for reinstatement from recovered employees should be given serious consideration, recognizing that the experience gained in former postal employment is a potentially valuable asset.

873.12 **Consideration of Other Factors**

In reviewing such reinstatement requests, local management must consider the former employee's postal work history and the nature of the charges that led to removal or resignation, as well as the eligibility factors set forth in 873.2 and those contained in Handbook EL-311, *Personnel Operations*. Exceptions to reinstatement consideration are made whenever the employee has been investigated for violations of the law, such as theft of mail or postal property, assaults or threats, fraud, or possession and/or sale of drugs on property or on duty.

873.2 Eligibility**873.21 Procedures**

Reinstatement of an individual whose removal or resignation from the Postal Service is related to alcoholism, dependency on drugs, or other problems, may be considered when the individual:

- a. Submits a written request for reinstatement, accompanied by a signed authorization to release information, indicating the employee's written consent to a waiver of federal regulations on confidentiality restrictions.
- b. Is willing to accept reinstatement on the basis of continued participation in the EAP if deemed necessary by the EAP counselor.

873.22 Management Responsibilities

The employing official must obtain certain prior approvals when removals for cause are involved as outlined in ELM 323.23. For procedural requirements regarding reinstatement, see Handbook EL-311.

873.3 Compliance With Agreements

If a former bargaining-unit employee is reinstated to a bargaining-unit position, employing officials must comply with all relevant provisions of applicable collective-bargaining agreements in determining the employee's seniority and other contractual rights.

874 EAP Counseling Records**874.1 Policy**

Information about EAP counseling participants must be held in confidence. As restricted information, it may be disclosed only as shown in 874.4.

874.2 Definition of Restricted Information

Restricted information is information that has limitations placed upon both its access within the Postal Service and disclosure outside the Postal Service consistent with the Privacy Act and Public Health Service Act.

874.3 Custodians of Records**874.31 Postal Service Providers**

When EAP services are provided by Postal Service employee counselors, counseling records are maintained within the Privacy Act system of records, USPS 120.140, Personnel Records — Employee Assistance Program (EAP) Records. They are therefore subject to Postal Service access, disclosure, amendment, and records maintenance regulations and policy implementing the Privacy Act (39 CFR 266, ASM 353, and ASM Appendix).

874.32 Private Providers

When EAP services are provided through an interagency agreement or a private vendor, each EAP counseling service provider is responsible for

maintaining records concerning participants. These counseling records are the property of the primary provider and maintained in a system of records. The primary provider must maintain policies and procedures for safeguarding the confidentiality of client data and files and may be liable under the law for improper release of such information. The primary provider agrees to assert any privilege allowed by law and to defend vigorously Postal Service rights to confidentiality.

874.4 **Disclosure**

874.41 **General**

874.411 **Usual Recipients**

Information identifying program participants, whether or not such information is recorded, may be disclosed as follows:

- a. To medical personnel outside the Postal Service to the extent necessary to meet a *bona fide* medical emergency involving the participant.
- b. To the supervisor and/or manager for purposes of advising as to whether or not the employee appeared for any on-the-clock interview.
- c. To qualified personnel with the express written authorization of the vice president of Employee Resource Management, for purposes of conducting scientific research or program audits or evaluation. However, under no circumstances may any identifying information be disclosed in the resulting evaluation, research, or audit reports.
- d. When authorized by a court order upon showing of good cause, such as when necessary to protect against an existing threat to life or of bodily injury, or in connection with the investigation or prosecution of a crime. In addition, in litigation or an administrative proceeding when authorized by the trier of fact, when the employee offers testimony or other evidence pertaining to the content of his or her EAP participation. Counsel should be contacted for assistance in both evaluating the order and in determining the extent to which information must be released.
- e. To any person with the prior written consent of the program participant.
- f. In any situation where the counselor has a "duty to warn."
- g. To an expert, consultant, or other individual who is under contract to the Postal Service to fulfill an agency function, but only to the extent necessary to fulfill that function, and in accordance with the Privacy Act restrictions as listed under 39 CFR 266.6.

874.412 **Limitation of Disclosure**

In all cases above, only information that is absolutely necessary to satisfy the recipient's business or medical need is to be disclosed.

874.42 **Criminal Activity**

874.421 **EAP Records**

No EAP counseling records or personnel may be used to initiate or substantiate any criminal charges against a program participant or to conduct

any investigation of a participant, except as authorized by a court order for good cause.

874.422 Limitation of Confidentiality

If an EAP counseling participant reveals the commission or intended commission of serious criminal activity, the EAP counselor is not prohibited from disclosing that information so long as the employee is not identified as an EAP counseling program participant. Confidentiality does not apply in any of the following cases:

- a. A crime is committed on EAP premises or against EAP counselor personnel or a threat to commit such a crime is made.
- b. Incidents of child abuse and/or neglect (elder abuse in some states) occur.
- c. Disclosure is required to elements of the criminal justice system that have referred patients.

875 Employee and Workplace Intervention Analysts

875.1 Introduction

Employee and workplace intervention analysts ensure that the EAP is effectively administered and meeting employee and management needs. Using organizational development intervention strategies, the employee and workplace intervention analyst may make recommendations to resolve workplace climate issues and improve work environments.

875.2 Disclosure Policy

Employee and workplace intervention analysts using organizational intervention strategies to effect workplace climate and culture changes are bound by regulations according to ELM 314.52–55. Employee and workplace intervention analysts must also adhere to Freedom of Information Act and Privacy Act restrictions as listed in ASM 352–353 and Appendix and to the Professional Organizational Development Code of Ethics.

875.3 Program Elements

875.31 Problem Identification

Employee and workplace intervention analysts conduct organizational interventions, workplace climate assessments, conflict resolutions and/or threat assessments which may identify work climate and culture problems (see 871.2c).

875.32 Problem Evaluation

In conducting organizational interventions, the employee and workplace intervention analysts must make recommendations to the appropriate leadership team to enable resolution of organizational concerns.

880 Smoking

881 Definition

Smoking is defined as having a lighted cigar, cigarette, pipe, or other smoking material.

882 Policy

882.1 Buildings

Smoking is strictly prohibited in all buildings or office space (including service lobbies) owned or leased by the U.S. Postal Service. There will be no indoor smoking permitted by any occupant of such space. Local managers, with input from employee representatives, may decide whether or not to permit smoking in designated outdoor locations on Postal Service property.

882.2 Vehicles

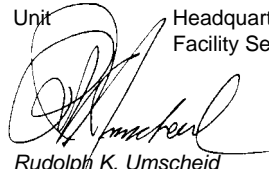
Smoking is prohibited in any General Services Administration (GSA) interagency fleet management system (IFMS) vehicles.

Management Instruction

Emergency Evacuation and Fire Prevention

This instruction provides the Emergency Action Plan and Fire Prevention Plan required by *Employee and Labor Relations Manual* (ELM) 850. It outlines procedures for use by evacuees — employees, contractors, and other tenants — in case of an emergency at Postal Service Headquarters, 475 L'Enfant Plaza, Washington, D.C., and by Postal Service employees implementing the two plans.

Date	June 27, 2001
Effective	Immediately
Number	EL-850-2001-2
Obsoletes	MI AS510983
Unit	Headquarters Facility Services


Rudolph K. Umscheid
Vice President
Facilities

Emergency Action Plan

Procedures to Use in an Emergency Evacuation

In an emergency or when an emergency evacuation drill occurs, *all* Postal Service employees, contractors, and other tenants must evacuate the building in a rapid but orderly manner. Emergencies that may require evacuation include fire, smoke, release of hazardous chemicals, earthquake, or bomb threat. Emergency evacuation team (EET) members have been pre-selected and trained to help in carrying out a safe evacuation. Specific EET duties are outlined on page 4.

Remember: In case of evacuation, fire, or medical emergencies, call extension 4566.

Preparing for an Emergency

Before an emergency occurs...

- _1 Locate the fire alarm box nearest your work space and read the instructions on the box.

You can find alarm boxes in elevator lobbies on each floor, in the center corridors, at the extreme north and south ends of the building, and in other locations.

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Pulling the boxes activates an interior local signal in an emergency evacuation alarm system that notifies the Postal Police Command Center — *not the Metropolitan Fire Department*. The Postal Police Command Center (a) identifies the box pulled (or the location of another initiating device such as a smoke detector), (b) dispatches a postal police officer (PPO) at once to that location, and if necessary (c) the PPO will notify the Metropolitan Fire Department.

_2 Locate the fire extinguishers.

The ABC type, multi-use fire extinguishers (portable) can be found throughout the building and garage levels.

Caution: Do not use water on electrical, flammable liquid, or chemical fires.

_3 Understand the emergency alarm system.

The emergency alarm signal for evacuation is an alert tone with strobe lights flashing, followed by an audible announcement of instructions to evacuate a particular zone or to evacuate the entire building.

Notice: Do not evacuate if the alert tone with strobes flashing activates for a short period of time (less than one minute without voice instructions) and is silenced. When the alert tone next sounds with the strobes flashing and is followed by an audible voice announcement, you must then immediately evacuate the building.

_4 Locate the emergency evacuation routes in your area.

Stairwells located on each side of the elevator lobbies are to be used as evacuation exits.

Notice: Evacuees must not use elevators unless they are persons with disabilities (see If you are a person with a disability...).

_5 Locate the EET member rosters posted in each elevator lobby on all floors and find the members assigned to your area. If you have a temporary or permanent disability, introduce yourself to appropriate EET team members.

_6 Be aware that a temporary first-aid station away from danger may be set up if necessary.

The Postal Police Command Center (room 1320) in the south lobby will likely serve as a first-aid station. But if that location is unavailable, the PPOs will set up a station elsewhere on the first floor or outside the building.

If you are a person with a disability, permanent or temporary...

_1 Be aware of special evacuation instructions that apply to persons with a permanent or temporary disability.

A pre-selected, trained aide from the EET team will help you.

A freight elevator is the preferred method for evacuation of persons with disabilities. If this elevator is unavailable, you will be helped to enter the west, double-door stairwell and descend these stairs from any floor.

Special evacuation sleds are available. EET members will access the sleds or other equipment to aid your safe exit.

- _2 Introduce yourself to the floor warden, aides to the disabled, and their alternates assigned to aid you. This is important even if your disability may be temporary (broken bones), or not obvious (recent surgery, cardiac or respiratory illness).

If you are entrusted with protecting valuable materials...

- ___ Make sure adequate security measures are maintained for safeguarding valuable materials, papers, money, and stamps during an emergency evacuation.

Reporting an Emergency

If you need to report an emergency that may require an evacuation...

- _1 Pull down the cover of the nearest fire alarm box. The Postal Police will be notified and will dispatch an officer to your location.
- _2 If safe to do so, stay near the fire alarm box until PPOs (or firefighters) arrive, in order to direct them to the exact location of the fire or other emergency.

Caution: Do not stay at the fire alarm box if your personal safety is endangered.

If you think you can extinguish a first-stage fire...

- ___ If a fire has just started and is well controlled, you may want to try to put it out with a fire extinguisher. Do not delay sounding the alarm to report the emergency in order for the situation to be evaluated for possible evacuation of the building.

Caution: Do not try to fight any fires that are beyond the first stage or that involve the structure of the building. Under no circumstances use personal protective gear or self-breathing apparatus. Leave fire fighting to the professionals.

Evacuating the Building

When the second sounding of alert tone, strobes flashing along with the audible voice announcement for evacuation occurs...

- _1 Secure your own personal work space and valuables as required and proceed in a rapid but orderly manner to the designated stairwell to exit through the lobby doors and a safe distance from the building.

Caution: Do not try to use the elevators unless you are a person with a disability. Elevators will not respond to hall call buttons when the evacuation alarm sounds. Only disabled persons and aides to the disabled are to exit the building using the freight elevator (see: If you are a person with a disability...).

- _2 As you exit along evacuation routes, follow instructions given by floor wardens, other EET members, and PPOs coordinating the evacuation.

Caution: If smoke or fire blocks any designated exits, floor wardens and stairway monitors will direct you to alternate exits.

- _3 Be careful of traffic when crossing the street and do not impede the path of fire personnel and vehicles.

If you are a person with a disability, permanent or temporary...

- _1 You and/or the aide to the disabled call the Postal Police Command Center at extension 4566, give your location, and request a "disabled pickup." You and the aide to the disabled (or other EET member) proceed to the nearest freight elevator (elevators #1 and #14), descend to the first floor, and exit through the lobby doors and away from the building.
- _2 If no freight elevator arrives, make sure an aide helps you to the west, double-door stairwell. The aide will advise the EET leader or floor warden of your location and will solicit more help if needed.
- _3 If the EET leader determines that a sled evacuation is needed, follow the instructions of those conducting the evacuation to ensure a safe exit down the west stairs.

Emergency Evacuation Team

Composition of the Team

The core of the Emergency Evacuation Plan is the emergency evacuation team.

Headquarters Facility Services appoints an EET leader to implement the Emergency Action Plan.

The EET leader — with unit managers, appoints EET members (floor wardens, stairway monitors, elevator monitors, aides to the disabled, and their alternates) for each floor, and coordinates training for the EET members to carry out a safe emergency evacuation.

General Duties

- _1 Be familiar with all parts of the Fire Prevention Plan and the Emergency Action Plan (as outlined in this MI), the alarm system, and communications systems.

- _2 Insure that anyone serving as an alternate fully understands your responsibilities and can substitute for you without notice. In an emergency, that alternate should go at once to your sector to cover your duties if you are absent. Alternates are encouraged to read the instructions for other EET members to ensure coordination and mutual understanding. Place your hat and instructions at your workstation where they are easily retrievable.
- _3 Take part in all scheduled EET meetings.
- _4 Follow the floor warden's instructions as necessary.
- _5 Ensure adequate coverage of floor warden and other EET assignments when the floor warden is not available.
- _6 Upon the first alarm activation of the emergency alarm system, an alert tone and strobe light warn of a possible emergency situation. Go at once to your assigned sectors and assume assigned duties.
- _7 If an emergency exists (*alert tone, strobes flashing followed by an audible voice announcement giving instructions to vacate the building*), evacuate occupants in a manner that is as rapid, safe, and orderly as possible. Bar entry to danger zones and direct occupants to alternate safe exits if necessary.
- _8 Aid the PPOs and/or Metropolitan Fire Department officials as requested.

Specific Duties

Emergency Evacuation Team Leader

Appointed by the Headquarters Facility Services, the EET leader makes sure that managers fill team vacancies, coordinates EET training, and implements the Emergency Action Plan.

When the second sounding of alert tone, strobes flashing along with the audible voice announcement for evacuation, occurs...

- Assume command of the evacuation operation until the Metropolitan Fire Department or other responding unit arrives.

Floor Wardens

The EET leader assigns a floor warden for each end (north and south) of each floor.

During an evacuation, floor wardens (a) ensure assignment of aides to persons with disabilities and (b) coordinate efforts of other EET members.

Floor wardens notify the EET leader in writing of any new team members to update the emergency evacuation rosters.

Before an emergency occurs...

- _1 Know your EET members and their alternates. Contact each EET member and make sure each person is equipped with a hat and set of emergency evacuation duties and instructions.
- _2 Review and be able to explain to all EET members their duties and instructions.
- _3 Know the names and locations of persons in your sector who have a temporary or permanent disability. Assign an aide and/or an alternate to each disabled person. Be prepared to assign more people to specific tasks as needed.

Upon the first alarm activation of the emergency alarm system, an alert tone and strobe light will warn of a possible emergency situation...

- Insure that the aides to the disabled go the workstation of the disabled person and stand by to call the Postal Police at 4566 to request an elevator to pick up the disabled. If the second alarm with voice announcement does not sound, the aides and the disabled can return to their work assignments.

When the second sounding of alert tone, strobes flashing along with the audible voice announcement for evacuation, occurs...

- _1 Close all interior and exterior doors and make sure that doors remain closed except when opened to aid a fire-fighting or damage-control effort.
- _2 If necessary, go to the Postal Police Command Center to advise the Postal Police or EET leader of conditions and circumstances that need greater aid.
- _3 Tour your sector to make sure that *all* persons (including those with a temporary or permanent disability) have evacuated.
- _4 Report "all clear" to the Postal Police Command Center and exit the building when all occupants in your sector have evacuated. If you cannot report in person before you exit the building, make sure to call 4566 to report.

Stairway Monitors

On each floor, one stairwell monitor is assigned to the north stairwells and one to the south stairwells.

Stairway monitors direct evacuees to a safe evacuation route away from areas filled with smoke or other hazards. They regulate the flow of evacuees to the stairwells to prevent overcrowding and respond to the instructions of the floor wardens.

Before an emergency occurs...

- Be familiar with your duties and instructions and those of the other EET members.

Upon the first alarm activation of the emergency alarm system, an alert tone and strobe light will warn of a possible emergency situation...

- ___ Report to the stairway exits and stand by to aid in the evacuation efforts.

When the second sounding of alert tone, strobes flashing along with the audible voice announcement for evacuation, occurs...

- _1 Make sure that all evacuees descend using either stairway in a manner that is as rapid, safe, and orderly as possible. If a stairway becomes so crowded that there seems to be little movement, direct the evacuees to a less occupied stairway. To ease redirecting evacuees, ask someone to hold those stairway doors open until all occupants have evacuated from your sector.
- _2 After evacuating the area, close the doors so they continue to work as stairwell protection.
- _3 After the evacuation of your sector is complete, descend to ground level and exit through the lobby doors.

Aides to the Disabled

An aide is assigned by floor wardens to help evacuate any person with a temporary or permanent disability.

Aides go to the workstation of the disabled person to help him or her exit safely away from the building by using a freight elevator or the stairs.

Before an emergency occurs...

- _1 To offer or receive aid, be familiar not only with your own duties and instructions but also with those of the floor warden and elevator monitor.
- _2 Become acquainted with the location of any person with a temporary or permanent disability assigned to you.
- _3 Locate freight elevators 1 and 14.

Designated Headquarters Facility Services employees and/or PPOs will override the elevator system, taking manual control of the freight elevators 1 and 14 that may be used to evacuate persons with disabilities.

Upon the first alarm activation of the emergency alarm system, an alert tone and strobe light will warn of a possible emergency situation...

- ___ Go to the workspace of the disabled person and prepare to evacuate the area.

When the second sounding of alert tone, strobes flashing along with the audible voice announcement for evacuation, occurs...

- _1 Call extension 4566 and state your exact location (e.g., "Room 9801, north side, 9th floor") and request a freight elevator for a "disabled pickup." Help the disabled person to the elevator lobby.

- _2 If the emergency situation permits, help the disabled person stay in front of the elevators until a freight elevator comes. Go down to the first floor using the freight elevator designated for evacuation. Then exit with the disabled person through the lobby doors and safely away from the building.
- _3 If more people need to evacuate than the freight elevator can accommodate on the first trip, tell the elevator operator to come back and then watch for the elevator's return.
- _4 If within 5 minutes a freight elevator has not come or the emergency prohibits using the elevators, help the disabled person into the west, double-door stairwell. Find more aid to help the disabled person descend using that stairwell.
- _5 If you cannot find enough help for the disabled persons trying to descend using the stairs, tell the floor warden your location and requirements, and stay with the disabled person in the west, double-door stairwell until help arrives.

If necessary, special evacuation sleds located in the north and south stairwells on the 5th and 11th floors can be used to give disabled persons a ride down the stair nosing of each floor to reach the lobby.

Elevator Monitors

On each floor, one elevator monitor is assigned to the north elevator core and one to the south elevator core.

Before an emergency occurs...

- _1 Understand that if the floor warden cannot get instructions to you, and the aide to the disabled or alternate is not available, you may need to manage the evacuation of disabled persons.
- _2 Be familiar not only with your own duties and instructions but also with those of the floor warden and aide to the disabled, whom you may need to help.

Upon the first alarm activation of the emergency alarm system, an alert tone and strobe lights will warn of a possible emergency situation...

- Report to the elevator lobby in your area of responsibility and stand by to aid with evacuation efforts.

When the second sounding of alert tone, strobes flashing along with the audible voice announcement for evacuation, occurs...

- _1 Do not allow any persons other than disabled persons and aides to use a freight elevator.
- _2 If the emergency permits, help disabled persons stay in front of the freight elevator until it arrives or for 5 minutes.
- _3 If more people need to evacuate than the freight elevator can accommodate on the first trip, tell the elevator operator to come back and then watch for the elevator's return.

- _4 If a freight elevator is unavailable, help the disabled person into the west, double-door stairwell. As necessary, assist the aide to the disabled to locate more assistance to evacuate disabled persons.
- _5 If the emergency prohibits using the elevators, assist aides to the disabled to help all persons with a temporary or permanent disability to descend using the west, double-door stairs.
- _6 After the evacuation of your sector is complete, descend to the ground level and exit through the lobby doors.

Emergency Evacuation Team Assignments

If you manage an organizational unit...

- _1 Fill vacancies on the EET in your unit promptly and report them to the EET leader. The EET leader and the floor wardens can help you.
- _2 Encourage volunteer membership and seek qualified, trained persons with an interest in this work.

If you are considering volunteering for the emergency evacuation team...

- Contact your organization head, floor warden, or EET leader, particularly if you can contribute fire safety ability, first-aid skills, or have similar qualifications or training. Headquarters Facility Services keeps the current list of all Headquarters EET members.

Notice: If you have a known heart disease, epilepsy, chronic obstructive pulmonary disease, or other severe condition, you should not participate on the emergency evacuation team unless you have written permission from your physician.

Inspections and Meetings

Headquarters Facility Services and Corporate Personnel Management safety personnel will conduct annual fire inspections and document them on Form 1784-A, *Safety and Health Inspection Checklist*.

The EET leader must schedule EET meetings as necessary but not less than annually.

Emergency Evacuation Drills

The EET leader schedules an emergency evacuation fire drill at least once a year to familiarize all employees, contractors, and other tenants with emergency evacuation procedures.

Damage Control Team

Headquarters Facility Services has a staff of trained maintenance technicians and mechanics with ample standby equipment and vehicles. The team is capable of conducting any repairs, restorations, and clean-up in a building emergency.

Headquarters Facility Services keeps up-to-date information on the staffing and roles of the damage control team, lists of locations of emergency shutoff valves, equipment in readiness, and other pertinent data useful to floor wardens, security officers, and safety officials.

Fire Prevention Plan

Headquarters Facility Services implements the Fire Prevention Plan and will insure that adequate numbers of working fire extinguishers are available throughout the building and also to extinguish chemical and electrical fires in rooms housing flammable chemicals or large amounts of electrical equipment.

To prevent fires, all employees, contractors, and other tenants must follow fire regulations and maintain good housekeeping at all times while in the building.

Housekeeping

Avoiding Careless or Needless Trash Accumulation

- _1 Dispose of trash according to methods and schedules set up by Headquarters Facility Services as identified in Handbook EL-801, *Supervisor's Safety Handbook*; Handbook EL-803, *Maintenance Employee's Guide to Safety*; and Handbook EL-814, *Postal Employee's Guide to Safety*.
- _2 Neatly arrange stored materials in stockrooms and other storage enclosures with adequate aisles to provide access.
- _3 Do not leave solvents, oily rags, or other flammable materials in the building, unless you place them in provided metal containers that have been approved and covered.

Keeping Areas Unobstructed

At all times in the following situations, all employees, contractors, and other tenants must adhere to the following rules:

- _1 Do not place or store anything in corridors, aisles, or stairways.
- _2 Do not obstruct access to any aisles, stairwells, fire extinguishers, fire hoses, sprinkler valves, or fire alarm boxes.
- _3 Do not obstruct any building exit doors and/or any doors leading to emergency evacuation routes.
- _4 Do not store items closer than 18 inches to sprinkler heads or smoke detectors.

Fire Regulations

Complying With Regulations

All postal employees, contractors, and other tenants located in the Headquarters building must follow these fire regulations:

- _1 Smoking is not permitted anywhere in the building or garage.
- _2 Electric appliances like coffeepots, microwave ovens, refrigerators, fans, and heaters must be authorized by Headquarters Facility Services and Safety personnel. Appliances must meet UL, FM, or other safety specifications and have a visible “on” light located on the unit or wall outlet.
- _3 Authorized appliances must be placed in a safe location away from combustible materials.
- _4 Set up and maintain a system to make sure that coffee pots or other appliances are turned off at the end of each day or when not in use.

Exception: Coffee pots with a reservoir for holding hot water need not be turned off daily.

Note: After a third reported instance of not turning off coffee pots, warmers, and other similar appliances at the end of each day, privileges for using the appliance or coffee service will be suspended.

- _5 **Do not** bring into the building any heat-producing devices such as halogen torch lamps, heaters, hot plates, heating elements, toasters, and other unauthorized electrical appliances.
- _6 **Do not** fasten back or hold open any fire doors. Keep fire doors closed at all times.
- _7 Always consult with Headquarters Facility Services when considering the storage of heavy objects or installation of machines and safes. Do not allow floor loading to exceed the allowable weight limit.

Reporting Violations

- _1 Stay alert for violations or for other situations or conditions that could precipitate a fire or other emergency.
- _2 Report violations to Headquarters Facility Services or use Form 1767, *Report of Hazard, Unsafe Condition, or Practice*, to report violations to your supervisor or manager.

Handbook EL-814

Postal Employee's Guide to Safety

January 1997

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Handbook EL-814
January 1997

Emergency Phone Numbers

First Aid-Medical or Health Unit _____

Ambulance (Emergency Rescue)
Service _____

Hospital _____

Fire Department _____

Police Department _____

Safety Office _____

Security Office _____

Postal Inspector _____

Hazardous Materials Spill or
Leak Control _____

Injury Compensation Control Office
or Control Point _____

Employee Assistance Program _____

For use only during regular workhours and
only on postal premises.

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Introduction

This booklet provides simple, easy-to-locate safety rules and procedures so that you can familiarize yourself with those rules that apply to your job. The booklet is intended for reference only. It is not to be taken off postal premises; use it only during your regular work hours. This booklet is not intended to be all-inclusive, as it cannot cover all the conditions which may arise on your job. Your local office may have more specific rules to supplement these requirements.

The omission of any safety information from this booklet does not reduce your personal responsibility to remain alert and use good judgment when performing your duties. If any rule or procedure is not perfectly clear to you, ask your supervisor for clarification. Learn and use all the rules and procedures that apply to your job.

The Postal Service welcomes any suggestions you may have that might improve the safety of operations. Submit your suggestions to your supervisor. You may wish to submit a suggestion on Form 1270, *Idea Proposal*.

If you observe an unsafe condition or an unsafe act, report it immediately to your supervisor. Use Form 1767, *Report of Hazard, Unsafe Condition, or Practice*. If you want to submit your report anonymously, file the Form 1767 directly with your installation's safety officer or collateral-duty safety officer. Form 1767 should be available in your work area.

SECTION I

General Safety Rules

A. General Rules

Safety rules are for your benefit; observing safe working practices and postal safety rules is a primary responsibility of all postal employees. General safety rules include, but are not limited to:

- Never work under the influence of intoxicants.
- Never sell, possess, or use illegal drugs on postal premises. If you are required to take physician-prescribed drugs which could impair your mental or physical abilities, you must notify your supervisor; never drive or work around moving equipment while under the influence of drugs.
- Never keep contraband material such as firearms, dangerous weapons, fireworks, intoxicants, or illegal drugs on postal premises.
- Never engage in horseplay, scuffling, fighting, or playing practical jokes on postal premises.

In addition:

- Don't run in postal facilities. Walk down stairs and hold the handrail.
- Don't toss or throw packages or bundles, unless required by the operation (e.g., culling belt, etc.).
- Observe all warning signs and notices; they have been installed for your protection.
- Comply with all safety and health regulations, procedures, and practices, including the use of approved personal protective equipment.

- Keep your work area in a safe and healthful condition through proper maintenance of property and equipment. Immediately report safety hazards and unsafe working conditions.
- Keep physically and mentally fit to meet the job requirements.
- Drive defensively and professionally; extend courtesy in all situations; and obey all state, local, and postal regulations when driving a vehicle owned, leased, or contracted for by the Postal Service.

Other safety rules may apply to your job. Perform your duties in the safest possible manner at all times. If you have questions about how to do your job safely, ask your supervisor.

B. Environmental Protection

- Comply with environmental protection regulations, procedures, and practices.
- Participate in pollution prevention by reducing waste, recycling, and reusing materials.
- Conform to Clean Air Act requirements by carpooling or using public transportation.

C. Office Safety

- Keep unattended drawers and doors closed in desks, file cabinets, etc., to eliminate tripping hazards or sources of cuts or abrasions.
- Open the top drawer of file cabinets slowly, standing to one side of the file cabinet. When you finish with one file drawer, close it before opening another.

- Fill the lowest drawer in a file cabinet first to reduce the chance of its tipping over. Place heavy objects in the bottom drawers.
- Keep the tops of file cabinets, bookcases, etc., free of files, papers, books, and any other materials.
- When seated, keep your chair firmly on the floor. Tipping it backwards on its rear legs invites an accident and possible injury.
- Don't operate or attempt to repair any office equipment or machinery unless you have been properly trained to do so.
- Handle typewriter cleaning fluids with care; some are toxic and others are flammable. (See Section IV.B. for specific guidelines on handling toxic and flammable items.)
- Keep desktop paper cutters in a closed, locked position when you are not using them.
- Exercise care when you use and store sharp or pointed instruments, such as letter openers, scissors, pencils, etc.
- Adjust video display terminals, chairs, and other equipment for maximum comfort.
- Guard office equipment with shields covering moving parts to prevent clothing, hair, or fingers from getting caught.
- Keep all debris picked up off the floor, especially rubber bands, straps, and paper clips.

1. *Obstructions*

- Keep all aisles clear of tripping hazards, such as waste baskets, electrical cords, protruding utility outlets, trash, etc.
- Keep your floor area dry. If you spill water or some other liquid on the floor, wipe the floor dry immediately to eliminate possible slipping hazards.
Call your supervisor for assistance when cleaning large spills.

2. *Climbing*

- When you must climb, use a step stool, ladder, or other equipment designed for that purpose. Don't climb onto chairs or other office furniture.

3. *Lifting*

- Lift with your legs instead of your back. Ask for assistance when the object is too heavy, is awkwardly shaped, or blocks your view when you carry it. (See Section VII.A. for more guidelines on lifting heavy objects.)

D. Elevators

- Load capacities are posted in elevators, both by pounds and by number of persons. Never exceed this limit for any reason.
- Repair an elevator only if you are qualified in elevator maintenance and repair.
- Don't use elevators during a fire emergency evacuation.
- Don't smoke in elevators.

- Be alert and watch your step when entering or leaving an elevator.
- Don't ride in freight elevators unless you have been authorized to do so.
- Don't use passenger elevators for freight.

E. Dock Safety

- Don't smoke anywhere on the docks or when you are loading or unloading trucks, trailers, vans, railroad cars, or any other vehicles.
- Never jump off the docks. Use approved steps or ladders.
- Close dump holes when you are not using them.
- Chock all trailers before loading or unloading them. Keep unused chocks out of walkways and stored against the dock.
- Store dock plates in an anchored, upright position.
- When using dock plates, secure them in position to keep them from slipping or sliding away.
- Always be aware of moving vehicles and equipment on the dock.

F. Rest Bars

- Don't place rest bars in positions beyond the last notch when adjusting the height. Make the height adjustment using only the notches provided; never use nails or other sharp objects for rest bar pins. Adjust the seat angle using only the slots provided in the seat support. Tilting the seat to its most forward position and resting the seat support against the welded stop is not allowed.
- Keep at least one foot on the floor (base) when using the rest bar. If you put one foot on the bar rest, your foot must be *on* the bar rest rather than inside. Never place your feet on case ledges when you are using the rest bar seat.
- After using the rest bar, fold the seat down flat and place it in a safe location, possibly near the working case. Be sure the seat support does not stick out.

SECTION II

Occupational Injury or Illness

A. Reporting Injuries or Illness

If you are injured or become ill from work-related causes, you must report immediately to your supervisor, even if the problem seems minor. Follow these procedures:

1. Treatment

You must receive authorized medical evaluation and treatment or first aid in accordance with procedures outlined in the *Employee and Labor Relations Manual* (ELM) 543. The lack of prompt attention to even slight injuries could lead to more serious complications.

2. Reporting

Your supervisor must contact the medical or health unit (if available) or the local emergency rescue or paramedic unit and report the type of injury and your location. Follow the procedures outlined in ELM 544. All reports must comply with the requirements of the Postal Service, the Office of Workers' Compensation Programs, and the Occupational Safety and Health Administration (OSHA).

3. Prevention

Your supervisor must investigate and evaluate each accident and take any necessary measures to prevent the recurrence of similar incidents.

B. Eye Injuries

- Don't permit a fellow employee to attempt to remove a foreign body from your eye. Have any eye injury treated immediately by professional medical personnel.
- If corrosive liquids, such as acids or other irritants, are splashed in your eyes, flush them thoroughly with clear, cold running water for 15 minutes. Call for assistance immediately (you may need help to hold your eyes open), and have the medical unit or emergency first aid facility contacted.
- Clean up spills in accordance with your local standard operating procedures and Section V.C. of this handbook.

C. Emergency First Aid Telephone Numbers

- Become familiar with emergency first aid telephone numbers and the procedure for obtaining emergency first aid when needed. (Use the inside cover of this handbook to list your local emergency phone numbers.)

Immediately notify your supervisor of any emergency.

SECTION III

Fire Prevention and Protection

A. Reporting Fire Hazards

- Report all suspected fire hazards to your supervisor immediately.

B. Emergency Evacuation

- Become familiar with your floor plan. You should know the location of and how to use all fire alarm stations, fire exits, and fire-fighting equipment for your facility in case of fire.
- Follow the directions given by the assigned fire brigade members and supervisors in your area.
- Evacuate your area immediately; don't go to your lockers to retrieve personal items.
- The use of elevators during an emergency evacuation is prohibited.
Exception: Employees with disabilities and their escorts may use elevators during an emergency, if necessary.
- Follow all fire evacuation procedures during fire drills as well as during an actual emergency.

C. Fire in Your Work Area

- Sound your local alarm first. Take any other required steps to alert fellow employees and the fire department to the fire.
- Don't engage in any disruptive actions or unnecessary talking that might prevent others from hearing and understanding instructions and directions.
- Move quickly, but don't run, to the nearest exit.
- Attempt to put out first-stage fires only if you have received training on how to use fire extinguishers and if you believe you can do so safely. If you have any doubt about your ability to extinguish the fire, leave the area. Remember, your own safety comes first.

Note: Postal personnel are not to fight fires involving the structure of the building.

- Some postal facilities may have electrical transformers which contain polychlorinated biphenyls (PCBs). If such transformers are in or near your building, the facility Emergency Action Plan should contain instructions for dealing with PCB transformer fires. Your supervisor or local safety personnel can provide you with information on the emergency action and fire prevention plans. **DO NOT ATTEMPT TO FIGHT A PCB FIRE YOURSELF. FIRES INVOLVING PCBs SHOULD BE REPORTED TO THE MUNICIPAL FIRE DEPARTMENT IMMEDIATELY.**

D. Fire-Fighting Equipment

- Fire hoses, hydrants, and sprinkler systems are for fire-fighting purposes and are to be used by municipal fire departments only.
- Promptly report to your supervisor the existence of any used or damaged fire extinguishers.
- Don't stack or store material within 18 inches of a sprinkler head. Report any deficiencies to your supervisor immediately.
- Don't lock (except with approved fire exit locking mechanisms) or obstruct exits, passageways leading to fire exits, or fire-extinguishing equipment such as fire extinguishers, alarm boxes, etc. This equipment must be kept accessible at all times.

E. Flammable Materials

- Store flammable liquids or solvents (up to 5 gallons) in approved bulk storage safety containers.
- Dispose of oily rags, or other flammable waste subject to spontaneous combustion, in closed metal containers.
- Properly label all cans to indicate their contents and store them in designated areas. Don't use spark or heat-producing devices in the vicinity of flammable liquids, vapors, or gases.
- Gases or vapors escaping from the contents of damaged parcels may be flammable. Follow your facility's hazardous materials standard operating procedures for handling these parcels.

F. Smoking

- Smoking is prohibited in all Postal Facilities.

Also, smoking is prohibited:

- While collecting or delivering mail.
- Within 25 feet of gasoline pumps, gas and oil storage tanks, spray paint operations, or other operations involving flammable liquids or gases.

SECTION IV

Personal Safety and Protective Equipment

A. Personal Safety

1. Clothing

- Wear sensible, properly fitting clothing to work. Oversized clothing, wide-flared pants, full dresses or skirts, full or flared sleeves on shirts or blouses, neckties, scarves, loose aprons, and similar clothing can be hazardous if you work with machinery, vehicles, or moving equipment. Such clothing is not acceptable apparel for the workroom floor.
- Do not wear neckties around moving machinery or automated equipment. If you must wear a tie, wear the clip-on variety.
- Dress appropriately for weather conditions.

2. Jewelry

- Don't wear jewelry such as necklaces, neck chains, pins, dangling earrings, bracelets, watches, watch chains, rings, etc., around moving machinery or exposed electrical circuits.

3. Hair

- If your hairstyle restricts either your forward or peripheral vision, or if your hair can become entangled in moving machinery or equipment, tie your hair back or otherwise confine it.

4. *Shoes*

- Wear appropriate work shoes, whether you walk many miles on a route or handle mail in the workroom. Wear shoes that are fully enclosed at the heel, toe, and sides, made of leather or a substantial synthetic material (canvas or nylon is not acceptable). The approved footwear for uniform program employees must have the SR./USA label.
- To eliminate slips, trips, and falls, don't wear the following types of shoes on the workroom floor:
 - Heels more than 1 and 1/2 inches and soles more than 1/2 inch in height.
 - Spiked heels, regardless of height.
 - Open shoes (including open sides, toes, or heels) such as thongs, sandals, mules, house slippers, clogs, wedgies, etc.
 - Heels with steel taps.
 - Shoes with cloth, nylon, or mesh-woven tops, such as tennis shoes, athletic or jogging shoes (except those with leather or leatherlike uppers), moccasins, etc.
 - Shoes no longer adequate because of disrepair.

B. Personal Protective Equipment (PPE)

Wear all personal protective equipment required by the USPS or by your supervisor for the jobs or tasks that you perform. If you have questions about PPE, when handling chemicals, refer to the Material Safety Data Sheet (MSDS).

1. *Eye and Face Protection*

- Wear eye and face protection that meets American National Standards Institute (ANSI) standards when working in areas where hazards exist that could cause eye injuries. You must wear the side shields with your safety glasses.

Safety goggles or face shields for the following types of work are **mandatory**:

- Handling or pouring acid or other corrosive chemicals.
 - Using an emery wheel or grinding, riveting, chipping, or sandblasting equipment.
 - Using compressed air for cleaning.
 - Working in areas designated as rewrap operations.
 - Working in laboratory situations where eye hazards exist.
- Never wear contact lenses in the presence of corrosive or irritating materials, especially in battery-charging rooms.
 - Wear proper eye protection of the correct shade when observing or performing welding operations. Use appropriate shielding to protect other employees' eyes from arc flashes. **Never** look at or in the direction of a welding arc without appropriate eye protection, as it can cause painful damage to your eyes.
 - Make sure that the lenses of all eye protection devices are free from cracks, chips, or obscurities; replace or repair such lenses immediately.

2. Hand Protection

- Wear gloves if there is a possibility of hand injury, such as when handling corrosive or contaminated objects. Don't wear gauntlet gloves around moving equipment, including conveyors.
- Use protective or barrier creams on your hands and arms if they are exposed to oils and greases, chemicals, or corrosive or irritating cleaning compounds.

3. Head Protection

- Wear hard hats when your work exposes you to falling objects, when there is a risk of striking your head against low stationary objects, when you are in areas designated for hard-hat protection (especially above floor level), or when you use such equipment as "lift-a-lofts," "vert-a-lifts," tow motors, forklifts, etc.
- Regulation hats, caps, or pith helmets are recommended for protection from the sun or cold for employees working outdoors.

4. Hearing Protection

- You may be required to wear hearing protection if noise levels cannot be controlled to below OSHA limits. Safety and health personnel will provide a selection of approved hearing protection devices and assist you with the fit and care of the devices. Hearing protection also will be made available if noise levels on your job exceed 85 decibels.
- Radio headsets are not a substitute for approved hearing protectors. Don't wear them in areas where hearing protection is required.

5. *Respiratory Protection*

- There may be situations where you are required to wear a respirator to protect you from exposure to toxic vapors, dusts, etc. Your supervisor or safety officer will provide approved respirators and instruct you, on the clock and on postal premises, in the proper fit and use of your respirator.
- Keep your respirator clean, inspect it frequently as instructed, and store it in a clean place.
- If your job requires the use of a respirator, you will be evaluated by a medical officer to ensure that you can wear one safely.

SECTION V

Housekeeping and Sanitation

Keeping your immediate work area clean is your personal responsibility. A neat, orderly work place is a safer place in which to work.

A. Personal Items

- The Postal Service provides you with lockers and changing rooms so you can keep clothing and other personal belongings out of operating areas. Keep your lockers clean, neat, and free from debris. Don't store items on top of your locker.
- Eat and store food and beverages only in authorized areas; don't store or consume them in restrooms.
- Dispose of food wastes, etc., only in receptacles intended for this purpose. You are responsible for disposing of your own food waste, wrappers, cans, etc.

B. Obstacles

- Keep aisles, passageways, stairways, exits, and all other walking areas free from obstructions at all times. Make sure that electrical panels, switches, fire-fighting equipment, exit doors, fire alarm stations, and postal inspector breakout doors are kept clear.

- Don't enter roped-off or marked areas where maintenance work is being done, or where hazardous or slippery conditions exist.

C. Spills and Leaks

- If a spill or leak occurs, notify your supervisor for immediate cleanup and repair, if needed. If the spilled substance is flammable, take every precaution to avoid possible ignition of the substance.
- If suspected harmful vapors or gases are escaping from a spill or related accident, leave the vicinity at once and notify your supervisor.
- Follow the regulations for cleaning up spills and leaks of hazardous materials. Refer to Material Safety Data Sheets (MSDS) for information on chemical spills or leaks.

D. Tools and Other Portable Equipment

- Keep all tools and other pieces of portable equipment in their assigned places when not using them.
- Use safety glasses when operating power tools. Safety glasses must meet ANSI criteria.

E. Cleaning

- Never mix cleaning compounds. The chemicals used in them, such as ammonia and chlorine, when combined, can form toxic or explosive mixtures.
- Remove dust by vacuuming rather than by blowing down an area with compressed air whenever possible.
- Rope off wet floor areas with high visibility safety marking rope and post “Wet Floor” signs until the floors are dry.
- Follow all vendors’ instructions regarding equipment, materials, and supplies.

F. Use of Compressed Air

- Use a vacuum rather than compressed air to remove dust, dirt, or other debris from your clothing or body. Using compressed air to blow dust, dirt, or debris off yourself is an extremely hazardous practice.
- Use air compressed at less than 30 psi for cleaning machinery, parts, etc., or use a hose that is equipped with a nozzle that will deadhead at less than 30 psi in case the outlet is obstructed.
- Wear eye protection which meets ANSI standards when you use compressed air.

SECTION VI

Machinery and Electrical Equipment

A. General Rules

- Treat all electrical circuits as “live” circuitry.
- Turn off all electrical equipment when you are not using it.
- Never overload an electrical circuit.
- Use Postal Service machinery and equipment only if you are trained and authorized to do so.
- Never operate defective machinery or equipment. Report all such machinery or equipment to your supervisor immediately. Complete and attach Form 4707, *Out of Order*, to all such equipment. Don't operate any equipment which has been red-tagged with this form.

B. Machine Guarding

Never operate equipment or machinery that is not properly guarded.

- Make sure that guards are in place on all drives, pinch points, and points-of-operation; keep all guards in place while the machine is in motion.
- Before starting machinery, make sure that everyone is in the clear and that guards and safety devices are in working condition and are properly adjusted.

- Keep all guards in place, securely fastened, and maintained in a functional condition.
- Don't remove, replace, or adjust a guard on moving machinery or equipment.
- Don't use the "stop" button to try to lock out equipment; it is not effective as a lockout device.

C. Emergency Stop Cords and Buttons

- You must be trained, on the clock and on postal premises, in the use of emergency stop cords, buttons, switches, etc., before you are assigned to a machine area.
- Keep all emergency stopping devices accessible, in plain view, and in operating condition. Report any defects to your supervisor immediately.

D. Conveyors, Sorters, and Other Mechanized Equipment

- Don't climb under or onto or cross over a conveyor, sorter, or other piece of mechanized equipment for any reason, unless the system is effectively locked out.
- Don't ride on any of this equipment.
- Turn off the equipment when freeing jams. Only trained maintenance personnel may clear a jam by mounting the equipment. Before clearing jams or working on this equipment, first lock out at the source of power. If two or more people are working on the equipment, they must all attach their own personal locks.

- Shut off equipment when you must search or pick up an item underneath it. Make certain the equipment cannot be started unexpectedly, thus exposing you to danger.
- Don't attempt to retrieve fallen, misthrown, or caught mail from moving equipment.
- If a conveyor stops, call a mechanic; don't try to restart it by pulling the belt or by using any method other than the designated start button.
- Don't overload conveyors, sorters, or other mechanized equipment.

E. Cords

- Never splice or patch electrical cords; replace them. Shorten a cord only if you are qualified to do so.
- When you disconnect electrical equipment, pull the plug rather than the cord.
- As much as possible, keep extension cords off the floor. If it is absolutely necessary to put such cords on the floor, use Underwriters Laboratories (UL)-approved or other certified testing laboratory-approved temporary floor covers to prevent tripping on or damaging the cord.
- Remove frayed or damaged electrical cords and replace them.
- Don't use extension cords as substitutes for permanent wiring.

F. Grounding

- If portable electrical tools are not double-insulated and labeled as such, make sure they are equipped with a 3-wire plug. Never cut off the ground connection.
- If the ground prong has been removed, don't use the equipment or tool until the plug has been replaced.

G. Tools

- In areas containing a potentially hazardous atmosphere, such as battery-charging rooms or spray-painting booths, use only approved nonsparking tools and explosion-proof equipment.

H. Lockout Procedures

- When working on power-driven equipment or electrical circuitry, make sure it is effectively locked out at the source.

I. Defective Equipment

- Remove all defective equipment from service immediately; tag it with Form 4707, *Out of Order*, and take it to be repaired or to be stored in the designated area for defective equipment. **DO NOT USE** tagged equipment until it has been properly repaired.

SECTION VII

Lifting and Material Handling

A. Lifting Guidelines

Lifting is so much a part of our everyday activity that most of us don't think about it, but it's often done incorrectly. The results can include strains, pulled muscles, disc lesions, or painful hernias.

Before lifting anything, check the immediate area and route of travel to be sure that no obstruction or hazard can cause a slip, trip, or fall, or a "striking against" accident.

The technique for proper lifting is simple:

- Assess the load. If it appears to be too heavy or bulky to lift comfortably, get help.
- Place one foot alongside the object being lifted and one behind. This method gives you greater stability and your rear foot gives you better upward thrust.
- Use the "sit-down" position and keep your back in a straight line (though not necessarily perpendicular to the floor). A straight back keeps your spine, back muscles, and organs in correct alignment and minimizes the compression of organs that can cause a hernia.
- Tuck in your chin so your neck and head are in a straight line with your back. That helps keep your spine straight and firm. It is not necessary, however, to force your chin against your chest.

- A palm grip is one of the most important elements of correct lifting. Keep your fingers and hands extended around the object you are going to lift, using your full palm. Fingers alone have very little power; you need the strength of your entire hand.
- Keep the load you are lifting drawn close, against your body; tuck your arms and elbows against your side. When your arms are held away from your body, they lose much of their strength and power. Keeping your arms tucked in also helps keep body weight centered.
- Position your body so that your weight is centered over your feet. This provides a more powerful line of thrust and also ensures better balance. Start the lift with a thrust of your rear foot.
- Avoid twisting during lifting; twisting is one of the most common causes of back injury. By simply turning your forward foot out and pointing it in the direction you are moving, you will avoid the greatest danger of injury.
- Don't fight to recover a dropping object or "lost load." Get out of its way and let it fall.
- Sudden lifting or releasing of loads can cause stress to the spine and back muscles. Always lift, move, and lower with smooth motions.

B. Material-Handling Equipment

- Inspect ropes, chains, cables, slips, jacks, skids, and other hoisting and rigging apparatus before using it.
- Report damaged or defective ropes, chains, cables, slings, straps, or other material-handling equipment or components to your supervisor.

- Never lift a load and leave it suspended or unattended. Don't exceed the lifting capacity of hoisting devices for any reason.

C. Portable Utility Platforms

Use portable utility platforms only if you are authorized to do so.

D. Hand Trucks, Hampers, and Containers

1. General Rules

- Don't ride, climb onto, or cross over any manually propelled rolling equipment.
- Push, rather than pull, all hand trucks, containers, hampers, and other such equipment. Your hands must not protrude beyond the sides of the container you are pushing. Don't manually tow containers.
- Never overload equipment or load it so high that it is top heavy.
- Orange-tag defective equipment. Use Form 4707, *Out of Order*, to report all defective equipment. Report defective equipment to your supervisor, and remove it to a designated storage area.

2. *Hampers*

- Keep clear of hamper dumpers in use. Avoid placing heavy objects, sacks of mail, or trays of mail in hampers. Place heavy packages on flat-bed trucks, rather than in hampers. If you must remove a heavy package from a hamper, tip the hamper onto its side and lift the package from the floor to avoid excessive strain on your back. Use proper lifting techniques.
- Use a coupler or similar device when towing hampers.
- Tow no more than three hampers, whether loaded or empty. Never attempt to tow hampers by holding them with one hand while you drive the tractor.
- Never stack hampers more than three high, either for storage or transportation. To unstack hampers, always get help from another person. Turn the nested hampers onto their sides before unstacking them.
- Make sure that any vehicle you use to transport a hamper, loaded or empty, is equipped with shoring bars or nylon webbing to prevent the load from shifting or rolling free.

3. *Containers*

- The term *containers* refers to general purpose mail containers (GPMC), Eastern Region mail containers (ERMC), BMC over-the-road containers (BMC-OTR), etc.
- When manually loading or unloading a container, set the brake, if one has been provided. If the container does not have brakes, place mail or equipment into the container rather than throw it, because the container may move if

jostled. Use at least two wheel chocks (front and back) to prevent movement when positioning a container on an uneven surface.

- Load the bottom shelf of a GPMC first. Unload it last. Use the restraining bar to hold the top shelf while it is in the raised position. When the container is not in use, store the shelves in the “down” position.
- Secure all containers that you load onto vehicles with shoring bars to prevent the load from shifting and rolling free. Place OTR-container tow pins in the floor sockets of trucks or vans.
- If a load has toppled against the mesh doors of an ERM, get assistance when removing the restraining bar. When pressure is placed against the mesh door, the restraining bar can be extremely dangerous because it acts like a spring when released.
- Always hold restraining bars, doors, and shelves with one hand to prevent them from falling when released, and stand to one side.
- When moving an ERM or GPMC, make sure that the center shelf is in the “down” position. Check the gate latch and shelf latch before loading or moving a container.
- Push containers from the swivel wheel end. Watch constantly for obstructions on both sides of the container.

SECTION VIII

Powered Industrial Vehicles

If you drive a powered industrial vehicle, you are responsible for the safety of the vehicle and for following all safety requirements. You must be trained and authorized to operate powered industrial vehicles, such as fork-lifts, lifting platforms, etc. Reckless operation of powered vehicles is strictly prohibited. Report any accidents involving a powered industrial vehicle to your supervisor immediately.

A. Operating Rules

1. General Rules

- Before using a powered industrial vehicle, check the brakes, steering apparatus, horn, etc. Report any defects to your supervisor immediately.
- The maximum speed limit for powered industrial vehicles is 5 miles per hour (about the speed of a fast walk). Use only the designated vehicle traffic lanes, and keep to the right whenever possible.
- Never use the reverse control as a brake.
- Never allow a passenger to ride on a powered industrial vehicle unless securely attached seating is provided. Never exceed the seating capacity of the unit.
- Never disengage, cover up, or bypass any audible or visual warning devices on powered industrial equipment.

- Don't ride with any part of your body protruding from the vehicle.
- Make sure that there is adequate clearance before you drive under any overhead obstruction.
- Approach all intersecting aisles and tow conveyor crossings slowly and cautiously. Sound your horn to warn pedestrians of your approach.
- Check to be sure there is a clear path to the rear before backing up.
- Stay at least three vehicle lengths behind other vehicles when traveling.
- Check bridge or dock plates for proper stability before you drive across them.
- Stop your vehicle, place the gear in neutral, and turn the ignition off before you dismount.

2. *Lift Trucks*

- Lift, lower, and carry loads on a lift truck with the lifting mechanism in a vertical position or tilted back — never forward.
- Face the direction in which you are moving and be careful of rear-end swing when turning corners.
- When approaching or leaving a building where the ramp incline is greater than 10 degrees, turn the lift truck so the load is on the upgrade side and cannot slip off the forks.
- Keep forks on a moving lift truck low (just high enough to clear any floor obstructions and low enough to clear overhead obstructions). Under normal conditions, 3 to 6 inches above floor level should be sufficient.

- Don't raise or lower forks while the fork-lift is in motion. When you park a lift truck, fully lower the forks, put the controls in neutral, shut off the power, set the brake, and remove the key.
- Before entering a truck or trailer with a fork-lift, inspect the floor for damage or decay which might cause the lift to break through.
- Make sure that the truck or trailer wheels are properly checked.

B. Protective Equipment

- Be sure that any powered industrial vehicle you operate is equipped with a horn and a flashing warning beacon that is in working order.
- Don't operate industrial lift trucks with the overhead guard removed.
- Wear a protective helmet while operating a powered industrial vehicle.

C. Towing

- Use only approved tow bars or coupling devices for towing. Don't use your hand to hold equipment being towed.
- Tow only three platform trucks, hampers, or containers (GPMC, ERM, BMC-OTR) whether loaded or empty. Attach no more than five containers to a driverless tractor unit.

D. Repairs

- Repair Postal Service vehicles only if you are a qualified and fully trained maintenance employee.

SECTION IX

Mail Delivery

A. Fingering Mail

- Never finger mail while driving, walking up and down steps or curbs, crossing streets, or at any other time the practice could create a safety hazard to you or the public.

B. Hazardous Conditions

- Pay close attention when you are walking to avoid lawn depressions, stones, bits of wood, children's toys, and other tripping hazards.
- You are not required to risk personal injury from icy steps, broken or rotten steps or porches, protruding nails or sharp edges on mailboxes, or similar hazardous conditions. Use Form 1767, *Report of Hazard, Unsafe Condition or Practice*, to report any of these problems to your supervisor.
- Alert replacement carriers to any hazardous conditions by completing Form 1766, *Hazard Warning Card*.

C. Mail Collection

- When you are picking up collections from a street box or a mail chute receiving box, or when you are delivering mail to apartment house boxes equipped with an arrow lock, remove the

key from the lock to avoid personal injury or damage to your clothing or keys.

- Keep the chain for your mailbox keys securely fastened to your belt loop and place the keys in your pocket when you are not using them. Dangling, swinging keys can be dangerous.
- Use Form 1767 to report defective, dented, or unanchored collection or relay boxes to your supervisor so that corrective action can be taken. Don't try to force entry to dented or otherwise defective collection or relay boxes.
- Always check the contents of mailboxes for broken glass, bottles, insects, or animals before placing your hands inside.
- Never stand in the street when loading or emptying mailboxes. Don't place mail in or collect mail from any boxes that require you to stand in the street. Use Form 1767 to report such boxes to your supervisor so that corrective action can be taken.

D. Animals and Insects

1. General Rules

- You are not required to deliver mail when you are threatened by an animal. Use extra care in making deliveries when dogs or other animals are loose on your route.
- Prepare Form 1778, *Dog Warning Card*, and place it in the letter case whenever you observe an animal that may interfere with the delivery of the mail. Place the card in front of the address where the hazard has been observed. In a situation where the dog poses a threat

throughout a segment of the route, case the card at an address most appropriate to provide advanced warning.

- In addition, report any such interference to your supervisor so that the customer may be notified that the animal must be restrained.
- Neither antagonize nor attempt to pet dogs. If a dog rushes toward you or takes you by surprise, don't run. Retreat very slowly, facing the dog. Keep your mail satchel between you and the dog as a first line of defense. Be careful not to stumble over objects as you retreat.
- Use dog repellent spray only if you are attacked. Spray it directly at the dog's nostrils. Don't use dog repellent indiscriminately or when there is a danger of spraying children or adults.
- When delivering mail through a door slot, keep your fingers out of the slot; an animal may be on the other side.
- When delivering mail at a customer's door, keep your foot on the door so that a dog cannot unexpectedly rush out at you.
- If rabies has been officially reported in the community where you are delivering mail, be especially observant of any dogs, cats, or wild animals.

2. Medical Treatment of Animal Bites or Insect Stings

- If you are bitten, get medical treatment immediately, regardless of the severity of the injury. Even small bites or contact with animal saliva can transmit rabies. Wash the area with soap and water as soon as possible.
- If you have severe or allergic reactions to insect stings, you must inform your supervisor and, if available, the medical or health unit. Use caution in removing mail from mail receptacles to avoid stings from any insects hidden inside.

SECTION X

Motor Vehicles

Vehicle accidents are a major source of serious personal injury for postal employees. Defensive driving is the best way to prevent vehicle accidents because it involves both the desire and the ability of a driver to control accident-provoking situations. You are expected to drive all Postal Service vehicles in a dependable, efficient, safe, and courteous manner.

A. Licenses

- Only authorized personnel can operate Postal vehicles. You must have in your possession a valid state driver's license when operating a postal vehicle or any vehicle on postal business. (State driver's licenses are not required for operating powered industrial vehicles on postal premises.)
- Inform your supervisor immediately if your state driver's license is revoked or suspended.

B. Civil Laws

- Obey all state and local vehicle codes when driving any Postal Service vehicle. You will receive no special privileges or rights as a postal driver. Police citations for traffic violations are your personal responsibility. Promptly report to your supervisor all traffic violations committed while on duty.

C. Reporting Accidents

If you are involved in an accident:

- Stop at the scene.
- Aid or assist any injured person.
- Have someone call for an ambulance or the police, if necessary.
- Safeguard the scene against any further accidents.
- Safeguard the mail.
- Try to identify several witnesses.
- Promptly notify your supervisor.
- Follow the instructions in your *Accident Report Kit*, Item 087-H, and any local accident reporting instructions.

D. Vehicle Regulations

1. Vehicle Safety Inspections

- Make a daily safety check of your assigned vehicle as outlined in Notice 76, *Expanded Vehicle Safety Check*, before leaving the post office parking lot or garage. Rural carriers are not required to perform this inspection except when they are using a postal-owned or -leased vehicle.
- Check to make sure that a sealed *Accident Report Kit* (Item 087-H) is provided inside your assigned vehicle.
- Use Form 4565, *Vehicle Repair Tag*, to report all mechanical defects, failures, and vehicle damage to your supervisor.

- Handbook PO-701, *Fleet Management*, 243.1 requires that vehicles of one ton or larger regularly scheduled for intercity or airport runs, or vehicles regularly scheduled for use as wreckers, must carry a fire extinguisher and emergency warning device kits.

2. *Safety Belts*

- You must wear safety belts at all times the vehicle is in motion. When driving a long life vehicle (LLV), you must wear the lap belt and shoulder belt whenever the vehicle is in motion. **Exception:** When shoulder belts prevent you from reaching to deliver or collect from curbside mailboxes, you may unfasten the shoulder belt, but never the lap belt.
- You may carry only authorized passengers. All passengers must remain seated and wear a lap belt and shoulder harness whenever the vehicle is in motion.
- Rural carriers must follow the policy outlined in Handbook PO-603, *Rural Carriers Duties and Responsibilities*, 171.5.

3. *Doors*

- When you are traveling to and from your route, when you are moving between park and relay points, and when you are entering or crossing intersecting roadways, you must be sure that all vehicle doors are closed.
- All vehicle doors must be secured when the vehicle is left unattended and out of the driver's immediate sight.

Exceptions

- The Postal fleet includes a number of 1-ton, 2-ton, and 2.5-ton “step-van” style vehicles that have left-hand drive cab compartments with sliding doors, and closed cargo areas. When driving these vehicles, keep the rear door closed, and close the left door when the vehicle is in motion. You may leave the right door open, however, if there is no passenger, mail, or loose equipment in the cab area and the cargo partition is closed.
- When you are operating a vehicle on delivery routes and traveling in intervals of 500 feet (1/10 mile) or less at speeds no greater than 15 miles per hour between delivery stops, you may leave the door on the driver’s side open.

4. *Fueling*

- Shut off the motor before fueling a vehicle.
- Don’t smoke within 25 feet of gasoline pumps or gas or oil storage tanks.
- Be sure the nozzle of the pump hose touches the edge of the tank to avoid static sparking.
- Know where the emergency shut-off switch for the fuel pump is located.
- Be sure that a fire extinguisher is located nearby.

5. *Engine Exhaust*

- The gas released by internal combustion engines, carbon monoxide, is odorless, tasteless, colorless, and deadly. Therefore, hook up exhaust hoses to vehicles before you run an engine inside a building, or make sure there is adequate ventilation.

- Check exhaust hoses periodically for splits, cracks, or other deterioration.

6. Tire Safety Cages

- To inflate or deflate tires mounted on split rims, place them in an approved tire safety cage. Mount or dismount split rim wheels only if you have been trained to do so.
- When inflating a tire in the safety cage, use a clip-on air chuck with a remote valve so that you can stand clear.

E. Driving Regulations

1. General Rules

- Never finger mail or hold it in your hands while you drive.
- Move your vehicle only when you are absolutely certain that it is safe to do so, especially if children may be nearby. If necessary, get out, circle your vehicle, and check underneath it to make sure.
- Yield the right of way and make any other concessions necessary to avoid an accident.
- Always maintain a safe stopping distance, being especially careful during adverse weather.
- When following another vehicle in clear weather, you can judge the necessary distance between it and your vehicle by using the 2-second rule. Choose a landmark. When the vehicle ahead of you passes it, begin to count, "One thousand and one, one thousand and two." If you pass the landmark before you reach "one thousand and two," you are following too closely. During

adverse weather, stay farther behind the vehicle in front of you. If you are following larger trucks (1-ton or more), increase the time lapse to 4 seconds.

- Use your turn signal before turning, changing lanes, or pulling to or away from the curb or shoulder of the road.
- Enter all unregulated or unprotected intersections slowly and cautiously. Slow down and don't enter the cross street until you are sure you can do so safely.
- Before entering any intersection, slow down and look left, then right, then left again. Remember that danger is always closer from the left when the roadway is two directional.
- Never wear headphones or any other device that can diminish your hearing while you are operating a motor vehicle.

2. *Speed*

- Always drive at a safe speed. Never exceed the speed limit, but keep in mind that under certain conditions the posted speed limit may not be the safe one.

3. *Backing Up*

- Avoid backing up whenever possible. If you can, park where you will not have to back up to pull away from a parking place. If you must back up, first walk around your vehicle to make sure there are no pedestrians, children, obstructions, etc., in your way.
- When backing a large vehicle, have someone guide you whenever possible. The guide should stand to the side and rear of the vehicle and use

hand signals, not oral directions. Never allow the guide to get out of your vision, especially behind your vehicle; you might unknowingly crush the guide against some object. Even when you use a guide, it is your responsibility to back up safely. Use both rear view mirrors and have them properly adjusted.

- Drivers who are required to turn a vehicle around in one continuous operation (such as rural carriers making turnarounds) must use extreme caution when backing up.
- Look, listen, and *live* at all railroad crossings.
- Obey all highway rail crossing warnings.

4. *Parking*

- Whenever you park your vehicle, turn off the engine, remove the key, place the gear selector in park, and set the parking brake. If the vehicle will be out of your sight, lock it.
- When parking a vehicle uphill, turn the front wheels away from the curb. When parking downhill, turn them into the curb.
Remember: “uphill-out,” and “downhill-in.”

5. *Passengers*

- Ride in postal-owned, GSA-owned, rental, or contract vehicles (including employees’ privately owned vehicles when used in postal operations) only if you are authorized to do so. All passengers must use safety belts.
- If conventional passenger seats are not provided, use an approved auxiliary seat which faces forward and is equipped with a backrest and safety belts. Never stand in a vehicle that is in motion.

6. *Loading*

- Make sure that any mail you load into a vehicle will pose no hazard to the operator when the vehicle is started, stopped, turned, or otherwise operated on a mail delivery route. Don't place large parcels, bulky items, or bundles of mail on the tray or ledge to the extent that they can obscure your vision or break the windshield during a sudden stop.
- Always use proper lifting techniques when loading mail into a vehicle.

7. *Parking Lots*

- Park in designated parking spaces only.
- Use designated traffic lanes only.
- Observe posted speed limits. Unless posted otherwise, the maximum speed is 10 mph.
- Follow one-way directional signs in traffic lanes.
- Observe traffic signals when entering and leaving postal premises.
- Don't throw litter in parking lots. Use receptacles that are provided.
- Obey all posted signs in the parking and access road areas.
- Don't park in or block fire lanes.

SECTION XI

Air Mail Facilities

The complex nature of airport operations can pose special dangers to postal employees. Learn to recognize and be aware of hazards that may arise from aircraft, intense noises, and fueling operations. These hazards can be overcome by proper training and constant awareness.

A. General Rules

- Move Postal Service vehicles at airports only if you have been specially trained, qualified, and authorized to do so.
- Smoking is not permitted in Postal facilities including air mail facilities. Don't smoke on airport service ramps or in the vicinity of pouch racks. Smoke only in designated areas at airports.

B. Operator and Vehicle Regulations

- Before leaving your post office facility, make sure that your vehicle contains at least one-half tank of gas, a fully charged fire extinguisher, and any required emergency equipment.
- You must yield to all emergency vehicles responding to an alert. This includes crash and rescue vehicles, fire trucks, security or police cars, etc.
- Use only the exact travel route designated by your supervisor to reach the point of entry to an airport service ramp.

- Approach an aircraft only after all engines and propellers have been completely stopped. Your vehicle may come no closer than 5 feet to any part of an aircraft at any time.
- Never drive across passenger loading lanes while an aircraft is at a gate position.
- Don't drive under any part of an aircraft.
- Always wear ear protection devices in the presence of operating aircraft.
- The tail end of an aircraft can be as hazardous as the front. Running engines blast dirt, debris, and other solid objects with a force strong enough to break windshields and to cause eye injury or bone fracture. Take immediate shelter if you are about to be caught by a blast from the engines of an arriving or departing aircraft.

Distribution

Initial. This document will be stocked at the material distribution centers.

Additional copies. Order from your material distribution center by using Form 7380, *MDC Supply Requisition*.

Comments and Questions

Content. Address comments or questions regarding the content of this document to:

SAFETY AND RISK MANAGEMENT
EMPLOYEE RELATIONS
US POSTAL SERVICE
475 L'ENFANT PLAZA SW RM 9801
WASHINGTON DC 20260-4236

Clarity. Address suggestions about this document's organization or language to:

CORPORATE PUBLISHING AND INFORMATION
MANAGEMENT
US POSTAL SERVICE
475 L'ENFANT PLAZA SW RM 2800
WASHINGTON DC 20260-1540

U.S. POSTAL SERVICE
SAFETY AND WORKPLACE ASSISTANCE
HUMAN RESOURCES
WASHINGTON DC 20260-4231

Handbook EL-812
Hazardous Materials and Spill Response

May 1998



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Part I

INTRODUCTION

This is a guide to the proper handling of hazardous materials through the U.S. mails. It is an educational and safety tool to be used in conjunction with postal guidelines.

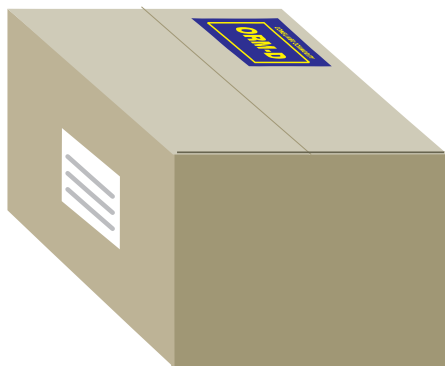
In the event of a hazardous material release, it is important that trained personnel are able to quickly assess and determine whether an *incidental* or *emergency release* is occurring. The ability to distinguish between these two categories of releases will largely determine what response procedures should be followed.

If you have not taken BBP or HAZWOPER training at either the Awareness or Operations level, you should not become involved in responding to a hazardous chemical or infectious substance release. If you should notice a leaking package, your only duty is to immediately notify a trained Hazardous Material First Responder that a potential hazardous chemical or infectious substance release has occurred. When in doubt, check with your supervisor, operations level responders, plant or district safety specialists. Play it safe and err on the side of safety. (See Part VII of this handbook.)

Part II

TITLE 18

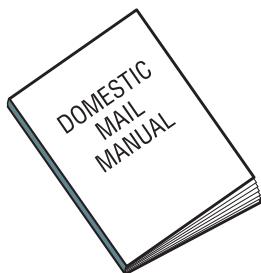
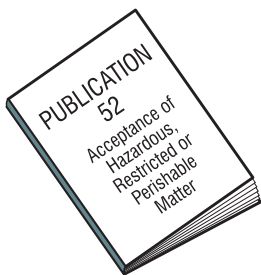
It is a federal crime, punishable by fines and imprisonment, to place in the mails any "...natural or artificial article, composition, or material which may kill or injure another, or injure the mails or other property..." [18 U.S.C. Section 1716(a)]. This statute allows the Postal Service to permit the mailing of small quantities of some injurious articles under regulations prescribing conditions of preparation and packaging [18 U.S.C. Section 1716(b)]. (See Publication 52, *Acceptance of Hazardous, Restricted or Perishable Matter* and Part VI of this handbook.)



Part III

POSTAL REGULATIONS

The Postal Service accepts limited quantities of potentially hazardous materials for mailing. The material allowed is generally consumer commodity ORM-D material that is in quantities small enough to present little hazard to life, health, or property. The conditions of preparation and packaging under which such materials are acceptable are stated in *Domestic Mail Manual (DMM)* and in Publication 52, *Acceptance of Hazardous, Restricted or Perishable Matter*. Particular conditions applicable to mailings of hazardous materials to foreign addresses are stated in the *International Mail Manual (IMM)*.



Part IV

HAZARDOUS MATERIALS AND THE USPS

WHAT ARE HAZARDOUS MATERIALS?

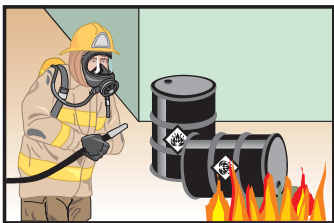
Hazardous materials are chemicals or infectious biological substances that may pose risks to the safety and health of USPS employees (if not handled or used appropriately). Some USPS operations involve the use of small quantities of hazardous chemicals. In addition, certain limited types and quantities of hazardous chemicals and infectious biological substances are mailable and may be found in the USPS mailstream.

HAZARDOUS CHEMICALS CHARACTERISTICS

Hazardous chemicals are characterized by their flammability, corrosivity, reactivity, or toxicity. Some chemicals may exhibit more than one of these characteristics at the same time.

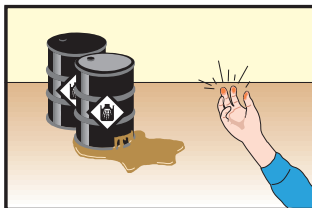
Flammable Materials

- Can burn and/or explode.
- Include liquids with low flash points, flammable solids, flammable compressed gases, and oxidizers.
- Can spread to areas containing combustible materials.
- Examples: Lighter fluid, highway flares, aerosol paint, gasoline.



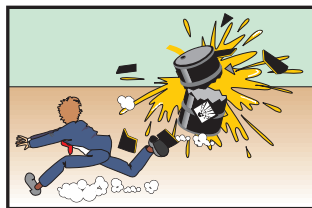
Corrosive Materials

- Can eat through containers and combine with other chemicals.
- Can burn skin and eyes on contact.
- Can appear harmless until contact produces harmful effect.
- Examples: caustic soda, hydrochloric acid, drain cleaner.



Reactive Materials

- Can explode, ignite or produce toxic vapors when exposed to air, water, or other materials.
- Can create hazards much more severe than the materials themselves.
- Can take extended periods of time to develop.
- Examples: fireworks, chlorine, ammonia.



Toxic Materials

- Can enter the body through inhalation, ingestion, skin absorption, or injection.
- Include poisons that may create acute or chronic health effects (**acute effects** are immediate and short-term; **chronic effects** develop over time and are long-term).
- Examples: Lead, asbestos, chlorine.



HAZARDOUS CHEMICALS FOUND AT USPS FACILITIES

A variety of hazardous chemicals are commonly used in daily USPS activities and operations or found at typical USPS facilities.

Hazardous Chemicals

- Acetylene - welding and cutting equipment.
- Gasoline - motor vehicles and motorized equipment.
- Bleach - cleaning.
- Paint and thinner - painting.
- Ammonia - cleaning.
- Inks - cancellation and printing.
- Insecticides - pest control.
- Caustics - janitorial supplies.
- Isopropyl Alcohol - removal of coating ink.
- Hazardous wastes - from the above operations.
- PCB's and asbestos - transformers and insulating materials.
- Lead-water supplies and paint.

The USPS is actively involved in reducing the presence and use of hazardous chemicals in the workplace through a variety of chemical reduction and pollution prevention initiatives.

HAZARDOUS MATERIALS ACCEPTED FOR MAILING

The USPS accepts limited quantities of certain specified ***hazardous materials*** for mailing. Generally these hazardous materials are considered to be consumer commodity ORM-D materials and are not accepted in quantities large enough to present a serious hazard to safety or human health. Hazardous chemicals and specimens of infectious substances are only accepted if properly packaged and labeled according to strict USPS regulations.

INFECTIOUS SUBSTANCES CHARACTERISTICS

Infectious Substances are characterized by their ability to cause infection and disease. The disease causing agents found in some infectious substances are known as bloodborne pathogens (BBP).

INFECTIOUS SUBSTANCES FOUND AT USPS FACILITIES

Several types of infectious substances may be encountered at USPS facilities and operations.

Infectious Substances

- Mailed biological substances - specimens of blood, urine, tissues, and secretions.
- Medical wastes - used syringes, bandages.
- Blood or other bodily fluids associated with an injury or illness.



Biohazard

Part V

RECOGNITION AND HANDLING

HAZARDOUS MATERIALS RECOGNITION

Hazardous chemicals and infectious substances can be identified by warning labels affixed to a container or package. Warning labels are generally your first source of information about chemical or biological hazards. They must be affixed to bags, bottles, boxes, drums, and all other chemical containers except those used to transfer chemicals. Labels for packages containing **chemicals** must include:

- The name and identification number of the chemical, except for ORM-D material
- All appropriate hazard warnings

The name and identification number on the label can be used to find the corresponding material safety data sheet (MSDS), which will provide you with more detailed information about the chemical. In addition, the appropriate hazard warnings can provide you with information about potential dangers associated with the chemicals. Labels for packages containing **infectious substances** must carry the biohazard symbol or the package must be red in color.

Descriptions of common labeling schemes and representative labels are presented below. In addition, common Department of Transportation (DOT) hazard warning labels are presented on the inside front cover of this guidebook. You may encounter other types of labels not mentioned in this handbook.

(Note: Any parcel required to bear a DOT diamond shaped class label (except "Infectious Substance 6" and "Class 9 Miscellaneous Hazardous Materials - Dry Ice") is non-mailable. If a parcel bearing any of these labels is found in the mailstream, follow procedures in Postal Operations Manual (POM) 139.117-118.)

The “Written” Label

This label provides comprehensive information on the chemical in the container in a written format. It includes hazard warnings, precautions for use, and appropriate first aid measures.

Chlorine Bleach

HAZARDS
 Strong Oxidizer. Temporary eye injury
 Irritant. Skin
 Hazards to humans and domestic animals.

WARNING!
 DO NOT USE OR MIX WITH OTHER HOUSEHOLD CHEMICALS. TO DO SO WILL RELEASE HAZARDOUS GASES.
 Avoid contact with eyes, skin, and clothing.
 Harmful if swallowed.
 Flush drains before and after use.
 Wash thoroughly after handling.

FIRST AID: If in eyes: remove contact lenses; rinse with plenty of water for at least 15 minutes. If swallowed: drink a glassful of water. In either case, call a physician. If contact with skin: immediately remove contaminated clothing and wash skin thoroughly with water.

For additional information, see Material Safety Data Sheet (MSDS) for this chemical.
 The Bleach Co. 1 Industrial Dr. Fresno, CA 93728

The “NFPA” Label

The National Fire Protection Association (NFPA) label is a diamond, divided into four smaller diamonds with each one representing a color-coded hazard category. Red represents flammability. Blue is health. Yellow is reactivity. White is used for special hazards. These hazards are rated on a scale of zero to four, with zero being a non-hazard and four being extremely hazardous.









The “HMIS” Label

The Hazardous Material Identification System (HMIS) label is similar to the NFPA label, but uses colored bands instead of diamonds to represent the type of hazard being described. The type of hazard is printed within each band and the zero to four NFPA rating for physical hazards is used. There is a band for personal protective equipment which uses alphabetic codes ranging from A to K. Each code is geared to specific personal protective gear.



The “CHIT” Label

The Chemical Hazard Identification and Training (CHIT) label uses symbols combined with brief written descriptions to convey hazard warnings.

NAME _____		CAS# _____	SPECIAL HAZARD	PERSONAL PROTECTIVE EQUIPMENT
DANGER				
FIRE HAZARD	REACTIVITY			
 COMBUSTIBLE FLASHPOINT 100-200°F	STABLE UNDER NORMAL CONDITIONS	 OXIDIZER		 GLOVES
HEALTH HAZARD				 GOGGLES
 EYE IRRITANT	 SKIN IRRITANT			

The “DOT” Label

The Department of Transportation (DOT) label classifies hazardous materials by either their hazard class number or class name. The labels are diamond-shaped, color-coded, and contain a symbol and hazard class number.



The “International Biohazard” Symbol

The biohazard symbol indicates contaminated or potentially infectious material. Red containers may be substituted for biohazard warning labels.



Biohazard

Particularly in the case of mailstream packages and parcels containing hazardous chemicals or infectious substances, appropriate hazard warning labels may not always be present. In these instances, if you suspect that a parcel may contain hazardous chemicals or infectious substances, you should pay attention to other indicators such as the following package characteristics.

Package Characteristics

- Sound of broken glass or plastic.
- Stain or unusual odor.
- Address information (e.g., chemical company, laboratory, medical facility, school).

SAFE HANDLING OF PARCELS SUSPECTED OF CONTAINING HAZARDOUS MATERIALS

Parcels suspected of containing hazardous chemicals or infectious substances should be handled carefully. If you suspect that a parcel may contain such materials you should follow appropriate guidelines.

Guidelines for Handling Parcels Suspected of Containing Hazardous Materials

- Do not throw, drop, or slide articles that are believed to contain hazardous or infectious materials.
- Transport parcels containing hazardous materials in reliable carts.
- Store parcels containing hazardous materials in an isolated area away from work traffic flows.
- Separate and store radioactive materials at least 10 feet apart.
- Separate corrosives, flammable solids, oxidizers, and organic peroxides during transport and storage.
- Place parcels containing hazardous materials on the top center of a cart and secure them before moving the cart.
- Never leave hazardous materials unattended.

If a parcel is leaking or broken, follow the emergency procedures described in Part VII of this handbook.

Part VI

ACCEPTANCE AND REFUSAL

ACCEPTANCE AND REFUSAL

The USPS accepts limited quantities of hazardous materials for mailing. The quantities allowed are small enough so that the materials present little hazard to life, health, or property. The items that are generally accepted are Other Regulated Materials Class D (ORM-D) materials (consumer commodities).

Customers should be advised as to what materials are mailable prior to mailing. The following documents provide guidance on the mailability of hazardous materials.

- Poster 76, *Hazardous Materials*
- Notice 107, *Hazardous Materials*
- Publication 52, *Acceptance of Hazardous, Restricted, or Perishable Matter*
- *Domestic Mail Manual (DMM)*
- *International Mail Manual (IMM)*

Acceptance clerks may refuse a parcel containing hazardous materials if it is determined that the item does not meet USPS acceptance criteria. The references listed above may be used by mail acceptance personnel when deciding when and under what conditions hazardous, restricted, or perishable material may be accepted for mailing.



- Technical questions may be referred to the nearest Rates and Classification Service Center. (See page 23.)
- If a material believed to be hazardous and non-mailable has entered the mailstream, it should be temporarily held from dispatch and delivery and reported to the Inspection Service, per POM 139.117.

- If the mailer desires a review of a decision, the postmaster should refer a sample or complete statement of the facts sent to the RCSC per DMM G020.3.0.

Dispatch any hazardous material mailable article as an outside piece only.

PACKAGING, LABELING, AND SHIPPER'S DECLARATION

Safe handling of hazardous materials requires proper packaging in order to protect customers, employees, equipment, and other mail. Customers should be informed of appropriate packaging, labeling, and "Shipper's Declaration" requirements.



Packaging requirements must be observed by acceptance personnel.

Packaging Requirements

- The weight of the contents of a parcel should not exceed the rating of the container. Packaging including containers, cushioning, closures and reinforcement must, at a minimum, meet the requirements of *DMM* and Publication 52.
- Cushioning must be sufficient to protect against breakage and to absorb the contents in case of leakage.
- Inadequate closure and reinforcement causes a majority of package failures. Pressure sensitive filament tape should be used for reinforcement. If other packaging tape is used, it must be at least two inches wide. A screw top closure must require at least 1 to 1 1/2 turns to open and should preferably be reinforced with plastic tape. Friction closures (such as paint cans) are unacceptable without reinforcing clips or rings.

All parcels containing hazardous materials must be appropriately and legibly marked. The following labeling requirements should be observed by acceptance personnel.

Labeling Requirements

- Both the delivery and return address must appear on every parcel and must be large enough to be legible at arm's length.
- The outside of parcels containing hazardous materials must be plainly labeled. The only exceptions are parcels containing controlled substances (*DMM* and Publication 52).
- With few exceptions, a shipper's declaration is required on hazardous materials which may be sent by air transportation.

When mail containing hazardous materials is received for transportation by air, a shipper's declaration must be prepared in accordance with DOT regulations. DOT regulations require a particular marking or warning label on each parcel. These procedures must be observed.

Shipper's Declaration Requirements

- Examine the parcel and check labeling.
- Verify that the shipper's declaration is complete and in triplicate.
- Make sure the shipper's declaration has been certified by the mailer.
- Make sure the shipper's declaration clearly identifies the parcel (as required by Publication 52 and Chapters 2 and 3 of the *IMM*).

Mailers are responsible for complying with other federal laws concerning mailable items such as drugs, guns, or plants. Clerks should refer mailers to the administering agency for specific information.



Part VII

RESPONSE TO HAZARDOUS MATERIAL INCIDENTS AND EMERGENCIES

WHAT OSHA REGULATIONS COVER HAZARDOUS MATERIALS?

At least three sets of Occupational Safety & Health Administration (OSHA) regulations must be followed depending on the nature of the release; Hazard Communication (HAZCOM), Hazardous Waste Operations and Emergency Response (HAZWOPER), and Occupational Exposure to Bloodborne Pathogens (BBP).

Hazard Communication

The HAZCOM standard requires that employees be informed of the hazards presented by the chemicals they work with through training, container labeling, MSDSs, and other forms of warning. The HAZCOM training teaches you about hazardous materials characteristics, and where to obtain information about chemicals that you encounter in the workplace. The HAZCOM training does not teach you how to respond to hazardous chemicals or infectious substances releases beyond notifying someone with more advanced training.

Hazardous Waste Operations and Emergency Response

The HAZWOPER standard applies to facilities where hazardous materials are handled or stored, and covers emergency response operations for releases of hazardous materials. The USPS recognizes two levels of HAZWOPER training: First Responder Awareness Level and First Responder Operations Level. The Awareness Level training does not teach you how to respond to hazardous materials releases beyond notifying someone with more advanced training. The Operations Level training teaches you how to respond to a hazardous material incident or emergency.

Occupational Exposure to Bloodborne Pathogens

The BBP standard applies to individuals who, through the course of their work, may be exposed to potentially infectious substances originating from either humans or animals. These materials may include blood, urine, tissues, and other infectious substances leaking from packages or resulting from a workplace accident. The BBP training



Biohazard

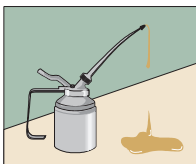
teaches you how to respond to a release of potentially infectious substances, how to protect yourself and others, and how to safely handle, dispose of and decontaminate materials contaminated by bloodborne pathogens.

The principal of “universal precautions” is to be used. That is, assume *all* human blood and certain human body fluids are potentially infectious for bloodborne pathogens.

WHAT IS A HAZARDOUS MATERIAL RELEASE?

A variety of hazardous chemicals are routinely used in day-to-day USPS facility operations (e.g., paints, inks, solvents, cleaners). In addition, certain kinds of chemicals or infectious substances are considered mailable (in limited quantities), and may be found in parcels that have entered the USPS mailstream. Occasionally, hazardous materials may spill, leak, or otherwise be released into the workplace or the environment. Such events can be categorized as being either ***incidental releases*** or ***emergency releases***.

An ***Incidental Release*** is a minor or non-emergency event that presents limited risk to the health and safety of employees. Such events are typically small in quantity, have little potential for human exposure, and involve materials of low toxicity. Still, incidental releases must be taken seriously. Any hazardous material release has the potential to evolve into a much more serious emergency if not confined quickly and responded to appropriately.



An ***Emergency Release*** is a more significant event and can result in major risks to the health and safety of employees and customers, as well as damage to the environment and USPS property. Such events constitute real or threatened emergency situations, and can involve fire, explosion, or severe chemical exposure. Generally, a coordinated response from an outside emergency response organization (e.g., fire department, hazardous materials response team) is required to safely contain, cleanup, or otherwise respond to an emergency release.



In the event of a hazardous material release, it is important that trained personnel are able to quickly assess and determine whether an incidental or emergency release is occurring. The ability to distinguish between these two categories of releases will largely determine what response procedures should be followed. When in doubt, check with your supervisor, operations level responders, plant or district safety specialists. Play it safe and err on the side of safety.

WHO MAY RESPOND TO HAZARDOUS MATERIAL RELEASES?

Only USPS personnel who have received the **HAZWOPER** training are qualified to respond to spills, leaks, and other incidental releases of hazardous chemicals or infectious biological materials. USPS personnel who have received **BBP** training are only qualified to respond to spills, leaks, and other incidental releases of infectious biological materials.

- **BBP Responders** are trained to assess the risks and hazards of a release of potentially infectious substances, respond and contain a release in a safe and defensive manner, and contact appropriate outside response personnel.
- **HAZWOPER Awareness Level First Responders** are trained to recognize and identify hazardous materials, understand the general risks associated with a release, and know how to contact or notify an Operations Level First Responder.
- **HAZWOPER Operations Level First Responders** are trained to assess the risks and hazards of a release, respond and contain a release in a safe and defensive manner, and contact appropriate outside response personnel as necessary. They also receive training as BBP Responders.

If you have not undergone BBP or HAZWOPER training at either the Awareness or Operations level, you should not become involved in responding to a hazardous chemical or infectious substance release. If you should notice a leaking package, your only duty is to immediately notify a trained Hazardous Material First Responder that a potential hazardous chemical or infectious substance release has occurred.

WHAT EMERGENCY RESPONSE PROCEDURES MUST BE FOLLOWED?

Following appropriate emergency response procedures quickly and correctly can reduce injuries, help save lives, and prevent damage to USPS property and the environment. Based on your level of training, the following general response guidelines should be followed if you witness or are called to respond to a hazardous material release.

HAZWOPER Awareness Level First Responder

- 1 Consider your and your co-workers safety.
- 2 Contact Supervisor who will contact "operations trained" personnel.
- 3 Isolate the spill if it is safe to do so.
- 4 Identify the hazardous materials released if it is safe to do so.

Awareness

isolate
contact

HAZWOPER Operations Level First Responder

- 1 Consider your and your co-workers safety.
- 2 Contact Supervisor who will contact "operations trained" personnel.
- 3 Isolate the spill if it is safe to do so.
- 4 Identify the hazardous materials released if it is safe to do so.
- 5 Determine if the release is incidental or emergency.

Operations

assess
identify
respond
contact

HAZWOPER Specialist Level First Responder

Safety Specialists, Environmental Compliance Coordinators and others have received specialist-equivalent training and are to be contacted for the following:

- 1 Assist Operations Level First Responders in determining if a release is incidental or emergency.
- 2 Liaison between hazmat emergency response personnel and facility personnel.

Specialist

resource
liaison

If Incidental Release:

- Determine safe clean-up and rewrap/disposal measures.
- Determine what PPE and other hazard control measures are needed.
- Follow actions indicated in the facility spill Standard Operating Procedure (SOP).

If Emergency Release

- Contact management, as needed, to evaluate the need for an outside response agency (hazmat team) or spill contractor.
- Follow actions indicated in the facility Emergency Action Plan (EAP).

Provide the outside Emergency Response team with pertinent information, including:

- Your name and the location of the release.
- Estimated amount of released material.
- Identity of material (chemical or trade name or description).
- Known hazards to workers or the environment.
- Conditions at the scene (fire, injuries, or property damage).
- Details about the nature of release (e.g., whether vapors are escaping into the air or the spill is spreading).

These response guidelines are applicable to hazardous chemical or infectious substance incidents that occur in the mailstream, as well as part of routine facility activities. The order in which you carry out the duties listed above will depend on the specific circumstances of each incident. ***Always remember that your responsibilities to respond to an emergency do not involve risking your life!***

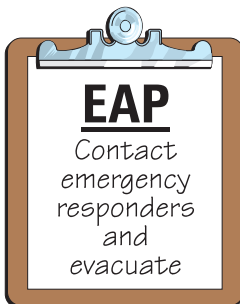
SITE-SPECIFIC EMERGENCY RESPONSE PROCEDURES

The hazardous material response procedures presented above are generic in nature. USPS locations (e.g., Processing and Distribution Center (P&DC), Bulk Mail Center (BMC), Vehicle Maintenance Facility (VMF)) are required to supplement these procedures with more detailed, facility-specific guidelines. Your facility-specific plans will give more guidance by preparing the following plans:



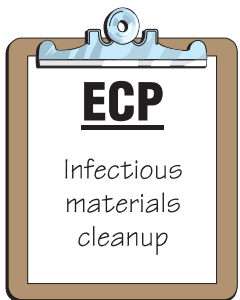
Standard Operating Procedures (SOPs) for Clean-Up of Spills and Leaks of Mailed Items address response to releases that occur in the mailstream. They may identify the following:

- Employees trained to manage spills and leaks.
- Specific clean-up teams and contractors.
- Personal protective equipment that must be worn.
- Other procedures critical to the safe and effective response to a hazardous material incident.



Emergency Action Plans (EAPs) cover a wide assortment of potential emergencies, including fire, explosion, and bomb threats. The EAP will identify the following:

- Address actions to be taken in the event of a hazardous material spill and leak.
- Safe evacuation procedures.
- Telephone numbers of outside emergency responders.
- Telephone numbers of facility's spill team.





Exposure Control Plans (ECPs) address exposure to infectious biological materials that may harbor bloodborne pathogens. They identify the following:

- Employee at risk for exposure.
- Procedures for handling, disposing of and cleaning up materials contaminated with bloodborne pathogens.
- Personal protective equipment.
- Communication of hazards to employees.
- Hepatitis B vaccinations.
- Medical follow-up.
- Recordkeeping.
- Procedures for implementing the plan.

You should seek information on and become familiar with your facility's specific SOPs, EAPs, and ECPs. These plans have been prepared to avoid confusion about what to do when certain situations arise. They should be followed to ensure safe and proper response.

HAZARDOUS OR INFECTIOUS MATERIAL INCIDENT REPORTS

Incident reports must be filed when a mailstream item produces injury, illness, significant property damage, or disruption to operations. Form 1770, *Hazardous Materials Incident Report*, is used to report such incidents. Contact your supervisor if you are involved in a hazardous or infectious material incident, and would like to provide input into the report.

 Hazardous Materials Incident Report <i>(See instructions on Reverse)</i>	
Description Date & Time of Incident _____ Address of Facility Where Incident Occurred _____	
Facility Type (BAG, AMF, etc.) _____	
Location (Principal site of incident) <input type="checkbox"/> Workroom (Operation No. _____) <input type="checkbox"/> Receiving <input type="checkbox"/> Dock Area <input type="checkbox"/> Aircraft/Ramp <input type="checkbox"/> Surface Vehicle <input type="checkbox"/> Other: _____	
Type (Check all that apply) <input type="checkbox"/> Leaking Parcel <input type="checkbox"/> Radioactive <input type="checkbox"/> Fire <input type="checkbox"/> Noxious Odor <input type="checkbox"/> Explosion <input type="checkbox"/> Other: _____	
Class (Check one that most likely caused incident) <input type="checkbox"/> Out-of-date in Handling <input type="checkbox"/> Defective Closure <input type="checkbox"/> Inadequate Packaging <input type="checkbox"/> Failure of Inner Receptacle <input type="checkbox"/> Internal Pressure <input type="checkbox"/> Other: _____	
Contents <input type="checkbox"/> Liquid <input type="checkbox"/> Solid <input type="checkbox"/> Gas <input type="checkbox"/> Powder Size (Length, depth, width) _____ Amount _____ Labeling _____	
Packing  Material _____ Inner Containers _____ Was Shipper's Certificate Affixed? <input type="checkbox"/> Yes <input type="checkbox"/> No (Was it Required?) <input type="checkbox"/> Yes <input type="checkbox"/> No	
Estimated Property Damage \$ _____ Estimated Work Hours Cost \$ _____ Estimated Cleanup Hours \$ _____ Other Costs \$ _____ Minor Exposure <input type="checkbox"/> Yes <input type="checkbox"/> No	
Number * _____ USPS Only? <input type="checkbox"/> Yes <input type="checkbox"/> No Form 1759, Accident Report, Filed? <input type="checkbox"/> Yes (Account No. _____) <input type="checkbox"/> No	
Narrative _____	
Follow-up Action (For MUST Complete This Section) When this incident is reported by contractor or employee packaged hazardous materials, record contact with the mailer as required by Management Instruction E-816-96-1.	
Your Superintendent/Facility Manager Printed Name, Title, and Signature _____ Date _____ Work Phone (Include Area Code) _____	

PS Form 1770, April 1997

FACILITY-SPECIFIC HAZARDOUS MATERIAL SPILL AND LEAK SOP

The Facility Hazardous Material Spill and Leak SOP designates personnel who will determine:

- The nature and hazards of the contaminant.
- Protective equipment required.
- Cleanup and disposal requirements.
- Special precautions and other actions.

If qualified spill response personnel are unavailable, enact your facility EAP, which may include calling the Fire Department and CHEMTREC (800-424-9300).

List Appropriate Numbers:

Facility-Designated Employees Tour I: _____
Who Are Hazwoper Trained: Tour II: _____
 Tour III: _____

Local Fire Department/Emergency Service: _____

Postal Inspectors: _____

CHEMTREC (24-Hour Number) 800-424-9300

Supervisors: _____

Postmaster: _____

APPENDIX A

RATES AND CLASSIFICATION SERVICE CENTERS

Northern Virginia

RATES AND CLASSIFICATION SERVICE CENTER
5904 RICHMOND HIGHWAY, SUITE 500
ALEXANDRIA, VA 22303-2736
703-329-3660

New York

RATES AND CLASSIFICATION SERVICE CENTER
1250 BROADWAY, 14TH FLOOR
NEW YORK, NY 10095-9599
212-613-8676

Chicago

RATES AND CLASSIFICATION SERVICE CENTER
3900 GABRIELLE LANE, ROOM 111
FOX VALLEY, IL 60597-9599
708-978-4329

Memphis

RATES AND CLASSIFICATION SERVICE CENTER
1 NORTH FRONT STREET
MEMPHIS, TN 38165-9599
901-576-2212

San Francisco

RATES AND CLASSIFICATION SERVICE CENTER
33 NEW MONTGOMERY STREET, SUITE 1690
SAN FRANCISCO, CA 94105-4514
415-247-7200

(For latest information see DMM G042 or the Postal Service intranet site)

APPENDIX B

REFERENCES

Postal Service Publications

Domestic Mail Manual, C023, Hazardous Material.

Handbook PO-507, Air Contracting Administrative Handbook.

Publication 52, Acceptance of Hazardous, Restricted or Perishable Matter.

International Mail Manual, Sections 135 and 136.

Postal Operations Manual, Sections 137 and 139.

Other Publications

Code of Federal Regulations, Title 49, Transportation, Part 100 to 185.

Available from:

SUPERINTENDENT OF DOCUMENTS
U.S. GOVERNMENT PRINTING OFFICE
WASHINGTON DC 20402-0001

Air Transport Restricted Articles, Circular No. 6-D.

Available from:

AIRLINE TARIFF PUBLISHING CO.
DULLES INTERNATIONAL AIRPORT
P.O. BOX 17415
WASHINGTON DC 20041-0415

Hazardous Materials-Emergency Response Guidebook

Available from:

MATERIALS TRANSPORTATION BUREAU
RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION
U.S. DEPARTMENT OF TRANSPORTATION
WASHINGTON DC 20590-0001

ICAO Technical Instructions

Available from:

INTERNATIONAL CIVIL AVIATION ORGANIZATION
ATTN: DOCUMENT SALES UNIT
1000 SHERBROOKE STREET WEST, SUITE 400
MONTREAL, QUEBEC
CANADA H3A 2R2

For additional copies of Handbook EL-812, *Hazardous Materials and Spill Response*, use Form 7380, *MDC Supply Requisition*, to order from your material distribution center.

Address comments or questions regarding this document to:
SAFETY AND WORKPLACE ASSISTANCE
UNITED STATES POSTAL SERVICE
475 L'ENFANT PLAZA SW
WASHINGTON DC 20260-4231

Management Instruction

Hazard Communication Programs

This instruction establishes responsibilities and procedures for informing employees on the identities and hazards of the chemicals they use, and for compliance with 29 Code of Federal Regulations 1910.1200, Hazard Communication.

Policy

Responsibilities

Headquarters

Safety and Risk Management, Human Resources develops policies and provides technical guidance relating to chemical hazard communication.

Maintenance Programs and Policies, Engineering establishes procedures (e.g., MS-1, *Operations and Maintenance of Real Property*) for implementing hazard communication programs for plant maintenance operations.

Fleet Maintenance, Operations Support establishes procedures for implementing hazard communication programs for vehicle maintenance operations.

Purchasing requires purchasing service centers to review requisitions for the presence of Environmental Protection Agency (EPA) targeted chemicals (see Field below).


Area Offices

Area Human Resources monitors and evaluates field hazard communication programs.

Field

Facility managers are responsible for ensuring that a hazard communication program is established for the facility that transmits information to employees on the hazards of chemicals they use by means of labels, material safety data sheets (MSDSs), and training.

Date	02/02/96
Effective	Immediately
Number	EL-810-96-2
Obsoletes	None
Unit	



Gail D. Sonnenburg
Vice President
Human Resources

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Policy

- Responsibilities
 - Headquarters
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- MSDSs Review

Attachment 1 OSHA 3084 Excerpts

Attachment 2 EPA List of 17 Chemicals Targeted for Reduction

Attachment 3 OSHA Memo on Consumer Products and Articles

Safety and health professionals assist management by coordinating with and advising maintenance and other managers on hazard communication programs, reviewing MSDSs, assisting with training, and inspecting for compliance.

Plant Maintenance, Vehicle Maintenance, and other managers and supervisors whose employees work with chemicals are responsible for inventorying chemicals used in the workplace and establishing a written program. They are also responsible for maintaining MSDSs at the work site or nearby as appropriate, checking that all containers are labeled when required, and ensuring the employees are trained to follow manufacturer's instructions and safety precautions in accordance with the standard's requirements.

Local officials responsible for procuring chemicals used for any purpose (e.g., cleaners, finishes, and solvents) coordinate with local safety and health offices to review MSDSs before purchase, and ensure that MSDSs for new products are supplied to maintenance and safety. (Consumer products and articles used in the same quantity and manner as in a home or household environment are exempt from hazard communication requirements (see Chemical Inventory)).

Purchasing specialists contact requiring activities to determine if products contain any of the 17 EPA targeted chemicals and recommend that the requiring activity seek an alternative when these chemicals are discovered.

All personnel who introduce chemicals into the workplace are responsible for ensuring that MSDSs are reviewed (in conjunction with safety and health) before use. The least hazardous substance that effectively and economically does the job is used (see Review and Use of Hazardous Chemicals). Responsible managers check that precautions on the MSDSs are followed to protect postal employees and customers. All contractors must have established a hazard communication program for their employees who use chemicals. When the Postal Service provides materials for contractor use (e.g., custodial supplies), MSDSs must be supplied to the contractors.

The Technical Training Center (TTC), Norman, OK, provides hazard communication training through the Postal Satellite Training Network (PSTN), the Postal Audio Training Network (PATN), and on-site (see Training).

Program Elements and Compliance

This section briefly describes program elements required by the hazard communication standard and ways in which field managers can comply. For more information refer to Attachment 1, OSHA 3084 Excerpts, and the text of the OSHA standard.

Chemical Inventory

A list of all hazardous chemicals used in the facility must be prepared and reviewed annually. Survey the facility and identify what is present and check procurement records. This is also a good time to eliminate unnecessary or toxic chemicals from the facility (see Review and Use of Hazardous Chemicals). Note that OSHA exempts consumer products and articles from the requirements of the standard if the frequency or duration of use does not exceed what a reasonable person would concede to be normal consumer use in a home or household environment. For example, a postmaster using an ammonia cleaner once a week to clean a lobby in a small office should be exempt, but a custodian using ammonia daily to clean restrooms should not be exempt.

Refer to Attachment 3 for OSHA's interpretation. The inventory list should be kept current and available in a central location (see 1910-1200 (f) (5) for details on how to conduct an inventory).

Written Program

A written program is the key OSHA program element. The TTC provides, on request, a generic written program on disk (see Training for a phone number). Additionally, there are many commercial suppliers of computerized hazard communication programs. OSHA considers the following elements to be critical:

1. Labels and other forms of warning.
 - a. Designation of maintenance persons responsible for ensuring labeling of in-plant containers.
 - b. A description of labeling system(s) used.
 - c. Procedures to review and update label information when necessary.
2. MSDSs.
 - a. Designation of maintenance persons responsible for procurement of chemicals, obtaining and maintaining MSDSs, and determining how safety will review MSDSs.
 - b. Procedures for maintaining MSDSs (e.g., notebooks in work area, computer files) and access by employees.
 - c. Procedures for actions when MSDSs are not received with first shipment.
3. Training.
 - a. Designation of maintenance persons responsible for conducting and administering training.
 - b. Format of the program to be used (PSTN, off-the-shelf, postal).
 - c. Elements of the training program (see 1910.1200 (h) (1) and (2)).

- d. Procedures to train new employees and to update current employees when a new hazard is introduced.
 - e. Procedures for training employees when contractors or other nonpostal persons may introduce a hazard (e.g., renovation, alterations projects).
4. Other Topics.
- a. Description and location of the inventory list.
 - b. Procedures for training employees on risks of nonroutine tasks.
 - c. Procedures for dealing with contractors.
 - d. Procedures for making the written program available to employees and unions.

Training

Employees must be trained at their initial work assignment or when new chemicals or operations are introduced. Managers and safety personnel must, based on inspections and evaluations, determine if and when refresher training of employees is warranted.

Postal training is currently available through the TTC. Contact the TTC staff at 405-366-4391.

To facilitate training of maintenance, custodial, and other employees who routinely work with chemicals, a short training course is under development that will supplement the longer and more technical courses. Availability to the field for local or PSTN broadcast use is planned for FY 96.

Safety and health professionals without prior hazard communication training should take the TTC courses EHS09-1 or -2, and EHS09-4. Training in basic industrial hygiene is also recommended (contact Safety and Risk Management for information on National Safety Counsel industrial hygiene training).

Maintenance managers and supervisors designated to manage aspects of the program should also take TTC courses EHS09-1 or -2 and EHS09-4.

Inspections and Evaluations

During annual and semiannual safety inspections, pay attention to program implementation. Include a review of the written program to ensure that it is current.

Managers and supervisors responsible for tasks involving the use of chemicals should routinely check labeling, use of safe work practices and personal protective equipment, and availability of MSDSs.

TTC Course

- **Hazard Communication EHS09-1 and -2 or -5** (technical aspects of the standard).
- **Hazard Communication Implementation EHS09-4 or -7** (establishing and managing a hazard communication program).
- **Hazard Communication OJT Facilitator EHS09-3 or -6** (facilitating local aspects of training sessions).

Review and Use of Hazardous Chemicals

MSDSs Review

Trained safety and health personnel assist with review of MSDSs. The goal is to determine if the ingredients pose a hazard during use, storage, transportation, and disposal. They consult with environmental compliance coordinators (ECC) as necessary. Technical questions should be referred to area human resource analysts, Safety and Health, ECCs, or Safety and Risk Management.

It is not always an easy task to determine if an ingredient poses an unacceptable or unnecessary hazard to employees, customers, or the environment. Chemical names can be confusing, MSDSs are not always fully informative or accurate, and an understanding of basic industrial hygiene concepts is often necessary. However, there are some basic rules of thumb when evaluating MSDSs. When feasible, avoid use of products that contain the following:

1. Flammable materials and mixtures. They pose fire and explosion hazards and storage problems, and are not mailable in many instances. Regulations vary, but any material with a flash point below 100 degrees Fahrenheit is considered flammable. Examples include acetone and methyl ethyl ketone.
2. Highly corrosive or irritating materials, e.g., concentrated sulfuric acid, hydrofluoric acid in any concentration, and concentrated sodium hydroxide. A pH between 4 and 11 is usually an indication of lower risk.
3. The 17 chemicals targeted by EPA for use reduction (see Attachment 2). Some of the chemicals are highly toxic and flammable and pose risks to the environment.
4. Highly toxic or carcinogenic chemicals. For toxic materials, two health hazard rating systems (the National Fire Protection Association and the Hazardous Materials Information System) use a scale from 0 (none) to 4 (severe). A rating of zero or 1 is preferable.
5. High VOC content or other potential environmental liability, e.g., regulated hazardous waste. Consult with the ECCs.

When determining if a product is suitable for use, persons evaluating the MSDSs should consider the need for personal protective equipment and respirators, trained and qualified personnel, and engineering controls (e.g., local exhaust), and take other precautions.

It is Postal Service policy to avoid the use of hazardous chemicals if possible, and to use the chemical that is the least toxic and hazardous to the environment available for the task. Few if any postal operations require use of chemicals with a high hazard potential.

Glossary

Acronyms

EPA
Environmental Protection Agency

MSDSs
Material Safety Data Sheets

OSHA
Occupational Safety and Health
Administration

PEL
Permissible exposure limit. OSHA regulatory
limits for employee exposure to a toxic
substance (see 29 CFR 1910.1000).

VOC
A volatile organic compound as referenced in
EPA clean air regulations.

Definitions

chemical
Any element, chemical compound, or mixture
of elements and/or compounds.

exposure
An employee is subjected in the course of
employment to a chemical that is a physical
or health hazard, and includes potential (i.e.,
accidental) exposure.

health hazard
A chemical for which there is statistically
significant evidence based on at least one
study conducted in accordance with
established scientific principles, that acute or
chronic health effects may occur in exposed
employees.

label
Any written, printed, or graphic material
displayed on or affixed to containers of
hazardous chemicals.

mixture
Any combination of two or more chemicals
where the combination is not, in whole or in
part, the result of a chemical reaction.

Note: Postal Service employees reviewing MSDSs are not responsible for the content of MSDSs. A detailed review for accuracy (e.g., flash points) is not necessary. (The Postal Service complies with revised OSHA PELs printed in 1989. MSDSs may cite earlier PELs due to a court case, but these should not be used to determine if employees are overexposed.) If a discrepancy or inaccurate information is noted (other than use of earlier PELs), it may be brought to the attention of the supplier. Suppliers may cite proprietary chemical information on the MSDSs. If further review (e.g., of health hazard information) indicates that a product may be hazardous, the Postal Service can request disclosure of ingredients, if necessary, through a medical officer or industrial hygienist, according to the OSHA standard.

Attachment 1
OSHA 3084 Excerpts

United States Department Of Labor

**Occupational Safety and Health
Administration**

Chemical Hazard Communication

U.S. Department of Labor
Robert B. Reich, Secretary

Occupational Safety and Health Administration
Joseph A. Dear, Assistant Secretary

OSHA 3084

1994 (Revised)

This informational booklet is intended to provide a generic, non-exhaustive overview of a particular standards-related topic. This publication does not itself alter or determine compliance responsibilities, which are set forth in OSHA standards themselves and the Occupational Safety and Health Act. Moreover, because interpretations and enforcement policy may change over time, for additional guidance on OSHA compliance requirements, the reader should consult current administrative interpretations and decisions by the Occupational Safety and Health Review Commission and the courts.

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This information will be made available to sensory impaired individuals upon request. Voice phone: (202) 219-8615; Telecommunications Device for the Deaf (TDD) referral phone: 1-800-326-2577.

Chemicals in the Workplace

About 32 million workers are potentially exposed to one or more chemical hazards. There are an estimated 575,000 existing chemical products, and hundreds of new ones being introduced annually. This poses a serious problem for exposed workers and their employers.

Chemical exposure may cause or contribute to many serious health effects such as heart ailments, kidney and lung damage, sterility, cancer, burns, and rashes. Some chemicals may also be safety hazards and have the potential to cause fires and explosions and other serious accidents.

Because of the seriousness of these safety and health problems, and because many employers and employees know little or nothing about them, the Occupational Safety and Health Administration (OSHA) has issued a rule called "Hazard Communication." The basic goal of the standard is to be sure employers and employees know about work hazards and how to protect themselves; this should help to reduce the incidence of chemical source illness and injuries.

The Hazard Communication standard establishes uniform requirements to make sure that the hazards of all chemicals imported into, produced, or used in U.S. workplaces are evaluated, and that this hazard information is transmitted to affected employers and exposed employees.

Chemical manufacturers and importers must convey the hazard information they learn from their evaluations to downstream employers by means of labels on containers and material safety data sheets (MSDSs). In addition, all covered employers must have a hazard communication program to get this information to their employees through labels on containers, MSDSs, and training.

This program ensures that all employers receive the information they need to inform and train their employees properly and to design and put in place employee protection programs. It also provides necessary hazard information to employees, so they can participate in and support the protective measures in place at their workplaces.

OSHA has developed a variety of materials and publications to help employers and employees develop and implement effective hazard communication programs.

Before explaining the details of various parts of the Hazard Communication standard, a brief overview of the design of the standard may be helpful. The Hazard Communication standard is different from other OSHA health rules because it covers all hazardous chemicals. The rule also incorporates a "downstream flow of information," which means that producers of chemicals have the primary responsibility for generating and disseminating information, whereas users of chemicals must obtain the information and transmit it to their own employees. In general, it works like this:

- Chemical manufacturers/importers determine the hazards of each product.

- Chemical manufacturers/importers/distributors communicate the hazard information and associated protective measures downstream to customers through labels and MSDSs

Employers

- Identify and list hazardous chemicals in their workplaces.
- Obtain MSDSs and labels for each hazardous chemical.
- Develop and implement a written hazard communication program, including labels, MSDSs, and employee training, on the list of chemicals, MSDSs, and label information.
- Communicate hazard information to their employees through labels, MSDSs, and formal training programs.

Hazard Evaluation

The quality of the hazard communication program depends on the adequacy and accuracy of the hazard assessment. Chemical manufacturers and importers are required to review available scientific evidence concerning the hazards of the chemicals they produce or import, and to report the information they find to their employees and to employers who distribute or use their products. Downstream employers can rely on the evaluations performed by the chemical manufacturers or importers to establish the hazards of the chemicals they use.

The chemical manufacturers, importers, and any employers who choose to evaluate hazards are responsible for the quality of the hazard determinations they perform. Each chemical must be evaluated for its potential to cause adverse health effects and its potential to pose physical hazards such as flammability. (Definitions of hazards covered are included in the standard.) Chemicals that are listed in one of the following sources are to be considered hazardous in all cases:

- CFR 1910, Subpart Z, Toxic and Hazardous Substances, Occupational Safety and Health Administration (OSHA), and
- Threshold Limit Values for Chemical Substances and Physical Agents in the Work Environment, American Conference of Governmental Industrial Hygienists (ACGIH).

In addition, chemicals that have been evaluated and found to be a suspect or confirmed carcinogen in the following sources must be reported as such:

- National Toxicology Program (NTP), Annual Report on Carcinogens,
- International Agency for Research on Cancer (IARC), monographs, and
- Regulated by OSHA as a carcinogen.

Written Hazard Communication Program

Employers must develop, implement, and maintain at the workplace a written, comprehensive hazard communication program that includes provisions for container labeling, collection and availability of material safety data sheets, and an employee training program. It also must contain a list of the hazardous chemicals in each work area; this means the employer will use to inform employees of the hazards of non-routine tasks (for example, the cleaning of reactor vessels) and the hazards associated with chemicals in unlabeled pipes. If the workplace has multiple employers on-site (for example, a construction site), the rule requires these employers to ensure that information regarding hazards and protective measures be made available to the other employers on-site, where appropriate.

The written program does not have to be lengthy or complicated, and some employers may be able to rely on existing hazard communication programs to comply with the above requirements. The written program must be available to employees, their designated representatives, the Assistant Secretary of Labor for Occupational Safety and Health, and the Director of the National Institute for Occupational Safety and Health (NIOSH).

Labels and Other Forms of Warning

Chemical manufacturers, importers, and distributors must be sure that containers of hazardous chemicals leaving the workplace are labeled, tagged or marked with the identity, appropriate hazard warnings, and the name and address of the manufacturer or other responsible party.

In the workplace, each container must be labeled, tagged or marked with the identity of hazardous chemicals contained therein, and must show hazard warnings appropriate for employee protection. The hazard warning can be any type of message, words, pictures, or symbols that provide at least general information regarding the hazards of the chemical(s) in the container. Labels must be legible, in English (plus other languages, if desired), and prominently displayed.

Exemptions to the requirement for in-plant individual container labels are as follows:

- Employers can post signs or placards that convey the hazard information if there are a number of stationary containers within a work area that have similar contents and hazards.
- Employers can substitute various types of standard operating procedures, process sheets, batch tickets, blend tickets, and similar written materials for container labels on stationary process equipment if they contain the same information and the written materials are readily accessible to employees in the work area.
- Employers are not required to label portable containers into which hazardous chemicals are transferred from labeled containers and that are intended only for the immediate use of the employee who makes the transfer.
- Employers are not required to label pipes or piping systems.

Material Safety Data Sheets

Chemical manufacturers and importers must develop an MSDS for each hazardous chemical they produce or import, and must provide the MSDS automatically at the time of the initial shipment of a hazardous chemical to a downstream distributor or user. Distributors must also ensure that downstream employers are similarly provided an MSDS.

Each MSDS must be in English and include information regarding the specific chemical identity of the hazardous chemical(s) involved and the common names. In addition, information must be provided on the physical and chemical characteristics of the hazardous chemical; known acute and chronic health effects and related health information; exposure limits; whether the chemical is considered to be a carcinogen by NTP, IARC, or OSHA; precautionary measures; emergency and first-aid procedures; and the identification (name, address, and phone number) of the organization responsible for preparing the sheet.

Copies of the MSDS for hazardous chemicals in a given work site are to be readily accessible to employees in that area. As a source of detailed information on hazards, they must be located close to workers and readily available to them during each work shift.

MSDSs have no prescribed format. ANSI standard no. Z400.1 — Material Safety Data Sheet Preparation — may be used. The non-mandatory MSDS form (OSHA 174) also may be used as a guide, and a copy can be obtained from OSHA field offices.

List of Hazardous Chemicals

Employers must prepare a list of all hazardous chemicals in the workplace. When the list is complete, it should be checked against the collected MSDSs that the employer has been sent.

If there are hazardous chemicals used for which no MSDS has been received, the employer must write to the supplier, manufacturer, or importer to obtain the missing MSDS.

Employee Information and Training

Employers must establish a training and information program for employees exposed to hazardous chemicals in their work area at the time of initial assignment and whenever a new hazard is introduced into their work area.

Information

At a minimum, the discussion topics must include the following:

- The hazard communication standard and its requirements of the standard.
- The components of the hazard communication program in the employees' workplaces.
- Operations in work areas where hazardous chemicals are present.
- Where the employer will keep the written hazard evaluation procedures, communications program, lists of hazardous chemicals, and the required MSDS forms.

Training

The employee training plan must consist of the following elements:

- How the hazard communication program is implemented in that workplace, how to read and interpret information on labels and the MSDS, and how employees can obtain and use the available hazard information.
- The hazards of the chemicals in the work area. (The hazards may be discussed by individual chemical or by hazard categories such as flammability.)
- Measures employees can take to protect themselves from the hazards.
- Specific procedures put into effect by the employer to provide protection such as engineering controls, work practices, and the use of personal protective equipment (PPE).
- Methods and observations — such as visual appearance or smell — workers can use to detect the presence of a hazardous chemical to which they may be exposed.

Trade Secrets

A "trade secret" is something that gives an employer an opportunity to obtain an advantage over competitors who do not know about the trade secret or who do not use it. For example, a trade secret may be a confidential device, pattern, information, or chemical make-up. Chemical industry trade secrets are generally formulas, process data, or a "specific chemical identity." The latter is the type of trade secret information referred to in the Hazard Communication Standard. The term includes the chemical name, the Chemical Abstracts Services (CAS) Registry Number, or any other specific information that reveals the precise designation. It does not include common names.

The standard strikes a balance between the need to protect exposed employees and the employer's need to maintain the confidentiality of a bona fide trade secret. This is achieved by providing for limited disclosure to health professionals who are furnishing medical or other occupational health services to exposed employees, employees and their designated representatives, under specified conditions of need and confidentiality.

Medical Emergency

The chemical manufacturer, importer, or employer must immediately disclose the specific chemical identity of a hazardous chemical to a treating physician or nurse when the information is needed for proper emergency or first-aid treatment. As soon as circumstances permit, the chemical manufacturer, importer, or employer may obtain a written statement of need and a confidentiality agreement.

Under the contingency described here, the treating physician or nurse has the ultimate responsibility for determining that a medical emergency exists. At the time of the emergency, the professional judgment of the physician or nurse regarding the situation must form the basis for triggering the immediate disclosure requirement. Because the chemical manufacturer, importer, or employer can demand a written statement of need and a confidentiality agreement to be completed after the emergency is abated, further disclosure of the trade secret can be effectively controlled.

Non-Emergency Situation

In non-emergency situations, chemical manufacturers, importers, or employers must disclose the withheld specific chemical identity to health professionals providing medical or other occupational health services to exposed employees and their designated representatives, if certain conditions are met. In this context, "health professionals" include physicians, occupational health nurses, industrial hygienists, toxicologists, or epidemiologists.

The request for information must be in writing and must describe with reasonable detail the medical or occupational health need for the information. The request will be considered if the information will be used for one or more of the following activities:

- To assess the hazards of the chemicals to which employees will be exposed.
- To conduct or assess sampling of the workplace atmosphere to determine employee exposure levels.
- To conduct pre-assignment or periodic medical surveillance of exposed employees.
- To provide medical treatment to exposed employees.
- To select or assess appropriate personal protective equipment for exposed employees.
- To design or assess engineering controls or other protective measures for exposed employees.
- To conduct studies to determine the health effects of exposure.

The health professional, employee, or designated representative must also specify why alternative information is insufficient. The request for information must explain in detail why disclosure of the specific chemical identity is essential, and include the procedures to be used to protect the confidentiality of the information. It must include an agreement not to use the information for any purpose other than the health need stated or to release it under any circumstances, except to OSHA.

The standard further describes in detail the steps that will be followed in the event that an employer decides not to disclose the specific chemical identity requested by the health professional, employee, or designated representative.

Attachment 2

EPA List of 17 Chemicals Targeted for Reduction

United States Postal Service	
17 Priority Chemicals Targeted for Reduction	
Benzene	Methyl Ethyl Ketone
Cadmium and Cadmium Compounds	Methyl Isobutyl Ketone
Carbon Tetrachloride	Nickel and Nickel Compounds
Chloroform (trichloromethane)	Tetrachloroethylene
Chromium and Compounds	Toluene
Cyanides	1,1,1, - Trichloroethane
Methylene Chloride (dichloromethane)	Trichloroethylene
Lead and Lead Compounds	Xylene(s)
Mercury and Mercury Compounds	

Attachment 3

OSHA Memo on Consumer Products and Articles

RECORD TYPE: Interpretation

STANDARD NUMBER: 1910.1200
1915.1200
1917.28
1918.90
1926.59

SUBJECT: Hazard Communication Standard

INFORMATION DATE: March 21, 1995

LETTER: March 21, 1995

MEMORANDUM FOR: All Regional Administrators

FROM: John B. Miles Jr., Director
Directorate Of Compliance Programs

SUBJECT: Hazard Communication Standard: Documentation of Citations Related to the Exposure to Hazardous Substances and Consumer Products

This memorandum provides clarification and guidance for the Hazard Communication Standard (HCS) 29 CFR 1910.1200, 1915.1200, 1917.28, 1918.90, and 1926.59, when applied to the standard's provisions for exemptions of consumer products and articles.

OSHA has reviewed its enforcement history with respect to instances where the consumer product safety/hazardous substance (1910.1200(b)(ix)) or article (1910.1200(b)(v)) exemptions could have been applied. HCS citations have been issued for materials, such as bricks, rebar, lubricating oils, welding rods and dish-washing liquid without adequate documentation of employee exposure to a specific hazardous chemical or that their use fails to meet OSHA's consumer product exemption. It is not the intent of the standard that we issue citations for consumer products and articles except for conditions of use that greatly exceed those of a normal consumer or are outside the product's normal intended use. As a matter of policy, OSHA Compliance Officers shall not issue HCS citations for consumer products unless there is documentation that exposure(s) causing serious injury or illness are occurring. Please be aware that exposure is defined in the HCS to include potential exposure.

The performance-oriented nature of HCS makes it difficult to draw clear, exact lines for the number of times a consumer product or the circumstances under which an article can be used before the provisions of the rule apply. During the course of an inspection, to justify a citation, it is imperative that the compliance officer document that employee use of a consumer product containing hazardous ingredients at his or her workplace is such that frequency or duration clearly exceeds what a reasonable person would concede to be normal consumer use in a home or household environment. Situations where employee use of a consumer product is similar to the way a consumer would use a product or where the hazardous chemical under consideration meets the definition of an article shall not be cited as a violation of HCS.

To ensure that citations of HCS for consumer products are appropriate, the following elements must be included as documentation in the case file:

1. Document what information establishes the chemical as a consumer product. Was the container labeled with a label that is subject to the regulations of the Consumer Product Safety Act?
2. Document the hazardous chemical(s) present in the consumer product that employees were exposed to. Does the chemical present an acute or chronic hazard? Was the chemical on the employer's hazardous chemical inventory?

3. Document the duration of use, the period of time the chemical was used during the work shift and week. Did it greatly exceed normal or expected use by a consumer?
4. Document the frequency or pattern of use. Did it greatly exceed normal or expected use by a consumer?
5. Document the purpose of use. Was the consumer product used as recommended by the manufacturer or proscribed by the manufacturer?
6. Document the manner of use; was the consumer product used in a concentrated form or solution? What amount (i.e., the liters or grams) of the chemical was used?
7. Attach the MSDS, where available, for the cited product, i.e., is it defined as a hazardous chemical; what is its intended use(s)?

When citing HCS violations involving consumer products, identify in the citation the specific hazardous chemical and the concentration of the hazardous chemical present in the consumer product. In addition, the frequency and duration of use that resulted in exposures significantly greater than those of a consumer must be documented. The Agency shall not issue any citations simply stating that “glue” or “dishwashing liquid” was the hazardous chemical.

In a similar fashion, for HCS violations involving manufactured items or commercial products which under normal conditions of use may release hazardous chemicals and do not meet the criteria of the “article” exemption (1910.1200(c)), the specific hazardous chemical identified in the specific item shall be described in the citation. In the case of mixtures, the concentration of the specific hazardous chemicals shall be included in the citation. For example, the Agency shall not issue any citations specifically for brick. In this case, compliance officers shall identify the specific hazardous chemical, such as silica, present in the item, the concentration of the specific hazardous chemical in the item, the product name of the item, the specific operation(s) where an employee is or may be exposed to a physical or health hazard and the duration of employee exposure.

To ensure that citations of HCS for items that appear to be “articles” (rebar, bricks, structural steel beams, etc.) are appropriate, the following elements must be included as documentation in the case file:

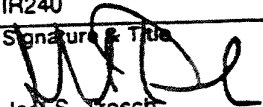
1. Document the hazardous chemical(s) and the concentration that was present in the item that employees were exposed to. Was the chemical on the employer’s hazardous chemical inventory?
2. Document the activities or operations that resulted in employee exposure to the hazardous chemical(s) in the item and the duration of use.
3. Attach the MSDS, where available, for the cited product, i.e., does it define it as a hazardous chemical and any statements of its intended use(s)?

In summary, the specific hazardous chemical identity shall be provided in any HCS citation. The commercial or product name shall not be used by itself to identify a hazardous chemical. If the hazardous chemical is an ingredient in a mixture, compliance officers shall identify in the citation the specific hazardous chemical(s) present, and the relative concentration(s) of the chemical(s) in the mixture. In addition, the specific operations where an employee is or may be exposed to a physical or health hazard and the duration of employee exposure shall also be identified.

Should you have any questions regarding this issue, please call Tom Galassi in the Office of Health Compliance Assistance at (202) 219-8036.



Management Instruction

Date Issued 6/29/90	Filing Number EL-810-90-6
Effective Date Immediately	Obsoletes MI EL-810-88-3 (4-11-88)
Originating Organization & OCC Code Employee Relations Dept. IR240	
Signature & Title  Joe S. Trosch Assistant Postmaster General, ERD	

Title

RRAR

Hazardous Materials Spill or Leak Standard Operating Procedures

I. Purpose

This Instruction updates the Standard Operating Procedures (SOPs) for dealing with spills and leaks of hazardous materials to require installation heads to follow up on improperly mailed items which cause an incident.

II. Criteria

A. Mailability

Some items classified as mailable can be hazardous; many others are mailed inadvertently or intentionally that present hazards to postal employees. Publication 52, *Acceptance of Hazardous, Restricted, or Perishable Matter*, provides specific mailability standards for categories of harmful materials that present significant danger or that are frequently presented for mailing.

B. Handling

Publication 52 also provides general guidelines on handling hazardous materials and emergency situations and establishes procedures, equipment, and resources to deal with (1) substances and quantities that may be handled without advanced training and expertise, but can still be a danger to employees and (2) explosives and highly toxic or radioactive materials. Handling of explosives and highly toxic or radioactive materials should be immediately referred to specially trained personnel as identified in section V.B. of this Instruction or Publication 52, subchapter 250.

III. Responsibilities

A. General Manager/Postmasters (GM/PMs)

Field Division GM/PMs are responsible for implementing this Instruction. These officials must designate the facilities that are required to establish a written SOP in conformance

with this Instruction. The offices included are as follows:

1. Facilities 10,000 square feet or larger.
2. Bulk mail centers.
3. Airport mail facilities.
4. Facilities (regardless of size) that frequently handle hazardous material mailings.

Note: Other facilities must follow, as a minimum, the procedures outlined in subchapters 240 and 250 of Publication 52.

B. Division Human Resources Directors

These officials are responsible for monitoring the establishment and maintenance of facility SOPs and providing technical guidance through divisional safety and health personnel.

C. Installation Heads

1. *Designated Facilities.* Installation heads at facilities identified by Field GM/PMs must:

- a. Designate personnel (1) to control spills and leaks, and (2) to provide training, personal protective equipment, and other resources to handle spills and leaks of hazardous materials.
- b. Maintain a hazardous materials SOP based on criteria stated in this Instruction and the attached checklist (see Attachment).

2. *Nondesignated Facilities.* At a minimum, management officials at the smaller nondesignated facilities must familiarize employees with subchapters 240 and 250 in Publication 52 and ensure continued employee awareness of hazardous spill and leak procedures.

Distribution

Standard Distribution plus copies to:
MSC Directors, Human Resources;
Division and MSC Managers, Safety and Health Services;
Airport Mail and Vehicle Maintenance Facilities;
Mail Transport Equipment, Mechanization Overhaul,
Maintenance Overhaul and Technical Service, and
Postal Employee Development Centers.

Special Instructions

Organizations listed under Distribution may order additional copies from materiel distribution centers. Use Form 7380, *MDC Supply Requisition*, and specify the filing number.

You may redistribute this document by photocopying it, but do not paraphrase or otherwise revise it.

D. Local Safety Personnel

These employees are responsible for providing advice on hazard identification, use of protective equipment, and other safety precautions.

E. Form 1770, Hazardous Materials Incident Report

Incident reports must be filed when injury, significant property damage or disruption to operations has occurred. All facilities must use Form 1770 to report incidents involving hazardous materials to Headquarters, Office of Safety and Health, with a copy to the local inspector-in-charge. Installation heads are to ensure that mailers involved in hazardous materials incidents are promptly contacted. Include the results of the contact in the *Follow-up Action* block on the form, indicating who was contacted, how the contact was made, and the date. This form is used for trend analysis; it DOES NOT supersede the requirements to complete postal accident forms.

IV. Developing/Evaluating SOPs

Use the checklist in the attachment to develop and evaluate SOPs for handling hazardous materials.

V. Hazardous Spill/Leak Procedures

A. Control Personnel

The designated hazardous materials control personnel determine the following:

1. The nature of the contaminant.
2. The personal protective equipment required.
3. The special precautions to be taken (evacuation, notification of government agencies); and
4. The cleanup and disposal techniques to be used.

B. Resources

1. *Requirement.* Resources must be made available so that the designated hazardous materials personnel may identify hazardous properties of materials and determine the precautions to be taken.

2. *Publications.* Sections 245 and 246 of Publication 52 list the organizations which may be contacted in a chemical spill emergency, especially CHEMTREC. However, the following are examples of other supportive materials which should be available at the facility:

a. *Hazardous Materials Response Guide.* Department of Transportation, Research and Special Programs Administration, Materials Transportation Bureau.

b. *Fire Protection Guide on Hazardous Materials.* Ninth Edition, National Fire Protection Association.

3. *Agencies.* Local fire department, rescue, police, poison control center, and local health department sources will be identified for possible consultation.

Note: Phone numbers and other resources must be placed in conveniently designated areas and made known to responsible individuals.

C. Equipment

1. *Requirements.* Equipment must be available to: (1) protect employees, (2) enclose and transport leaking containers for disposal or rewrap, and (3) clean and decontaminate facilities, other mail, and equipment.

2. Personal Protective Equipment

a. *Designated Personnel.* Personnel who are designated to handle or dispose of leaking containers or to clean up and decontaminate spills must be provided with protective equipment. This should include, at a minimum, the following: (1) chemical splash face shield and goggles to meet American National Standards Institute (ANSI) standards, (2) neoprene full-length apron or equivalent, (3) rubber boots or equivalent and, (4) neoprene gloves or equivalent which provide forearm protection.

b. *Rewrap Operations/Leaking Containers.* An eye wash/lavage and safety shower, meeting ANSI Z358.1 standards, must be located in the immediate area of the rewrap operation or where leaking containers are frequently handled.

c. *Respirators.* Respiratory protection may be provided at the discretion and under the guidance of local safety and medical personnel. Respirators will not be supplied to work in atmospheres which may be dangerous to life or health. Evacuate the area and call for expert assistance (e.g. fire department) for rescue and cleanup in such areas.

d. *Storage.* All personal protective equipment must be stored in a location which is accessible and keeps the equipment clean and in good repair.

D. Containment

1. *Types of Containers.* An adequate number of containers must be available to transport materials from spill sites to designated disposal areas. Containers must be fireproof, impervious to caustic materials, and capable of transporting such materials. Bench cans, oily waste cans, and similar devices may be appropriate. A variety of these cans are available which meet Occupational Safety and Health Administration (OSHA), Department of Transportation (DOT), and National Fire Protection Association (NFPA) requirements.

2. *Large Quantity Spills.* Designated hazardous materials control personnel must contain and isolate spills of this type as soon as possible. Where applicable, use appropriate containers to enclose and transport leaking containers. When necessary, notify the local fire department for assistance.

3. *Small Quantity Spills.* Designated personnel must isolate and transport small quantities of leaking containers to prevent further contamination.

4. *Equipment.* Individuals handling hazardous spills must wear equipment to protect their eyes, skin, and clothing (see V. C. 2.).

E. Handling

1. There must be a designated area for handling leaking containers. In most facilities, the rewrap area is the logical choice for this function.

2. Individuals who are handling affected packages to determine the contents, must do so under local exhaust ventilation. The following is applicable:

- In addition to an eye wash and shower, local exhaust ventilation must be provided at the location sufficient to capture vapors, gases, fumes, or dust from leaking packages.
- As an alternative, a chemical fume hood, with or without drain (check local plumbing/disposal codes), can be installed to provide an exhaust volume of 100 cubic feet per minute per square feet of hood face area.
- The hood or table where leaking containers are handled must have a dedicated exhaust system discharging at least

10 feet above the roof away from the air intakes--or in another approved manner.

- Use the hood or table strictly for handling and temporary storage of suspect items; it must not be used as a storage locker. When either is used as a temporary storage area, **DO NOT** mix chemicals. Separate acids, bases, solvents and oxidizing or reducing agents. Benches or tables should be easily cleaned and drained into appropriate containers.

F. Storage

1. Where necessary, the installation head will establish outside flammable and hazardous storage areas in compliance with 29 CFR 1910.106, Flammable and Combustible Liquids.

2. Store hazardous rewrap and disposal items in appropriate containers and approved areas.

G. Disposal

Ultimate disposal of hazardous materials must be performed under strict supervision of the designated safety personnel. Disposal of such material must be accomplished in accordance with federal, state, and local hazardous waste regulations. When necessary, consult local solid waste management offices of state governments or the Environmental Protection Agency.

H. Cleaning/Decontamination

1. SOPs must contain provisions for cleaning or decontamination of equipment or facilities. Adequate personal protective equipment must be worn, and approved cleaning methods must be followed.

2. Spill cleanup kits for a variety of materials are available commercially. The following are some companies and products:

Company/Address	Products
J.T. Baker Company 222 Red School Lane Phillipsburg, NJ 08865-2219 (201) 859-2151	Sells kits for solvents, acids, caustics, and mercury
Lab Safety Supply Company 3430 Palmer Drive Janesville, WI 53546-2303 (800) 356-0783	Provides "Spill Control Pillows"
Ensafco P.O. Box 341315 Memphis, TN 38184-1315 (901) 372-7972	Markets multipurpose solidification agents for liquid spill cleanups

3. At a minimum, commercial non-organic drying agents (shop use), sand, and vermiculite must be available.

I. First Aid

1. The medical unit must be contacted immediately in the event of injury, inhalation, or contact with hazardous materials.

2. Injured or exposed personnel must receive immediate medical attention. However, if there is no medical unit available, apply minimum first aid measures until the person can be seen as soon as possible by a physician. With most accidental contacts, it is essential to drench the employee's eyes and skin quickly with water for at least 15 minutes.

3. In all cases of injury involving hazardous substances, the employee must be examined and cleared by a physician before returning to duty.

J. Additional Procedures

Follow other procedures outlined in Sections 240 and 250 of Publication 52, as required (e.g. notification of Inspection Service).

VI. Training

A. Spills and Leaks.

Individuals who are designated to manage spills and leaks must receive training. This training may be accomplished through:

1. Postal developed instructions.
2. Private sector courses; or
3. Hazardous materials courses offered by government agencies (e.g. Department of Transportation, OSHA, NIOSH, etc.).

B. Rewrap/Cleanup.

Personnel who are assigned to rewrap, cleanup, and similar duties must be trained in handling hazardous materials and the use of personal protective equipment. PEDC Course 21511-07, *Hazardous Materials Cleanup*, is available for this purpose.

C. Awareness Training.

All employees must receive awareness training as follows:

1. Supervisors will use the initial employee orientation period, refresher courses, and safety talks to emphasize the proper acceptance and handling of hazardous materials.
2. Handbook EL-812, *Hazardous Materials*, must be made available to every employee who is involved in handling or accepting hazardous materials.
3. All potentially affected employees must be given PEDC Course 21511-00, *Hazardous Materials Acceptance and Handling*.
4. In facilities where SOPs are required, management must use Handbook EL-812 to apprise employees of the contents of the SOP and the basic action employees should take in the event of a hazardous spill or leak.
5. In nondesignated facilities, management must acquaint employees with the appropriate sections of Publication 52, *Acceptance of Hazardous, Restricted or Perishable Matter*.
6. Acceptance personnel must be familiar with the requirements contained in Parts 121, 124, 125, and 126 of the *Domestic Mail Manual*, and 130 of the *International Mail Manual*.

Attachment Checklist for Developing and Evaluating Hazardous Materials SOPs

1. Administration

- ☐ Does one individual have overall responsibility? Does that person have an alternate?
- ☐ Have individual(s) been designated to make decisions in the event of spills?
- ☐ Have individual(s) been designated to handle leaking or spilling materials?
- ☐ Are all of the people involved aware of their responsibilities?

2. Procedures

- a. Are handling, storage, and disposal procedures clearly specified for:
 - ☐ Designated individuals to determine the nature of the contaminant and the protective measures to be taken?
 - ☐ Immediate isolation of leaks or spills?
 - ☐ Protective equipment to be provided and worn as required?
 - ☐ Leaking packages to be moved to storage or handled under local exhaust ventilation?
 - ☐ Disposal of materials in accordance with local/EPA regulations?
- b. Are administrative and other procedures clearly specified for:
 - ☐ Publication 52 requirements to be followed?
 - ☐ Notification of responsible personnel?
 - ☐ Providing medical attention?
 - ☐ Incident reports to be available and completed when appropriate?

3. Equipment and Resources

- a. Are the following equipment and resources on hand:
 - ☐ Chemical splash face-shield and goggles?
 - ☐ Neoprene gloves or equivalent?
 - ☐ Full-length neoprene apron?
 - ☐ Rubber boots or equivalent?
 - ☐ Appropriate containers to transport leaking containers?
 - ☐ Hazardous materials texts?

- ☐ b. Are eye lavage and safety showers properly located and functioning?
- ☐ c. Are phone numbers posted as appropriate:
 - ☐ For fire department, rescue, and police?
 - ☐ For Poison Control Center and Centers for Disease Control?
 - ☐ For CHEMTREC?
 - ☐ For local OSHA?
 - ☐ For division and local safety manager?
- ☐ d. Are spill clean-up chemicals/absorbents provided?
- ☐ e. Is personal protective equipment stored properly?

4. Facilities

- ☐ Is the location for handling leaking containers equipped with exhaust ventilation or chemical fume hood with a dedicated exhaust?
- ☐ Is there a table/hood located in rewrap area?
- ☐ Is the table/hood drained according to local/Federal environmental regulations?
- ☐ Where necessary, is an outside flammable/hazardous materials storage area provided in accordance with CFR 1910.106?

5. Training

- ☐ Are all personnel in the building aware of the existence and nature of the program?
- ☐ Are the individuals responsible for elements of the program aware of the total program and of their responsibilities?
- ☐ Are there signs, posters, and the like to reinforce program awareness?
- ☐ Have employees been provided with Handbook EL-812, *Hazardous Materials*?
- ☐ Have employees been given available postal training (e.g. PEDC Program #21511)?
- ☐ Have hazardous materials control personnel received technical training?
- ☐ Have employees required to handle hazardous materials received training on safety in handling such materials and in wearing protective equipment?



October 10, 2001

VICE PRESIDENTS, AREA OPERATIONS
MANAGER, CAPITAL METRO OPERATIONS

SUBJECT: Emergency Action Plans

Recent world events have emphasized the need for postal facilities to be prepared to respond to emergencies. The ELM, in Section 850, requires all postal facilities with more than ten employees to have written Emergency Action Plans. For facilities with ten or fewer employees, the plan may be communicated verbally. The plans must include actions that management and employees are expected to take in the event of various foreseeable types of emergencies. These plans must be kept up to date and communicated to employees at least annually. Training is required for Emergency Evacuation Teams (EET) and Spill Response Team members. At least one emergency evacuation drill must be held annually, and other types of drills, e.g., spill response, should be held as necessary to maintain proficiency of spill response team members. Training for EET members and Spill Response Team members (HAZWOPER) is available through the National Center Employee Department.

Emergencies that affect the entire community require coordination with local emergency program managers. These emergencies may include severe weather, flooding, and terrorist activities. Local and state authorities have established emergency operation plans. Additionally, the federal government has emergency response plans. The federal plan was activated September 11 in New York City. The Federal Emergency Management Agency currently has the lead in civil defense matters, which includes response (search and rescue) and recovery initiatives. The FBI is the lead agency in terrorism incidents. Other federal agencies offer support as needed. However, all response efforts begin locally, so it is critical to establish coordination and communication with local emergency personnel.

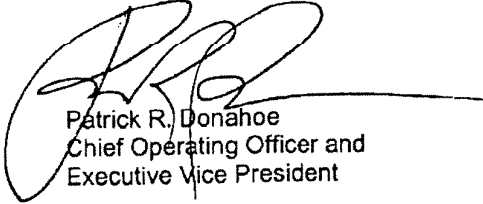
Aviation Mail Security is currently providing operational HAZMAT training for employees at AMCs, AMFs, mail processing centers, international service centers, and retail acceptance points. These training modules outline HAZMAT awareness, acceptance, proper handling, and transporting procedures.

References useful in preparing and maintaining the Emergency Action Plans are:

- ELM, Section 850
- MI EL-810-96-1, Response to Hazardous Materials Releases
- MI EL-860-1999-3, Emergency Response to Mail Allegedly Containing Anthrax
- MI EL-810-2000-2, Bloodborne Disease Exposure Control Plans
- MI EL-810-2001-1, Personal Protective Equipment and Respiratory Protection Programs
- MI EL-850-2001-2, Emergency Evacuation and Fire Prevention
- Safety Toolkit Resources Page

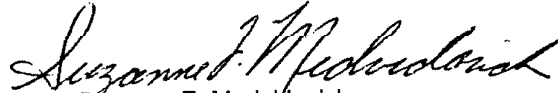
A sample safety talk titled Hazardous Material Spill and Leak Response, from the Safety Toolkit, is attached. Additional safety talks on the above topics are available in the Toolkit.

Please ensure that facilities within your respective span of management have developed and implemented Emergency Action Plans and that personnel training has been performed and documented. Stand-up talks covering the Emergency Action Plans should be presented. Questions concerning the Emergency Action Plans should be directed to Denise Richardson at 202/268-3686.



Patrick R. Donahoe
Chief Operating Officer and
Executive Vice President

Attachment



Suzanne F. Medvidovich
Senior Vice President
Human Resources

Talking Points

- America's postal employees have done an outstanding job of keeping the mail moving since September 11th. We have delivered more than 20 billion pieces of mail under extraordinary conditions.
- The Postal Service places the highest priority on the safety of its employees and customers and the security of the U.S. Mail. We are taking every possible measure to assure the safety for all.
- We are reminding employees to be vigilant in their efforts to identify suspicious mail. If they find a suspicious package or letter we are advising them to leave it alone, isolate it, and call for help. We recommend this same effort to all of our customers.
- We continue to have discussions with postal Union and Association leaders regarding the safety of employees. We have agreed to work together to continually educate employees concerning the safe and secure handling of the mail.
- We are responding to employee concerns by making gloves and masks available to those employees who actively handle the mail.
- We are working tirelessly to keep the mail moving and to keep our employees safe and secure.
- We offer the following advice to customers who receive a suspicious package or letter. Do not open the piece. Isolate it. Evaluate the immediate area. Call a postal Inspector to report that you have received a parcel in the mail that may contain biological or chemical substances.
- Be suspicious if you receive a mail piece from someone unfamiliar with you, it has no return address, it is lopsided or oddly shaped, marked with restrictive endorsements, or shows a city or state postmark that does not match the return address.
- All testing of postal employees for exposure to anthrax has been negative.
- We process and deliver 680 million pieces of mail per day to more than 128 million addresses. We have 800,000 employees working in more than 38,000 postal facilities.
- We have 800,000 employees and 2,000 postal inspectors who are continually being educated on the safety and sanctity of the mail. They are working extremely hard to make sure the mail is safe and viable for all customers.
- Until this week we have never experienced a real incident of anthrax being sent through the mail. Over the past several years we have received on average about 80 threats or hoaxes per year.
- We have briefed the Surgeon General's office on our actions and will brief the Office of Personnel Management along with the Human Resource Directors for all federal agencies.
- We are planning a nationwide mailing to every address in America that helps to educate everyone about the issue of biological threats through the mail. The easy to read post card will arrive in mailboxes within the next 10 days.

- The Postal Service is working with law enforcement and health care agencies regarding the discovery of anthrax spores in an isolated area of the Boca Raton post office.
- We have established a taskforce on hazardous biological and chemical materials that will include our unions, management associations, major mailers, and senior postal managers.
- Our Chief Postal Inspector is working with the mailing industry to strengthen the security of business mailrooms.
- We are working with Capital Hill police in establishing new procedures for handling all mail for congressional leaders.
- Now more than ever America is depending on us to keep the mail moving safely and securely.
- Everyone needs to mobilize common sense in dealing with this unfamiliar situation.
- Our Postal Inspection Service is working closely with other federal and local agencies to aggressively investigate every suspected biological incident.
- The mail is safe. People shouldn't stop using the mail because of these isolated incidents. The simple act of paying attention to incoming mail will go a long way in keeping it safe and viable.

Hazardous Material Spill and Leak Response

(From Safety Toolkit)

Summary

This talk heightens your awareness of what you should do if you discover a hazardous materials spill or leak.

If you discover a hazardous material spill or leaking package, stop what you are doing and immediately notify your supervisor. Do not attempt to clean up a spill or leak under any circumstances.

What is a hazardous material?

A hazardous material is a substance or material containing a chemical or infectious biological substance that is capable of causing illness or injury to people or damage to property if not handled or used appropriately.

What hazardous materials are located at our facility?

Some of our facility operations use small quantities of hazardous chemicals. **(Note to Supervisor: Provide examples of hazardous materials specifically found at your facility.)** Examples of hazardous materials found at larger Postal Service facilities may include:

- Acetylene - welding and cutting equipment,
- Gasoline - motor vehicles and motorized equipment,
- Bleach - cleaning,
- Paint and thinner - painting,
- Ammonia - cleaning,
- Inks - cancellation and printing,
- Insecticides - pest control,
- Caustics - janitorial supplies,
- Isopropyl Alcohol - removal of coating ink,
- Hazardous wastes - from the above operations,
- PCB's and asbestos - transformers and insulating materials,
- Lead - water supplies and paints,
- Medical wastes - used syringes and bandages,
- Blood or other bodily fluids associated with an injury or illness,

You should be aware that throughout the Postal Service safety, health, and environmental personnel are actively involved in reducing the presence and use of hazardous chemicals in the workplace through a variety of chemical reduction and pollution prevention initiatives.

What hazardous materials can be in the mailstream?

While most hazardous materials are nonmailable, you may find some hazardous materials in the mailstream. Postal regulations limit the quantity and type of potentially hazardous materials mailable to those materials classified as consumer commodity ORM-D material. These quantities are small enough to present little hazard to life, health, or property. Postal customers may only mail materials that are not dangerous or injurious to life, health, or property. Postal regulations allow mailing the following chemicals and substances if they qualify as ORM-D materials:

- Flammable and non flammable gases and liquids,
- Flammable solids
- Corrosives,
- Paints, and
- Specimens of blood, urine, tissues, and secretions.

Acceptance personnel are specifically trained to ensure that all hazardous materials are properly packaged and labeled.

What is a hazardous material spill or leak?

Two types of hazardous material spills or leaks can occur at our facility. One is an incidental release and the other is an emergency release.

An incidental release is a minor or non-emergency event that presents limited risk to the health and safety of employees. It typically involves small quantities of material, has little potential for human exposure, and involves materials of low toxicity. Examples of an incidental release include small spills of motor oils, latex paints, and window cleaners.

An emergency release poses a significant safety or health hazard to employees or the environment. Postal Service employees with specialized training may respond to emergency releases. In almost all cases, an emergency release requires assistance from outside hazardous material response agencies or contractors. Examples of emergency releases include acetylene gas cylinder leaks and spills of drum quantities of solvents.

If you discover an incidental or an emergency release, stop what you are doing and immediately notify your supervisor. Do not attempt to clean up the release under any circumstances.

Who can respond to a hazardous material spill and leak?

Only personnel who have received the Hazardous Waste Operations and Emergency Response (HAZWOPER) training are qualified to respond to spills, leaks, and other incidental releases of hazardous chemicals or infectious biological materials. If personnel have only received bloodborne pathogen (BBP) training, they are not qualified to respond to chemical spills or leaks. Untrained personnel who discover a leak or spill must immediately notify their supervisor that a potential hazardous chemical or infectious substance release has occurred and take no other action.

Do not attempt to clean up a spill or leak under any circumstances.

What should I do if I discover a hazardous material spill or leak?

If you discover a chemical or biological spill or notice a leaking package, stop what you are doing and immediately notify your supervisor. Do not attempt to clean up a spill or leak under any circumstances.

You will treat all biological substances as potentially infectious materials.

Where can I get more information?

You need to know that we have the following written documents available for your review.

- Emergency Action Plan (EAP),
- Hazard Communication (HAZCOM) program (hazardous materials and hazards),
- Personal Protective Equipment (PPE) program,
- Hazardous Materials (HAZMAT) Spill and Leak response program, and
- Bloodborne Pathogen (BBP) program.

Additional related safety talks addressing chemical and biological substances with the Postal Service include HAZCOM, BBP, PPE, and the EAP.

Anthrax Talking Points

□ What is anthrax?

- acute infectious disease caused by the spore-forming bacterium *Bacillus anthracis*
- most commonly occurs in hoofed mammals (cattle, sheep, goats, camels, antelopes)
- can also occur in humans when they are exposed to infected animals, tissue from infected animals, or spores

□ Why has anthrax become a current issue?

- one death and two illnesses in Florida due to anthrax (October, 2001)
- hoaxes which have occurred in postal and other facilities
- potential agent for use in biological warfare
- Department of Defense (DoD) has begun mandatory vaccination of all active duty military personnel who might be involved in conflict

□ How common is anthrax and who can get it?

- most common in agricultural regions where it occurs in animals
- when it affects humans, it is usually due to an occupational exposure to infected animals or their products
- workers exposed to dead animals and animal products from other countries where anthrax is more common may become infected with *B. anthracis* (industrial anthrax)
- anthrax spores can be produced in a dry form which may be stored and ground into particles which when inhaled can cause disease
- anthrax in wild livestock has occurred in the United States

□ How is anthrax transmitted?

- infection can occur in three ways:
 - cutaneous (skin)
 - inhalation, and
 - gastrointestinal (ingestion)
- spores can live in the soil for many years
- humans can become infected with anthrax by:
 - handling products from infected animals (hair, wool, hides, flesh, bone meal)
 - inhaling anthrax spores
 - eating undercooked meat from infected animals (it is rare to find infected animals in the United States)

□ What are the symptoms of anthrax?

- symptoms usually occur within 7 days of exposure
- symptoms vary depending on how the disease was contracted
- **Cutaneous:**
 - most (about 95%) anthrax infections occur when the bacterium enters a cut or abrasion on the skin
 - can happen when handling contaminated wool, hides, leather or hair products (especially goat hair) of infected animals
 - skin infection begins as a raised itchy bump that resembles an insect bite
 - within 1-2 days develops into a fluid-filled blister and then a painless ulcer, usually 1-3 cm in diameter, with a characteristic black necrotic (dying) area in the center
 - lymph glands in the adjacent area may swell

- deaths are rare with appropriate antibiotic therapy

➤ **Inhalation:**

- initial symptoms may resemble a common cold
- after several days, the symptoms may progress to severe breathing problems and shock
- inhalation anthrax is usually fatal

➤ **Intestinal:**

- intestinal disease form of anthrax may follow consumption of contaminated meat
- characterized by acute inflammation of the intestinal tract
- initial signs are nausea, loss of appetite, vomiting, fever
- followed by abdominal pain, vomiting of blood, and severe diarrhea

□ **Where is anthrax usually found?**

- can be found globally
- more common in developing countries or countries without veterinary public health programs
- certain regions of the world report more anthrax in animals than others: South and Central America, Southern and Eastern Europe, Asia, Africa, the Caribbean, and the Middle East

□ **Can anthrax be spread from person-to-person?**

- direct person-to-person spread of anthrax is extremely unlikely to occur
- disease can't be contracted by touching or visiting patients with inhalation anthrax

□ **Is there a way to prevent infection?**

- in countries where anthrax is common and vaccination levels of animal herds are low, humans should:
 - avoid contact with livestock and animal products
 - avoid eating meat that has not been properly slaughtered and cooked
 - an anthrax vaccine has been licensed for use in humans
 - vaccine is reported to be 93% effective in protecting against anthrax (not widely available to civilian population)
- in postal facilities, when a suspected anthrax-containing parcel is found follow procedures listed in MI 860-1999-3, *Emergency Response to Mail Allegedly Containing Anthrax* and your local Emergency Action Plan

□ **How is anthrax diagnosed?**

- anthrax is diagnosed by:
 - isolating *B. anthracis* from the blood, skin lesions, or respiratory secretions, or
 - by measuring specific antibodies in the blood of persons with suspected cases
- inhalation exposure can be determined by isolating spores from nasal passages

□ **Is there a treatment for anthrax?**

- doctors can prescribe effective antibiotics (penicillin, doxycycline, ciprofloxacin)
- to be effective, treatment should be initiated early
- treatment should continue for at least 4 weeks after exposure
- if left untreated, the disease can be fatal
- decontamination can be accomplished by boiling contaminated articles in water for 30 minutes or more and using some of the common disinfectants, such as chlorine

October 2001

Mandatory Safety Talk on Anthrax

Anthrax is an acute disease caused by a spore-forming bacterium (*Bacillus anthracis*). Anthrax most commonly occurs in hoofed mammals (cattle and sheep) but can also infect humans. It is important to note however, that anthrax is **not** spread from person to person. Anthrax is most common in agricultural regions where it occurs in animals. These include South and Central America, Southern and Eastern Europe, Asia, Africa, the Caribbean, and the Middle East. This disease rarely occurs in the United States, with most reports of animal infection occurring in Texas, Louisiana, Mississippi, Oklahoma and South Dakota.

Anthrax infection can occur in three ways: (1) through breaks/cuts in the skin, (2) inhalation of spores, and (3) ingestion. If the bacterium enters a cut or abrasion on the skin, an infection can result, which develops into a painless ulcer with a characteristic black area in the center. Initial symptoms from inhaled spores resemble a common cold, which may progress to severe breathing problems and shock, with death usually resulting within 1-2 days after onset of acute symptoms. Early intervention with antibiotics is the preferred treatment for inhalation exposure. The intestinal disease form of anthrax may follow the consumption of contaminated meat, and is characterized by an acute inflammation of the intestinal tract. Initial signs of nausea, loss of appetite, vomiting, fever are followed by abdominal pain, vomiting of blood, and severe diarrhea.

How likely is it that someone would receive anthrax or other terrorist-related biological agents in the mail? The Postal Service delivers approximately 208 billion pieces of mail per year, and presently we have not found any real incidents, only threats or hoaxes (no biological agent present).

During FY 1999 and FY 2000, there were approximately 178 anthrax threats received at courthouses, reproductive health service providers (clinics offering abortion services and/or counseling), churches, schools, and post offices. During FY 2001 we have had only approximately 60 threats or hoaxes which included anthrax, hoof and mouth disease, the Klingerman virus hoax and others.

Local, state, and Federal health and emergency program officials are prepared to deal with terrorist activities involving release of anthrax spores. The Postal Service is coordinating with these officials to ensure quick and effective response to any such activities.

The Postal Service is dedicated to protecting the safety and health of all employees as well as customers. Management Instruction EL-860-1999-3, *Emergency Response to Mail Allegedly Containing Anthrax*, provides emergency response procedures and management guidelines for incidents in which letters or parcels are received that allegedly contain anthrax. The remote, but real, possibility that anthrax will be introduced into the mail stream requires that the following procedures be strictly followed.

What constitutes a "suspicious parcel"? Some typical characteristics Postal Inspectors have detected over the years, which ought to trigger suspicion, include parcels that:

- are unexpected or from someone unfamiliar to you.
- are addressed to someone no longer with your organization or are otherwise outdated.
- have no return address, or have one that can't be verified as legitimate.
- are of unusual weight, given their size, or are lopsided or oddly shaped.
- are marked with restrictive endorsements, such as "Personal" or "Confidential."
- have protruding wires, strange odors or stains.
- show a city or state in the postmark that doesn't match the return address.

If you, as an employee, encounter a suspicious looking mail piece(s), do not touch it but report it to your supervisor/manager immediately.

Supervisors and Managers will immediately do the following:

1. Direct all employees away from the suspected mail piece(s) immediately.
2. Avoid further handling of the suspected mail piece(s), isolate it, and cordon off the immediate area (may utilize facility Spill and Leak Team to assist in this effort).
3. Call 911 immediately for HAZMAT Response Team.
4. Call your supervisor/manager or any member listed on the Crisis Management Plan/Emergency Action Plan.
5. Call Postal Inspectors.
6. Call the Health Unit.
7. Instruct employees thought to have handled the suspect mail to wash exposed skin with soap and water for three minutes and then rinse with water for one minute. These employees should remain in a safe place on postal premises until the Hazardous Material (HAZMAT) team arrives and employees are processed through the decontamination line.
8. After being decontaminated, employees may be interviewed by federal authorities (FBI) to determine the extent of the situation.
9. Invoke emergency action plan, including mechanical shutdowns (air handling equipment) and evacuation.
10. Call Postal Service Aviation Mail Security Office.
11. Call County Health Department.

Management Instruction

Bloodborne Disease Exposure Control Plans

This instruction provides policy guidance on compliance with 29 *Code of Regulations* (CFR) 1910.1030, Occupational Exposure to Bloodborne Pathogens (BBP). The Occupational Safety and Health Administration (OSHA) has promulgated this regulation to protect workers who are reasonably anticipated to come in contact with blood and/or other potentially infectious materials.

Date	March 1, 2000
Effective	Immediately
Number	EL-810-2000-2
Obsoletes	EL-810-95-3
Unit	Safety Performance Management



Yvonne D. Maguire
Vice President
Employee Resource Management

Scope

It is the policy of the Postal Service to protect the safety and health of all its employees and comply with OSHA regulations. Employees who are occupationally exposed to bloodborne pathogens, however, require special identification and protection under this OSHA standard. This instruction includes procedures to assist safety and health personnel in identifying such employees.

A small number of employees, such as medical personnel, routinely perform tasks that may involve exposure to blood or infectious materials, for example during first aid treatment. These employees are clearly within the scope of the standard.

Also within the scope of the standard are other employees “reasonably anticipated to come in contact with blood or infectious materials.” They must be identified as “occupationally exposed” if an exposure determination finds that occupational exposure is likely.

Definitions

OSHA Definitions

The following OSHA definitions apply:

1. *Blood* — human blood, human blood components, and products made from human blood.

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2. *Bloodborne pathogens* — pathogenic organisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV) and human immunodeficiency virus (HIV).
3. *Contaminated* — the presence or the reasonably anticipated presence of blood or other potentially infectious materials on an item or surface.
4. *Contaminated sharps* — any contaminated objects that can penetrate the skin, such as needles, scalpels, or broken glass.
5. *Engineering controls* — controls such as containerization or mechanical handling that isolate or remove the hazard of bloodborne pathogens from the workplace.
6. *Exposure incident* — a specific eye, mouth, other mucous membrane, nonintact skin, or parenteral (i.e., needlestick) contact with blood or other potentially infectious materials.
7. *Occupational exposure* — reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other infectious materials.
8. *Other potentially infectious materials* —
 - a. The following human body fluids: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids.
 - b. Unfixed tissues or organs from humans.
 - c. HIV or HBV cultures and blood, organs, and other tissues from experimental animals infected with HIV or HBV.
9. *Regulated waste* — contaminated sharps, liquid or semi-liquid blood or other potentially infectious materials, contaminated items that would release liquids or semi-liquids if compressed, items caked with dried blood, or other potentially infectious materials that may release them during handling, and pathological or microbiological wastes containing blood or other potentially infectious materials.

Other Definitions

Additional definitions are contained in the standard, paragraph (b) (29 CFR 1910.1030). Persons responsible for administering this instruction should also be familiar with definitions for *infectious substance* (etiologic agent), *clinical specimen*, and *biological product* contained in *Domestic Mail Manual CO23* and Publication 52, *Acceptance of Hazardous, Restricted, and Perishable Mail*.

Responsibilities

Headquarters

Employee Resource Management (ERM)

ERM establishes policy and procedure on compliance with the blood-borne pathogen (BBP) standard and, through Safety Performance Management and Health and Resource Management, provides oversight and technical assistance.

Areas

Area Human Resources Managers

The area Human Resources manager is responsible for monitoring and evaluating BBP programs.

Area Medical Director

The area medical director provides expert guidance.

Districts and Plants

Facility Managers

Facility managers are responsible for compliance with this policy.

Nurse Administrators and Contracted Medical Providers

Nurse administrators and contracted medical providers are responsible for elements of the exposure control plan, methods of compliance, post-exposure evaluation and follow-up, training, and recordkeeping as delineated in this instruction.

Safety Staff and Health Professionals

Safety staff and health professionals are responsible for developing exposure control plans, identifying employees who are occupationally exposed, and implementing methods of compliance as described in this instruction.

Exposure Control Plan

Administrative Requirements

Consult the *BBP Program Guide* (located in the Safety Toolkit or on the Safety and Health home page) for technical program guidance.

Written Plan

Safety and health professionals prepare a written exposure control plan that covers plants, bulk mail centers (BMCs), and large offices with exposed employees. Smaller facilities with exposed employees and/or a significant flow of biological materials (e.g., specimens mailed to a nearby lab) may also require a written plan.

Plan Review

The plans must be reviewed and updated annually. This must be accomplished at the beginning of each calendar year. The plans must be reviewed annually or whenever necessary to reflect new or modified tasks and procedures that affect occupational exposure and to reflect new or revised employee positions with occupational exposure.

Employee Accessibility

The plan must be accessible to employees and their representatives in accordance with 29 CFR 1910.20, Access to Employee Exposure and Medical Records.

Exposure Determination

Lists of Employees Potentially Exposed

The exposure control plan must establish procedures and responsibilities for exposure determination. This process is a critical element of the plan. Omitting individuals who are occupationally exposed to BBPs may reduce their protection, while falsely identifying employees as exposed results in unnecessary costs and administrative burdens. All persons reasonably anticipated to be occupationally exposed, even if they are not listed as examples, must be included on one of the two lists described below. *During annual reviews these lists should be adjusted as necessary.*

List A includes all employees in job classifications covered by the standard, and no further analysis is necessary. List B is used to determine which employees with occupational exposure need to be included in the plan. Lists should be prepared as follows:

List A — This list includes *job classifications* in which *all employees are assumed to have occupational exposure* (based on OSHA's definitions):

1. All medical personnel and trained first aid persons.
2. All inspectors, security personnel, and crime laboratory personnel (including administrative support).

3. All persons designated and trained to clean up spills and leaks of mailed hazardous materials that include blood and other infectious materials.

List B — This list includes all *job classifications* in which *some employees may have occupational exposure*. The list must be further broken down to tasks and procedures that cause occupational exposure within the classifications listed. Some employees in these occupation codes or job classifications could be exposed, and they must be individually identified. A facility and employee survey is a useful tool for identifying potentially exposed employees. See the *BBP Program Guide* provided with the Safety Toolkit for guidance on identifying potential exposures and occupationally exposed personnel. This potential for exposure is used to determine if these employees should be included in the program. Job classifications must be determined locally, but *may* include:

1. Mail handlers, clerks, and other personnel who routinely handle mailed blood specimens or other items potentially containing blood or other body fluids containing BBPs.
2. Mail handlers, clerks, and other personnel who routinely handle mailed, or internally generated, medical wastes (sharps).

Determining Exposure

All List A personnel are to be included in the plan. List B personnel with documented “reasonably anticipated” exposure are also to be included. Job classifications and tasks on List B with no “reasonably anticipated” exposure must continue to be identified and listed to document the process and to allow for possible inclusion in the program in the future. This exposure determination is to be made without regard to the use of personal protective equipment.

Methods of Compliance

The exposure control plan must include the methods of compliance discussed in the following six sections:

Universal Precautions

All leakage from mailed biological materials, until further identified, and all body fluids must be treated as potentially infectious materials.

Local Precautions

Local handling procedures must be established to minimize hands-on contact with mailed medical wastes and similar items. Training (see Information and Training) must stress awareness and proper handling of these materials.

Personal Protective Equipment

Gloves, aprons, and other personal protective equipment as appropriate must be supplied to personnel frequently handling potentially infectious mailed materials. Personnel assigned to the cleanup of leaking items must be provided full protection, e.g., gloves, aprons, and splash shields. The spill and leak standard operating procedure (SOP) must be updated as necessary to ensure that these personnel use the latest safe cleanup and decontamination procedures.

Hand Washing Facilities

Hand washing must be stressed and handwashing facilities must be made available for persons frequently handling mailed potentially infectious materials.

Medical Precautions

Nurse administrators, staff nurses, and/or contracted medical providers must ensure that procedures and precautions required in the standard for health care personnel are implemented. Additionally, medical personnel must ensure that first aid supplies include gloves, cardiopulmonary resuscitation (CPR) mouthpieces, and other equipment as appropriate. Medical wastes generated in medical or health units (sharps, bandages, etc.) must be properly managed within the facility and disposed of in accordance with local, state, and federal regulations.

Local Contingency Plans

Certain facilities in urban areas may experience problems with loose syringes dropped in collection boxes and elsewhere. Where this is determined to be an ongoing situation, local contingency plans should be developed to minimize the hazard to employees who may come in contact with loose syringes during the course of duty.

Vaccination Program

All employees on List A and those employees on List B who are considered occupationally exposed must be offered HBV vaccination in accordance with the latest guidance from the Public Health Service. The nurse administrator, staff nurse, and/or servicing medical personnel must develop a program that meets the requirements of the standard and ensures that employees are offered vaccination after receiving the required training and within 10 days of initial assignment. Employees who decline must complete the form in Appendix A of the OSHA standard.

Exposure Incident Evaluation

Incident Report

Form 1770, *Hazardous Materials Incident Report*, must be used to document incidents involving potentially infectious materials in the mails. Installation heads must follow up with the mailer to prevent future incidents.

Investigation

Form 1769, *Accident Report*, must be completed if an injury or exposure (e.g., needlestick, laceration, or splash) related to potentially infectious materials occurs. For reporting purposes, OSHA considers such exposures occupational injuries if the incident results in the recommendation of medical treatment beyond first aid. Each exposure incident must be evaluated (regardless of reporting status), and steps must be taken to prevent future occurrences where possible. All exposure information must be transmitted to the health care professional treating the individual.

Medical Procedures

Postexposure Evaluation and Follow-Up

Procedures must be established in the written exposure control plan that ensure required medical postexposure evaluation and follow-up. They must include:

1. Documenting the route of exposure.
2. Identifying and documenting the source of the potential BBP (individual if possible).
3. Testing employee's blood for HBV and HIV.
4. Providing postexposure prophylaxis as recommended by the Public Health Service.
5. Counseling.
6. Evaluating reported illnesses.

Professional Information

All medical personnel responsible for implementing this instruction (having occupationally exposed employees) must have on hand a copy of the OSHA standard.

Written Opinion on Exposure

Medical personnel must ensure that the treating physician provides a written opinion to the Postal Service and that the employee receives a copy within 15 days that includes whether or not HBV vaccination is indicated, whether or not it was given, and other elements required in the standard.

Medical Records

Nurse administrators must maintain records on all occupationally exposed employees (see Recordkeeping).

Hazard Communication

Medical Personnel

Medical personnel must ensure that applicable portions of paragraph (g) of the standard are implemented as necessary, e.g., warning labels are put on regulated medical wastes generated in the medical unit.

Management

Management at all levels must stress the importance of awareness during acceptance and handling of biological materials. Acceptance employees must be familiar with labeling and packaging requirements.

Information and Training

All Postal Employees

The Postal Service is committed to providing periodic “awareness” training to all postal employees as part of governmentwide efforts to protect the public. Safety talks, bloodborne pathogen awareness videos (see references) sponsored by the Postal Service, and other methods may be used.

Occupationally Exposed Employees

Training of occupationally exposed employees is required upon initial assignment and annually thereafter. The BBP training provided by the Postal Service (NCED Course EHS09-13 meets the subject matter requirements below.

A knowledgeable person must give the training. This could be a trained physician, nurse, or safety and health professional familiar with the subject matter:

1. The text of the standard.
2. Methods of bloodborne disease transmission.
3. Overview of the exposure control plan and the means by which the employee can obtain a copy of the written plan.

4. Methods of compliance.
5. Use of personal protective equipment.
6. Vaccinations and employee rights.
7. Spill and leak response plans.
8. Exposure incident procedures — first aid, hand washing, and evaluations.
9. Medical follow-up procedures and counseling.
10. Methods for recognizing tasks and activities that may involve exposure to blood or other infectious materials.

Recordkeeping

Medical

Each employee considered occupationally exposed to BBPs must have a section in the employee medical folder dedicated to the records required by paragraph (h) of the standard, including:

1. HBV vaccination status and dates of vaccinations.
2. Copies of all follow-up examination reports.
3. Health care professionals' written opinions, if needed.
4. All exposure incident information as required.

Training

The nurse administrator must record all required training records for occupationally exposed employees by using Form 2548, *Individual Training Record — Supplemental Sheet*. Training records must be retained for 3 years. Other provisions of the standard regarding availability, records transfer, and confidentiality must be followed.

Records must include:

1. Dates of sessions.
2. Summary of the content.
3. Names and qualifications of trainers.
4. Names and job titles of all employees attending.

REFERENCES

1. 29 CFR 1910.1030, "Occupational Exposure to Bloodborne Pathogens," www.osha.gov.
2. NIOSH Publication No. 89-108, *A Curriculum Guide for Public Safety and Emergency-Response Workers*, USHHS, Public Health Service, Centers for Disease Control. Available from:

NIOSH PUBLICATIONS
4676 COLUMBIA PARKWAY
CINCINNATI OH 45226
3. OSHA Instruction CPL 2.244D, "Enforcement Procedures for the Occupational Exposure to Bloodborne Pathogens." 11/5/99.
http://www.osha-slc.gov/OshDoc/Directive_data/CPL_2-2_44D.html.
4. OSHA Technical Note #3, Bloodborne Fact Sheets, "Reporting Exposure Incidents; Protect Yourself When Handling Sharps; Hepatitis B Vaccination — Protection for You, Personal Protective Equipment Cuts Risk; Holding the Line on Contamination." www.osha.gov.
5. OSHA Publication 3127 (revised), *Occupational Exposure to Bloodborne Pathogens*, 1996. www.osha.gov.
6. OSHA Publication 3130 (revised), *Bloodborne Pathogens and Emergency Responders*, 1998. www.osha.gov.
7. Summit Training Video, "USPS Bloodborne Pathogen Awareness." Available from:

SUMMIT TRAINING SOURCE INC
2660 HORIZON DRIVE SE
GRAND RAPIDS MI 49546
Phone: (800)-842-0466
Fax: (616)-949-5720

Walkthrough Checklist

Occupancy, Alarms, Fire Suppression, Exits, Housekeeping, Hazardous Materials, Building Systems

Facility Location: _____

Date: _____

(Check the box if the answer is YES to the following questions.)

Occupancy, Evacuation Routes, Building Diagrams

- ☐ Are the floor plans available and dated?
- ☐ Are any changes in the location of cubicles, offices and equipment reflected in the floor plans?
- ☐ Has the number of occupants stayed about the same since the latest floor plan was drawn?
- ☐ Have operations remained about the same since the latest floor plan was drawn?
- ☐ Are evacuation routes shown on the floor plans or workplace maps?
- ☐ Are the locations of exits, alarms and fire extinguishers noted on the floor plans?
- ☐ Are all building drawings available?
- ☐ Is smoking restricted?
- ☐ Is the Building Inspector's/Fire Marshall's report available and on file?
- ☐ Are the heating, ventilation and air conditioning (HVAC) drawings available?

Alarms and Detection Systems

☐

Type of System: _____

- ☐ Can the alarm system be seen and heard? (Complies with the Americans with Disabilities Act.)
- ☐ Has the alarm system been tested in the last year?
Date of test: _____
- ☐ Does _____ the alarm system automatically notify the fire department?
 - ☐ If not, _____ notifies fire department?
(name of person)
- ☐ Does the alarm system differentiate between different types of emergencies?

- ☐ Do workers know what the alarm(s) means?
- ☐ Are the trouble lights on fire alarm panels (if applicable) working?
- ☐ Does the facility have a detection system for heat, smoke, carbon monoxide or other hazards?
- ☐ Has the detection system been tested in the last year?
Date of test: _____
- ☐ Is the detection system linked to the alarm and suppression systems?

Fire Suppression Systems

- ☐ Does the facility have a suppression system(s)
- ☐ The type of suppression system is: _____
- ☐ Is the system adequate for the hazards in the workplace?
- ☐ Is the system available throughout facility?
- ☐ If not, what are the areas that are not served by the system? _____
- ☐ Has the system been tested in the last year?
Date of test: _____
- ☐ Are valves kept in the open position?
- ☐ Are gauges properly set and maintained?
- ☐ Are fire extinguishers appropriate for type of hazards?³
- ☐ Are fire extinguishers available on all floors?
- ☐ Are fire extinguishers easy to get to?
- ☐ Are fire extinguishers inspected and charged?
Date of inspection: _____
- ☐ Are inspection/testing tags on fire extinguishers?
- ☐ Have personnel been trained to use fire extinguishers?

Exits ⁴

- ☐ Are exit doors unlocked?
- ☐ Are exit doors not blocked?
- ☐ Are there enough exits for the number of occupants?
- ☐ Do exits lead to a public way?

- ☐ Are exit signs placed where they can be seen?
- ☐ Are exit signs properly illuminated?
- ☐ Do doors open in the direction of travel?
- ☐ Are fire doors kept closed?
- ☐ Are aisles and passageways clear?
- ☐ Are stairways wide enough for the number of occupants?
- ☐ Do stairs have non-slip tread?
- ☐ Do the stairways have handrails?
- ☐ Are there maps or diagrams on each floor or section showing the location of exits?

Housekeeping

- ☐ Is trash put in sealed containers and collected on a regular basis?
- ☐ Are cleaning materials sealed and stored properly?
- ☐ Are spills quickly and properly cleaned up?
- ☐ Are housekeeping and maintenance procedures up to date and in writing?

Hazardous Materials

- ☐ Are materials that can easily burn, explode and/or give off poisonous fumes used or stored in the workplace?
- ☐ Is there an up-to-date list of all hazardous chemicals?
- ☐ Are material safety data sheets for all hazardous chemicals available?
- ☐ Are flammable and other high hazard materials stored separately?
- ☐ Are chemicals properly marked and labeled?
- ☐ Is there a laboratory on the premises?
- ☐ If yes, is there a chemical hygiene plan on file?
- ☐ Are compressed gases properly capped and chained?

Heating, Ventilation and Air Conditioning (HVAC) Systems

- ☐ Are air intakes located and designed to prevent entry of outside pollutants or recirculated air?
- ☐ Are dampers and detectors in ducts properly arranged and maintained?

- ☐ Do automatic controls work properly?
- ☐ Is the system balanced and properly maintained?
- ☐ Are temperature controls tamper-resistant?
- ☐ Are supply air and return diffusers not blocked?

Electrical

- ☐ Is the circuit protection and wiring adequate?
- ☐ Is the use of temporary wiring and extension cords limited?
- ☐ Are frayed or damaged wires taken out of service?
- ☐ Are the circuits and machinery grounded?
- ☐ Are electrical panel boxes closed?
- ☐ Are the circuits capable of handling coffee pots, portable heaters, etc.?
- ☐ Are coffee pots, portable heaters and other items unplugged when not in use?
- ☐ Are open flames and heaters kept away from materials that could burn?

³ National Fire Protection Association, NFPA 10, *Standards for Portable Fire Extinguishers*, 1998 Edition

⁴ National Fire Protection Association, *Means of Egress, NFPA 101 Life Safety Code*, 2000 Edition, Chapter 7, Pages 43-68

OSHA Regulations (Standards - 29 CFR)

Definition of "Trade Secret" (Mandatory) - 1910.1200 App D

[□ OSHA Regulations \(Standards - 29 CFR\) - Table of Contents](#)

- **Standard Number:** 1910.1200 App D
 - **Standard Title:** Definition of "Trade Secret" (Mandatory)
 - **SubPart Number:** Z
 - **SubPart Title:** Toxic and Hazardous Substances
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The following is a reprint of the "Restatement of Torts" section 757, comment b (1939):

b. "Definition of trade secret." A trade secret may consist of any formula, pattern, device or compilation of information which is used in one's business, and which gives him an opportunity to obtain an advantage over competitors who do not know or use it. It may be a formula for a chemical compound, a process of manufacturing, treating or preserving materials, a pattern for a machine or other device, or a list of customers. It differs from other secret information in a business (see s759 of the Restatement of Torts which is not included in this Appendix) in that it is not simply information as to single or ephemeral events in the conduct of the business, as, for example, the amount or other terms of a secret bid for a contract or the salary of certain employees, or the security investments made or contemplated, or the date fixed for the announcement of a new policy or for bringing out a new model or the like. A trade secret is a process or device for continuous use in the operations of the business. Generally it relates to the production of goods, as, for example, a machine or formula for the production of an article. It may, however, relate to the sale of goods or to other operations in the business, such as a code for determining discounts, rebates or other concessions in a price list or catalogue, or a list of specialized customers, or a method of bookkeeping or other office management.

"Secrecy." The subject matter of a trade secret must be secret. Matters of public knowledge or of general knowledge in an industry cannot be appropriated by one as his secret. Matters which are completely disclosed by the goods which one markets cannot be his secret. Substantially, a trade secret is known only in the particular business in which it is used. It is not requisite that only the proprietor of the business know it. He may, without losing his protection, communicate it to employees involved in its use. He may likewise communicate it to others pledged to secrecy. Others may also know of it independently, as, for example, when they have discovered the process or formula by independent invention and are keeping it secret. Nevertheless, a substantial element of secrecy must exist, so that, except by the use of improper means, there would be difficulty in acquiring the information. An exact definition of a trade secret is not

possible. Some factors to be considered in determining whether given information is one's trade secret are: (1) The extent to which the information is known outside of his business; (2) the extent to which it is known by employees and others involved in his business; (3) the extent of measures taken by him to guard the secrecy of the information; (4) the value of the information to him and his competitors; (5) the amount of effort or money expended by him in developing the information; (6) the ease or difficulty with which the information could be properly acquired or duplicated by others.

"Novelty and prior art." A trade secret may be a device or process which is patentable; but it need not be that. It may be a device or process which is clearly anticipated in the prior art or one which is merely a mechanical improvement that a good mechanic can make. Novelty and invention are not requisite for a trade secret as they are for patentability. These requirements are essential to patentability because a patent protects against unlicensed use of the patented device or process even by one who discovers it properly through independent research. The patent monopoly is a reward to the inventor. But such is not the case with a trade secret. Its protection is not based on a policy of rewarding or otherwise encouraging the development of secret processes or devices. The protection is merely against breach of faith and reprehensible means of learning another's secret. For this limited protection it is not appropriate to require also the kind of novelty and invention which is a requisite of patentability. The nature of the secret is, however, an important factor in determining the kind of relief that is appropriate against one who is subject to liability under the rule stated in this Section. Thus, if the secret consists of a device or process which is a novel invention, one who acquires the secret wrongfully is ordinarily enjoined from further use of it and is required to account for the profits derived from his past use. If, on the other hand, the secret consists of mechanical improvements that a good mechanic can make without resort to the secret, the wrongdoer's liability may be limited to damages, and an injunction against future use of the improvements made with the aid of the secret may be inappropriate.

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OSHA Regulations (Standards - 29 CFR)
Information sources (Advisory) - 1910.1200 App C

 [OSHA Regulations \(Standards - 29 CFR\) - Table of Contents](#)

- **Standard Number:** 1910.1200 App C
 - **Standard Title:** Information sources (Advisory)
 - **SubPart Number:** Z
 - **SubPart Title:** Toxic and Hazardous Substances
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Editorial Note: The Federal Register of March 7, 1996, removed 1910.1200 Appendix C.

[61 FR 9227, March 7, 1996]

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OSHA Regulations (Standards - 29 CFR)

Hazard determination (Mandatory) - 1910.1200 App B

[☐ OSHA Regulations \(Standards - 29 CFR\) - Table of Contents](#)

- **Standard Number:** 1910.1200 App B
 - **Standard Title:** Hazard determination (Mandatory)
 - **SubPart Number:** Z
 - **SubPart Title:** Toxic and Hazardous Substances
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The quality of a hazard communication program is largely dependent upon the adequacy and accuracy of the hazard determination. The hazard determination requirement of this standard is performance-oriented. Chemical manufacturers, importers, and employers evaluating chemicals are not required to follow any specific methods for determining hazards, but they must be able to demonstrate that they have adequately ascertained the hazards of the chemicals produced or imported in accordance with the criteria set forth in this Appendix.

Hazard evaluation is a process which relies heavily on the professional judgment of the evaluator, particularly in the area of chronic hazards. The performance-orientation of the hazard determination does not diminish the duty of the chemical manufacturer, importer or employer to conduct a thorough evaluation, examining all relevant data and producing a scientifically defensible evaluation. For purposes of this standard, the following criteria shall be used in making hazard determinations that meet the requirements of this standard.

1. "Carcinogenicity:" As described in paragraph (d)(4) of this section and Appendix A of this section, a determination by the National Toxicology Program, the International Agency for Research on Cancer, or OSHA that a chemical is a carcinogen or potential carcinogen will be considered conclusive evidence for purposes of this section. In addition, however, all available scientific data on carcinogenicity must be evaluated in accordance with the provisions of this Appendix and the requirements of the rule.

2. "Human data:" Where available, epidemiological studies and case reports of adverse health effects shall be considered in the evaluation.

3. "Animal data:" Human evidence of health effects in exposed populations is generally not available for the majority of chemicals produced or used in the workplace. Therefore, the available results of toxicological testing in animal populations shall be used to predict the health effects that may be

experienced by exposed workers. In particular, the definitions of certain acute hazards refer to specific animal testing results (see Appendix A).

4. "Adequacy and reporting of data." The results of any studies which are designed and conducted according to established scientific principles, and which report statistically significant conclusions regarding the health effects of a chemical, shall be a sufficient basis for a hazard determination and reported on any material safety data sheet. In vitro studies alone generally do not form the basis for a definitive finding of hazard under the HCS since they have a positive or negative result rather than a statistically significant finding.

The chemical manufacturer, importer, or employer may also report the results of other scientifically valid studies which tend to refute the findings of hazard.

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OSHA Regulations (Standards - 29 CFR)
Health Hazard Definitions (Mandatory) - 1910.1200 App A

[□ OSHA Regulations \(Standards - 29 CFR\) - Table of Contents](#)

- **Standard Number:** 1910.1200 App A
 - **Standard Title:** Health Hazard Definitions (Mandatory)
 - **SubPart Number:** Z
 - **SubPart Title:** Toxic and Hazardous Substances
-

Although safety hazards related to the physical characteristics of a chemical can be objectively defined in terms of testing requirements (e.g. flammability), health hazard definitions are less precise and more subjective. Health hazards may cause measurable changes in the body - such as decreased pulmonary function. These changes are generally indicated by the occurrence of signs and symptoms in the exposed employees - such as shortness of breath, a non-measurable, subjective feeling. Employees exposed to such hazards must be apprised of both the change in body function and the signs and symptoms that may occur to signal that change.

The determination of occupational health hazards is complicated by the fact that many of the effects or signs and symptoms occur commonly in non-occupationally exposed populations, so that effects of exposure are difficult to separate from normally occurring illnesses. Occasionally, a substance causes an effect that is rarely seen in the population at large, such as angiosarcomas caused by vinyl chloride exposure, thus making it easier to ascertain that the occupational exposure was the primary causative factor. More often, however, the effects are common, such as lung cancer. The situation is further complicated by the fact that most chemicals have not been adequately tested to determine their health hazard potential, and data do not exist to substantiate these effects.

There have been many attempts to categorize effects and to define them in various ways. Generally, the terms "acute" and "chronic" are used to delineate between effects on the basis of severity or duration. "Acute" effects usually occur rapidly as a result of short-term exposures, and are of short duration. "Chronic" effects generally occur as a result of long-term exposure, and are of long duration.

The acute effects referred to most frequently are those defined by the American National Standards Institute (ANSI) standard for Precautionary Labeling of Hazardous Industrial Chemicals (Z129.1-1988) - irritation, corrosivity, sensitization and lethal dose. Although these are important health effects, they do not adequately cover the considerable range of acute effects which may occur as a result of occupational exposure, such as, for example, narcosis.

Similarly, the term chronic effect is often used to cover only carcinogenicity, teratogenicity, and mutagenicity. These effects are obviously a concern in the workplace, but again, do not adequately cover the area of chronic

effects, excluding, for example, blood dyscrasias (such as anemia), chronic bronchitis and liver atrophy.

The goal of defining precisely, in measurable terms, every possible health effect that may occur in the workplace as a result of chemical exposures cannot realistically be accomplished. This does not negate the need for employees to be informed of such effects and protected from them. Appendix B, which is also mandatory, outlines the principles and procedures of hazard assessment.

For purposes of this section, any chemicals which meet any of the following definitions, as determined by the criteria set forth in Appendix B are health hazards. However, this is not intended to be an exclusive categorization scheme. If there are available scientific data that involve other animal species or test methods, they must also be evaluated to determine the applicability of the HCS.

1. "Carcinogen:" A chemical is considered to be a carcinogen if:

(a) It has been evaluated by the International Agency for Research on Cancer (IARC), and found to be a carcinogen or potential carcinogen; or

(b) It is listed as a carcinogen or potential carcinogen in the Annual Report on Carcinogens published by the National Toxicology Program (NTP) (latest edition); or,

(c) It is regulated by OSHA as a carcinogen.

2. "Corrosive:" A chemical that causes visible destruction of, or irreversible alterations in, living tissue by chemical action at the site of contact. For example, a chemical is considered to be corrosive if, when tested on the intact skin of albino rabbits by the method described by the U.S. Department of Transportation in appendix A to 49 CFR part 173, it destroys or changes irreversibly the structure of the tissue at the site of contact following an exposure period of four hours. This term shall not refer to action on inanimate surfaces.

3. "Highly toxic:" A chemical falling within any of the following categories:

(a) A chemical that has a median lethal dose (LD(50)) of 50 milligrams or less per kilogram of body weight when administered orally to albino rats weighing between 200 and 300 grams each.

(b) A chemical that has a median lethal dose (LD(50)) of 200 milligrams or less per kilogram of body weight when administered by continuous contact for 24 hours (or less if death occurs within 24 hours) with the bare skin of albino rabbits weighing between two and three kilograms each.

(c) A chemical that has a median lethal concentration (LC(50)) in air of 200 parts per million by volume or less of gas or vapor, or 2 milligrams per liter or less of mist, fume, or dust, when administered by continuous inhalation for one hour (or less if death occurs within one hour) to albino rats weighing between 200 and 300 grams each.

4. "Irritant:" A chemical, which is not corrosive, but which causes a reversible inflammatory effect on living tissue by chemical action at the site of contact. A chemical is a skin irritant if, when tested on the intact skin of

albino rabbits by the methods of 16 CFR 1500.41 for four hours exposure or by other appropriate techniques, it results in an empirical score of five or more. A chemical is an eye irritant if so determined under the procedure listed in 16 CFR 1500.42 or other appropriate techniques.

5. "Sensitizer:" A chemical that causes a substantial proportion of exposed people or animals to develop an allergic reaction in normal tissue after repeated exposure to the chemical.

6. "Toxic." A chemical falling within any of the following categories:

(a) A chemical that has a median lethal dose (LD(50)) of more than 50 milligrams per kilogram but not more than 500 milligrams per kilogram of body weight when administered orally to albino rats weighing between 200 and 300 grams each.

(b) A chemical that has a median lethal dose (LD(50)) of more than 200 milligrams per kilogram but not more than 1,000 milligrams per kilogram of body weight when administered by continuous contact for 24 hours (or less if death occurs within 24 hours) with the bare skin of albino rabbits weighing between two and three kilograms each.

(c) A chemical that has a median lethal concentration (LC(50)) in air of more than 200 parts per million but not more than 2,000 parts per million by volume of gas or vapor, or more than two milligrams per liter but not more than 20 milligrams per liter of mist, fume, or dust, when administered by continuous inhalation for one hour (or less if death occurs within one hour) to albino rats weighing between 200 and 300 grams each.

7. "Target organ effects."

The following is a target organ categorization of effects which may occur, including examples of signs and symptoms and chemicals which have been found to cause such effects. These examples are presented to illustrate the range and diversity of effects and hazards found in the workplace, and the broad scope employers must consider in this area, but are not intended to be all-inclusive.

a. Hepatotoxins: Chemicals which produce liver damage

Signs & Symptoms: Jaundice; liver enlargement

Chemicals: Carbon tetrachloride; nitrosamines

b. Nephrotoxins: Chemicals which produce kidney damage

Signs & Symptoms: Edema; proteinuria

Chemicals: Halogenated hydrocarbons; uranium

c. Neurotoxins: Chemicals which produce their primary toxic effects on the nervous system

Signs & Symptoms: Narcosis; behavioral changes; decrease in motor functions

Chemicals: Mercury; carbon disulfide

d. Agents which act on the blood or hemato-poietic system: Decrease hemoglobin function; deprive the body tissues of oxygen

Signs & Symptoms: Cyanosis; loss of consciousness

Chemicals: Carbon monoxide; cyanides

- e. Agents which damage the lung: Chemicals which irritate or damage pulmonary tissue
Signs & Symptoms: Cough; tightness in chest; shortness of breath
Chemicals: Silica; asbestos
- f. Reproductive toxins: Chemicals which affect the reproductive capabilities including chromosomal damage (mutations) and effects on fetuses (teratogenesis)
Signs & Symptoms: Birth defects; sterility
Chemicals: Lead; DBCP
- g. Cutaneous hazards: Chemicals which affect the dermal layer of the body
Signs & Symptoms: Defatting of the skin; rashes; irritation
Chemicals: Ketones; chlorinated compounds
- h. Eye hazards: Chemicals which affect the eye or visual capacity
Signs & Symptoms: Conjunctivitis; corneal damage
Chemicals: Organic solvents; acids

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OSHA Regulations (Standards - 29 CFR)
Hazard Communication. - 1910.1200

 [OSHA Regulations \(Standards - 29 CFR\) - Table of Contents](#)

- **Standard Number:** 1910.1200
 - **Standard Title:** Hazard Communication.
 - **SubPart Number:** Z
 - **SubPart Title:** Toxic and Hazardous Substances
-



(a)

"Purpose."

(a)(1)

The purpose of this section is to ensure that the hazards of all chemicals produced or imported are evaluated, and that information concerning their hazards is transmitted to employers and employees. This transmittal of information is to be accomplished by means of comprehensive hazard communication programs, which are to include container labeling and other forms of warning, material safety data sheets and employee training.

..1910.1200(a)(2)

(a)(2)

This occupational safety and health standard is intended to address comprehensively the issue of evaluating the potential hazards of chemicals, and communicating information concerning hazards and appropriate protective measures to employees, and to preempt any legal requirements of a state, or political subdivision of a state, pertaining to this subject. Evaluating the potential hazards of chemicals, and communicating information concerning hazards and appropriate protective measures to employees, may include, for example, but is not limited to, provisions for: developing and maintaining a written hazard communication program for the workplace, including lists of hazardous chemicals present; labeling of containers of chemicals in the workplace, as well as of containers of chemicals being shipped

to other workplaces; preparation and distribution of material safety data sheets to employees and downstream employers; and development and implementation of employee training programs regarding hazards of chemicals and protective measures. Under section 18 of the Act, no state or political subdivision of a state may adopt or enforce, through any court or agency, any requirement relating to the issue addressed by this Federal standard, except pursuant to a Federally-approved state plan.

(b)

"Scope and application."

(b)(1)

This section requires chemical manufacturers or importers to assess the hazards of chemicals which they produce or import, and all employers to provide information to their employees about the hazardous chemicals to which they are exposed, by means of a hazard communication program, labels and other forms of warning, material safety data sheets, and information and training. In addition, this section requires distributors to transmit the required information to employers. (Employers who do not produce or import chemicals need only focus on those parts of this rule that deal with establishing a workplace program and communicating information to their workers. Appendix E of this section is a general guide for such employers to help them determine their compliance obligations under the rule.)

(b)(2)

This section applies to any chemical which is known to be present in the workplace in such a manner that employees may be exposed under normal conditions of use or in a foreseeable emergency.

(b)(3)

This section applies to laboratories only as follows:

(b)(3)(i)

Employers shall ensure that labels on incoming containers of hazardous chemicals are not removed or defaced;

..1910.1200(b)(3)(ii)

(b)(3)(ii)

Employers shall maintain any material safety data sheets that are received with incoming shipments of hazardous chemicals, and ensure that they are readily accessible during each workshift to laboratory employees when they are in their work areas;

(b)(3)(iii)

Employers shall ensure that laboratory employees are provided information and training in accordance with paragraph (h) of this section, except for the location and availability of the written hazard communication program under paragraph (h)(2)(iii) of this section; and,

(b)(3)(iv)

Laboratory employers that ship hazardous chemicals are considered to be either a chemical manufacturer or a distributor under this rule, and thus must ensure that any containers of hazardous chemicals leaving the laboratory are labeled in accordance with paragraph (f)(1) of this section, and that a material safety data sheet is provided to distributors and other employers in accordance with paragraphs (g)(6) and (g)(7) of this section.

(b)(4)

In work operations where employees only handle chemicals in sealed containers which are not opened under normal conditions of use (such as are found in marine cargo handling, warehousing, or retail sales), this section applies to these operations only as follows:

(b)(4)(i)

Employers shall ensure that labels on incoming containers of hazardous chemicals are not removed or defaced;

..1910.1200(b)(4)(ii)

(b)(4)(ii)

Employers shall maintain copies of any material safety data sheets that are received with incoming shipments of the sealed containers of hazardous chemicals, shall obtain a material safety data sheet as soon as possible for sealed containers of hazardous chemicals received without a material safety data sheet if an employee requests the material safety data sheet, and shall ensure that the material safety data sheets are readily accessible during each work shift to employees when they are in their work area(s); and,

(b)(4)(iii)

Employers shall ensure that employees are provided with information and training in accordance with paragraph (h) of this section (except for the location and availability of the written hazard communication program under paragraph (h)(2)(iii) of this section), to the extent necessary to protect them in the event of

a spill or leak of a hazardous chemical from a sealed container.

(b)(5)

This section does not require labeling of the following chemicals:

(b)(5)(i)

Any pesticide as such term is defined in the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. 136 et seq.), when subject to the labeling requirements of that Act and labeling regulations issued under that Act by the Environmental Protection Agency;

(b)(5)(ii)

Any chemical substance or mixture as such terms are defined in the Toxic Substances Control Act (15 U.S.C. 2601 et seq.), when subject to the labeling requirements of that Act and labeling regulations issued under that Act by the Environmental Protection Agency;

..1910.1200(b)(5)(iii)

(b)(5)(iii)

Any food, food additive, color additive, drug, cosmetic, or medical or veterinary device or product, including materials intended for use as ingredients in such products (e.g. flavors and fragrances), as such terms are defined in the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 301 et seq.) or the Virus-Serum-Toxin Act of 1913 (21 U.S.C. 151 et seq.), and regulations issued under those Acts, when they are subject to the labeling requirements under those Acts by either the Food and Drug Administration or the Department of Agriculture;

(b)(5)(iv)

Any distilled spirits (beverage alcohols), wine, or malt beverage intended for nonindustrial use, as such terms are defined in the Federal Alcohol Administration Act (27 U.S.C. 201 et seq.) and regulations issued under that Act, when subject to the labeling requirements of that Act and labeling regulations issued under that Act by the Bureau of Alcohol, Tobacco, and Firearms;

(b)(5)(v)

Any consumer product or hazardous substance as those terms are defined in the Consumer Product Safety Act (15 U.S.C. 2051 et seq.) and Federal Hazardous Substances Act (15 U.S.C. 1261 et seq.) respectively, when subject to a consumer product safety standard or labeling requirement of those Acts, or regulations issued under those Acts by the Consumer Product Safety Commission; and,

(b)(5)(vi)

Agricultural or vegetable seed treated with pesticides and labeled in accordance with the Federal Seed Act (7 U.S.C. 1551 et seq.) and the labeling regulations issued under that Act by the Department of Agriculture.

..1910.1200(b)(6)

(b)(6)

This section does not apply to:

(b)(6)(i)

Any hazardous waste as such term is defined by the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended (42 U.S.C. 6901 et seq.), when subject to regulations issued under that Act by the Environmental Protection Agency;

(b)(6)(ii)

Any hazardous substance as such term is defined by the Comprehensive Environmental Response, Compensation and Liability ACT (CERCLA) (42 U.S.C. 9601 et seq.) when the hazardous substance is the focus of remedial or removal action being conducted under CERCLA in accordance with the Environmental Protection Agency regulations.

(b)(6)(iii)

Tobacco or tobacco products;

(b)(6)(iv)

Wood or wood products, including lumber which will not be processed, where the chemical manufacturer or importer can establish that the only hazard they pose to employees is the potential for flammability or combustibility (wood or wood products which have been treated with a hazardous chemical covered by this standard, and wood which may be subsequently sawed or cut, generating dust, are not exempted);

(b)(6)(v)

Articles (as that term is defined in paragraph (c) of this section);

(b)(6)(vi)

Food or alcoholic beverages which are sold, used, or prepared in a retail establishment (such as a grocery store, restaurant, or drinking place), and foods intended for personal consumption by employees while in the workplace;

..1910.1200(b)(6)(vii)

(b)(6)(vii)

Any drug, as that term is defined in the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 301 et seq.), when it is in solid, final form for direct administration to the patient (e.g., tablets or pills); drugs which are packaged by the chemical manufacturer for sale to consumers in a retail establishment (e.g., over-the-counter drugs); and drugs intended for personal consumption by employees while in the workplace (e.g., first aid supplies);

(b)(6)(viii)

Cosmetics which are packaged for sale to consumers in a retail establishment, and cosmetics intended for personal consumption by employees while in the workplace;

(b)(6)(ix)

Any consumer product or hazardous substance, as those terms are defined in the Consumer Product Safety Act (15 U.S.C. 2051 et seq.) and Federal Hazardous Substances Act (15 U.S.C. 1261 et seq.) respectively, where the employer can show that it is used in the workplace for the purpose intended by the chemical manufacturer or importer of the product, and the use results in a duration and frequency of exposure which is not greater than the range of exposures that could reasonably be experienced by consumers when used for the purpose intended;

(b)(6)(x)

Nuisance particulates where the chemical manufacturer or importer can establish that they do not pose any physical or health hazard covered under this section;

(b)(6)(xi)

Ionizing and nonionizing radiation; and,

(b)(6)(xii)

Biological hazards.

(c)

"Definitions."

"Article" means a manufactured item other than a fluid or particle: (i) which is formed to a specific shape or design during manufacture; (ii) which has end use function(s) dependent in whole or in part upon its shape or design during end use; and (iii) which under normal conditions of use does not release more than very small quantities, e.g., minute or trace amounts of a hazardous chemical (as determined under paragraph (d) of this section), and does not pose a physical hazard or health risk to employees.

"Assistant Secretary" means the Assistant Secretary of Labor for Occupational Safety and Health, U.S. Department of Labor, or designee.

"Chemical" means any element, chemical compound or mixture of elements and/or compounds.

"Chemical manufacturer" means an employer with a workplace where chemical(s) are produced for use or distribution.

"Chemical name" means the scientific designation of a chemical in accordance with the nomenclature system developed by the International Union of Pure and Applied Chemistry (IUPAC) or the Chemical Abstracts Service (CAS) rules of nomenclature, or a name which will clearly identify the chemical for the purpose of conducting a hazard evaluation.

"Combustible liquid" means any liquid having a flashpoint at or above 100 deg. F (37.8 deg. C), but below 200 deg. F (93.3 deg. C), except any mixture having components with flashpoints of 200 deg. F (93.3 deg. C), or higher, the total volume of which make up 99 percent or more of the total volume of the mixture.

"Commercial account" means an arrangement whereby a retail distributor sells hazardous chemicals to an employer, generally in large quantities over time and/or at costs that are below the regular retail price.

"Common name" means any designation or identification such as code name, code number, trade name, brand name or generic name used to identify a chemical other than by its chemical name.

"Compressed gas" means:

(i) A gas or mixture of gases having, in a container, an absolute pressure exceeding 40 psi at 70 deg. F (21.1 deg. C); or

(ii) A gas or mixture of gases having, in a container, an absolute pressure exceeding 104 psi at 130 deg. F (54.4 deg. C) regardless of the pressure at 70 deg. F (21.1 deg. C); or

(iii) A liquid having a vapor pressure exceeding 40 psi at 100 deg. F (37.8 deg. C) as determined by ASTM D-323-72.

"Container" means any bag, barrel, bottle, box, can, cylinder, drum, reaction vessel, storage tank, or the like that contains a hazardous chemical. For purposes of this section, pipes or piping systems, and engines, fuel tanks, or other operating systems in a vehicle, are not considered to be containers.

"Designated representative" means any individual or organization to whom an employee gives written authorization to exercise such employee's rights under this section. A recognized or certified collective bargaining agent shall be treated automatically as a designated representative without regard to written employee authorization.

"Director" means the Director, National Institute for Occupational Safety and Health, U.S. Department of Health and Human Services, or designee.

"Distributor" means a business, other than a chemical manufacturer or importer, which supplies hazardous chemicals to other distributors or to employers.

"Employee" means a worker who may be exposed to hazardous chemicals under normal operating conditions or in foreseeable emergencies. Workers such as office workers or bank tellers who encounter hazardous chemicals only in non-routine, isolated instances are not covered.

"Employer" means a person engaged in a business where chemicals are either used, distributed, or are produced for use or distribution, including a contractor or subcontractor.

"Explosive" means a chemical that causes a sudden, almost instantaneous release of pressure, gas, and heat when subjected to sudden shock, pressure, or high temperature.

"Exposure or exposed" means that an employee is subjected in the course of employment to a chemical that is a physical or health hazard, and includes potential (e.g. accidental or possible) exposure.

"Subjected" in terms of health hazards includes any route of entry (e.g. inhalation, ingestion, skin contact or absorption.)

"Flammable" means a chemical that falls into one of the following categories:

(i) "Aerosol, flammable" means an aerosol that, when tested by the method described in 16 CFR 1500.45, yields a flame projection exceeding 18 inches at full valve opening, or a flashback (a flame extending back to the valve) at any degree of valve opening;

(ii) "Gas, flammable" means: (A) A gas that, at ambient temperature and pressure, forms a flammable mixture with air at a concentration of thirteen (13) percent by volume or less; or

(B) A gas that, at ambient temperature and pressure, forms a range of flammable mixtures with air wider than twelve (12) percent by volume, regardless of the lower limit;

(iii) "Liquid, flammable" means any liquid having a flashpoint below 100 deg. F (37.8 deg. C), except any mixture having components with flashpoints of 100 deg. F (37.8 deg. C) or higher, the total of which make up 99 percent or more of the total volume of the mixture.

(iv) "Solid, flammable" means a solid, other than a blasting agent or explosive as defined in 1910.109(a), that is liable to cause fire through friction, absorption of moisture, spontaneous chemical change, or retained heat from manufacturing or processing, or which can be ignited readily and when ignited burns so vigorously and persistently as to create a serious hazard. A chemical shall be considered to be a flammable solid if, when tested by the method described in 16 CFR 1500.44, it ignites and burns with a self-sustained flame at a rate greater than one-tenth of an inch per second along its major axis.

"Flashpoint" means the minimum temperature at which a liquid gives off a vapor in sufficient concentration to ignite when tested as follows:

(i) Tagliabue Closed Tester (See American National Standard Method of Test for Flash Point by Tag Closed Tester, Z11.24-1979 (ASTM D 56-79)) for liquids with a viscosity of less than 45 Saybolt Universal Seconds (SUS) at 100 deg. F (37.8 deg. C), that do not contain suspended solids and do not have a tendency to form a surface film under test; or

(ii) Pensky-Martens Closed Tester (see American National Standard Method of Test for Flash Point by Pensky-Martens Closed Tester, Z11.7-1979 (ASTM D 93-79)) for liquids with a viscosity equal to or greater than 45 SUS at 100 deg. F (37.8 deg. C), or that contain suspended solids, or that have a tendency to form a surface film under test; or

(iii) Setaflash Closed Tester (see American National Standard Method of Test for Flash Point by Setaflash Closed Tester (ASTM D 3278-78)).

Organic peroxides, which undergo autoaccelerating thermal decomposition, are excluded from any of the flashpoint determination methods specified above.

"Foreseeable emergency" means any potential occurrence such as, but not limited to, equipment failure, rupture of containers, or failure of control equipment which could result in an uncontrolled release of a hazardous chemical into the workplace.

"Hazardous chemical" means any chemical which is a physical hazard or a health hazard.

"Hazard warning" means any words, pictures, symbols, or combination thereof appearing on a label or other appropriate form of warning which convey the specific physical and health hazard(s), including target organ effects, of the chemical(s) in the container(s). (See the definitions for "physical hazard" and

"health hazard" to determine the hazards which must be covered.)

"Health hazard" means a chemical for which there is statistically significant evidence based on at least one study conducted in accordance with established scientific principles that acute or chronic health effects may occur in exposed employees. The term "health hazard" includes chemicals which are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, sensitizers, hepatotoxins, nephrotoxins, neurotoxins, agents which act on the hematopoietic system, and agents which damage the lungs, skin, eyes, or mucous membranes. Appendix A provides further definitions and explanations of the scope of health hazards covered by this section, and Appendix B describes the criteria to be used to determine whether or not a chemical is to be considered hazardous for purposes of this standard.

"Identity" means any chemical or common name which is indicated on the material safety data sheet (MSDS) for the chemical. The identity used shall permit cross-references to be made among the required list of hazardous chemicals, the label and the MSDS.

"Immediate use" means that the hazardous chemical will be under the control of and used only by the person who transfers it from a labeled container and only within the work shift in which it is transferred.

"Importer" means the first business with employees within the Customs Territory of the United States which receives hazardous chemicals produced in other countries for the purpose of supplying them to distributors or employers within the United States.

"Label" means any written, printed, or graphic material displayed on or affixed to containers of hazardous chemicals.

"Material safety data sheet (MSDS)" means written or printed material concerning a hazardous chemical which is prepared in accordance with paragraph (g) of this section.

"Mixture" means any combination of two or more chemicals if the combination is not, in whole or in part, the result of a chemical reaction.

"Organic peroxide" means an organic compound that contains the bivalent -O-O-structure and which may be considered to be a structural derivative of hydrogen peroxide where one or both of the hydrogen atoms has been replaced by an organic radical.

"Oxidizer" means a chemical other than a blasting agent or explosive as defined in 1910.109(a), that initiates or promotes combustion in other materials, thereby causing fire either of itself or through the release of oxygen or other gases.

"Physical hazard" means a chemical for which there is scientifically valid evidence that it is a combustible liquid, a compressed gas, explosive, flammable, an organic peroxide, an oxidizer,

pyrophoric, unstable (reactive) or water-reactive.

"Produce" means to manufacture, process, formulate, blend, extract, generate, emit, or repackage.

"Pyrophoric" means a chemical that will ignite spontaneously in air at a temperature of 130 deg. F (54.4 deg. C) or below.

"Responsible party" means someone who can provide additional information on the hazardous chemical and appropriate emergency procedures, if necessary.

"Specific chemical identity" means the chemical name, Chemical Abstracts Service (CAS) Registry Number, or any other information that reveals the precise chemical designation of the substance.

"Trade secret" means any confidential formula, pattern, process, device, information or compilation of information that is used in an employer's business, and that gives the employer an opportunity to obtain an advantage over competitors who do not know or use it. Appendix D sets out the criteria to be used in evaluating trade secrets.

"Unstable (reactive)" means a chemical which in the pure state, or as produced or transported, will vigorously polymerize, decompose, condense, or will become self-reactive under conditions of shocks, pressure or temperature.

"Use" means to package, handle, react, emit, extract, generate as a byproduct, or transfer.

"Water-reactive" means a chemical that reacts with water to release a gas that is either flammable or presents a health hazard.

"Work area" means a room or defined space in a workplace where hazardous chemicals are produced or used, and where employees are present.

"Workplace" means an establishment, job site, or project, at one geographical location containing one or more work areas.

..1910.1200(d)

(d)

"Hazard determination."

(d)(1)

Chemical manufacturers and importers shall evaluate chemicals produced in their workplaces or imported

by them to determine if they are hazardous. Employers are not required to evaluate chemicals unless they choose not to rely on the evaluation performed by the chemical manufacturer or importer for the chemical to satisfy this requirement.

(d)(2)

Chemical manufacturers, importers or employers evaluating chemicals shall identify and consider the available scientific evidence concerning such hazards. For health hazards, evidence which is statistically significant and which is based on at least one positive study conducted in accordance with established scientific principles is considered to be sufficient to establish a hazardous effect if the results of the study meet the definitions of health hazards in this section. Appendix A shall be consulted for the scope of health hazards covered, and Appendix B shall be consulted for the criteria to be followed with respect to the completeness of the evaluation, and the data to be reported.

(d)(3)

The chemical manufacturer, importer or employer evaluating chemicals shall treat the following sources as establishing that the chemicals listed in them are hazardous:

(d)(3)(i)

29 CFR part 1910, subpart Z, Toxic and Hazardous Substances, Occupational Safety and Health Administration (OSHA); or,

..1910.1200(d)(3)(ii)

(d)(3)(ii)

"Threshold Limit Values for Chemical Substances and Physical Agents in the Work Environment," American Conference of Governmental Industrial Hygienists (ACGIH) (latest edition). The chemical manufacturer, importer, or employer is still responsible for evaluating the hazards associated with the chemicals in these source lists in accordance with the requirements of this standard.

(d)(4)

Chemical manufacturers, importers and employers evaluating chemicals shall treat the following sources as establishing that a chemical is a carcinogen or potential carcinogen for hazard communication purposes:

(d)(4)(i)

National Toxicology Program (NTP), "Annual Report on Carcinogens" (latest edition);

(d)(4)(ii)

International Agency for Research on Cancer (IARC) "Monographs" (latest editions); or

(d)(4)(iii)

29 CFR part 1910, subpart Z, Toxic and Hazardous Substances, Occupational Safety and Health Administration.

Note: The "Registry of Toxic Effects of Chemical Substances" published by the National Institute for Occupational Safety and Health indicates whether a chemical has been found by NTP or IARC to be a potential carcinogen.

(d)(5)

The chemical manufacturer, importer or employer shall determine the hazards of mixtures of chemicals as follows:

(d)(5)(i)

If a mixture has been tested as a whole to determine its hazards, the results of such testing shall be used to determine whether the mixture is hazardous;

..1910.1200(d)(5)(ii)

(d)(5)(ii)

If a mixture has not been tested as a whole to determine whether the mixture is a health hazard, the mixture shall be assumed to present the same health hazards as do the components which comprise one percent (by weight or volume) or greater of the mixture, except that the mixture shall be assumed to present a carcinogenic hazard if it contains a component in concentrations of 0.1 percent or greater which is considered to be a carcinogen under paragraph (d)(4) of this section;

(d)(5)(iii)

If a mixture has not been tested as a whole to determine whether the mixture is a physical hazard, the chemical manufacturer, importer, or employer may use whatever scientifically valid data is available to evaluate the physical hazard potential of the mixture; and,

(d)(5)(iv)

If the chemical manufacturer, importer, or employer has evidence to indicate that a component present in the mixture in concentrations of less than one percent (or in the case of carcinogens, less than 0.1 percent) could be released in concentrations which would exceed an established OSHA permissible exposure limit or ACGIH Threshold Limit Value, or could present a health risk to employees in those concentrations, the mixture shall be assumed to present the same hazard.

(d)(6)

Chemical manufacturers, importers, or employers evaluating chemicals shall describe in writing the procedures they use to determine the hazards of the chemical they evaluate. The written procedures are to be made available, upon request, to employees, their designated representatives, the Assistant Secretary and the Director. The written description may be incorporated into the written hazard communication program required under paragraph (e) of this section.

..1910.1200(e)

(e)

"Written hazard communication program."

(e)(1)

Employers shall develop, implement, and maintain at each workplace, a written hazard communication program which at least describes how the criteria specified in paragraphs (f), (g), and (h) of this section for labels and other forms of warning, material safety data sheets, and employee information and training will be met, and which also includes the following:

(e)(1)(i)

A list of the hazardous chemicals known to be present using an identity that is referenced on the appropriate material safety data sheet (the list may be compiled for the workplace as a whole or for individual work areas); and,

(e)(1)(ii)

The methods the employer will use to inform employees of the hazards of non-routine tasks (for example, the cleaning of reactor vessels), and the hazards associated with chemicals contained in unlabeled pipes in their work areas.

(e)(2)

"Multi-employer workplaces." Employers who produce, use, or store hazardous chemicals at a workplace

in such a way that the employees of other employer(s) may be exposed (for example, employees of a construction contractor working on-site) shall additionally ensure that the hazard communication programs developed and implemented under this paragraph (e) include the following:

(e)(2)(i)

The methods the employer will use to provide the other employer(s) on-site access to material safety data sheets for each hazardous chemical the other employer(s)' employees may be exposed to while working;

..1910.1200(e)(2)(ii)

(e)(2)(ii)

The methods the employer will use to inform the other employer(s) of any precautionary measures that need to be taken to protect employees during the workplace's normal operating conditions and in foreseeable emergencies; and,

(e)(2)(iii)

The methods the employer will use to inform the other employer(s) of the labeling system used in the workplace.

(e)(3)

The employer may rely on an existing hazard communication program to comply with these requirements, provided that it meets the criteria established in this paragraph (e).

(e)(4)

The employer shall make the written hazard communication program available, upon request, to employees, their designated representatives, the Assistant Secretary and the Director, in accordance with the requirements of 29 CFR 1910.1020 (e).

(e)(5)

Where employees must travel between workplaces during a workshift, i.e., their work is carried out at more than one geographical location, the written hazard communication program may be kept at the primary workplace facility.

(f)

"Labels and other forms of warning."

(f)(1)

The chemical manufacturer, importer, or distributor shall ensure that each container of hazardous chemicals leaving the workplace is labeled, tagged or marked with the following information:

..1910.1200(f)(1)(i)

(f)(1)(i)

Identity of the hazardous chemical(s);

(f)(1)(ii)

Appropriate hazard warnings; and

(f)(1)(iii)

Name and address of the chemical manufacturer, importer, or other responsible party.

(f)(2)

(f)(2)(i)

For solid metal (such as a steel beam or a metal casting), solid wood, or plastic items that are not exempted as articles due to their downstream use, or shipments of whole grain, the required label may be transmitted to the customer at the time of the initial shipment, and need not be included with subsequent shipments to the same employer unless the information on the label changes;

(f)(2)(ii)

The label may be transmitted with the initial shipment itself, or with the material safety data sheet that is to be provided prior to or at the time of the first shipment; and,

(f)(2)(iii)

This exception to requiring labels on every container of hazardous chemicals is only for the solid material itself, and does not apply to hazardous chemicals used in conjunction with, or known to be present with, the material and to which employees handling the items in transit may be exposed (for example, cutting fluids or pesticides in grains).

..1910.1200(f)(3)

(f)(3)

Chemical manufacturers, importers, or distributors shall ensure that each container of hazardous chemicals leaving the workplace is labeled, tagged, or marked in accordance with this section in a manner which does not conflict with the requirements of the Hazardous Materials Transportation Act (49 U.S.C. 1801 et seq.) and regulations issued under that Act by the Department of Transportation.

(f)(4)

If the hazardous chemical is regulated by OSHA in a substance-specific health standard, the chemical manufacturer, importer, distributor or employer shall ensure that the labels or other forms of warning used are in accordance with the requirements of that standard.

(f)(5)

Except as provided in paragraphs (f)(6) and (f)(7) of this section, the employer shall ensure that each container of hazardous chemicals in the workplace is labeled, tagged or marked with the following information:

(f)(5)(i)

Identity of the hazardous chemical(s) contained therein; and,

(f)(5)(ii)

Appropriate hazard warnings, or alternatively, words, pictures, symbols, or combination thereof, which provide at least general information regarding the hazards of the chemicals, and which, in conjunction with the other information immediately available to employees under the hazard communication program, will provide employees with the specific information regarding the physical and health hazards of the hazardous chemical.

..1910.1200(f)(6)

(f)(6)

The employer may use signs, placards, process sheets, batch tickets, operating procedures, or other such written materials in lieu of affixing labels to individual stationary process containers, as long as the alternative method identifies the containers to which it is applicable and conveys the information required by paragraph (f)(5) of this section to be on a label. The written materials shall be readily accessible to the employees in their work area throughout each work shift.

(f)(7)

The employer is not required to label portable containers into which hazardous chemicals are transferred from labeled containers, and which are intended only for the immediate use of the employee who performs the transfer. For purposes of this section, drugs which are dispensed by a pharmacy to a health care provider for direct administration to a patient are exempted from labeling.

(f)(8)

The employer shall not remove or deface existing labels on incoming containers of hazardous chemicals, unless the container is immediately marked with the required information.

(f)(9)

The employer shall ensure that labels or other forms of warning are legible, in English, and prominently displayed on the container, or readily available in the work area throughout each work shift. Employers having employees who speak other languages may add the information in their language to the material presented, as long as the information is presented in English as well.

(f)(10)

The chemical manufacturer, importer, distributor or employer need not affix new labels to comply with this section if existing labels already convey the required information.

..1910.1200(f)(11)

(f)(11)

Chemical manufacturers, importers, distributors, or employers who become newly aware of any significant information regarding the hazards of a chemical shall revise the labels for the chemical within three months of becoming aware of the new information. Labels on containers of hazardous chemicals shipped after that time shall contain the new information. If the chemical is not currently produced or imported, the chemical manufacturer, importers, distributor, or employer shall add the information to the label before the chemical is shipped or introduced into the workplace again.

(g)

"Material safety data sheets."

(g)(1)

Chemical manufacturers and importers shall obtain or develop a material safety data sheet for each

hazardous chemical they produce or import. Employers shall have a material safety data sheet in the workplace for each hazardous chemical which they use.

(g)(2)

Each material safety data sheet shall be in English (although the employer may maintain copies in other languages as well), and shall contain at least the following information:

(g)(2)(i)

The identity used on the label, and, except as provided for in paragraph (i) of this section on trade secrets:

(g)(2)(i)(A)

If the hazardous chemical is a single substance, its chemical and common name(s);

(g)(2)(i)(B)

If the hazardous chemical is a mixture which has been tested as a whole to determine its hazards, the chemical and common name(s) of the ingredients which contribute to these known hazards, and the common name(s) of the mixture itself; or,

(g)(2)(i)(C)

If the hazardous chemical is a mixture which has not been tested as a whole:

..1910.1200(g)(2)(i)(C)(1)

(g)(2)(i)(C)(1)

The chemical and common name(s) of all ingredients which have been determined to be health hazards, and which comprise 1% or greater of the composition, except that chemicals identified as carcinogens under paragraph (d) of this section shall be listed if the concentrations are 0.1% or greater; and,

(g)(2)(i)(C)(2)

The chemical and common name(s) of all ingredients which have been determined to be health hazards, and which comprise less than 1% (0.1% for carcinogens) of the mixture, if there is evidence that the ingredient(s) could be released from the mixture in concentrations which would exceed an established OSHA permissible exposure limit or ACGIH Threshold Limit Value, or could present a health risk to employees; and,

(g)(2)(i)(C)(3)

The chemical and common name(s) of all ingredients which have been determined to present a physical hazard when present in the mixture;

(g)(2)(ii)

Physical and chemical characteristics of the hazardous chemical (such as vapor pressure, flash point);

(g)(2)(iii)

The physical hazards of the hazardous chemical, including the potential for fire, explosion, and reactivity;

(g)(2)(iv)

The health hazards of the hazardous chemical, including signs and symptoms of exposure, and any medical conditions which are generally recognized as being aggravated by exposure to the chemical;

(g)(2)(v)

The primary route(s) of entry;

..1910.1200(g)(2)(vi)

(g)(2)(vi)

The OSHA permissible exposure limit, ACGIH Threshold Limit Value, and any other exposure limit used or recommended by the chemical manufacturer, importer, or employer preparing the material safety data sheet, where available;

(g)(2)(vii)

Whether the hazardous chemical is listed in the National Toxicology Program (NTP) Annual Report on Carcinogens (latest edition) or has been found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest editions), or by OSHA;

(g)(2)(viii)

Any generally applicable precautions for safe handling and use which are known to the chemical manufacturer, importer or employer preparing the material safety data sheet, including appropriate hygienic practices, protective measures during repair and maintenance of contaminated equipment, and procedures for clean-up of spills and leaks;

(g)(2)(ix)

Any generally applicable control measures which are known to the chemical manufacturer, importer or employer preparing the material safety data sheet, such as appropriate engineering controls, work practices, or personal protective equipment;

(g)(2)(x)

Emergency and first aid procedures;

(g)(2)(xi)

The date of preparation of the material safety data sheet or the last change to it; and,

..1910.1200(g)(2)(xii)

(g)(2)(xii)

The name, address and telephone number of the chemical manufacturer, importer, employer or other responsible party preparing or distributing the material safety data sheet, who can provide additional information on the hazardous chemical and appropriate emergency procedures, if necessary.

(g)(3)

If no relevant information is found for any given category on the material safety data sheet, the chemical manufacturer, importer or employer preparing the material safety data sheet shall mark it to indicate that no applicable information was found.

(g)(4)

Where complex mixtures have similar hazards and contents (i.e. the chemical ingredients are essentially the same, but the specific composition varies from mixture to mixture), the chemical manufacturer, importer or employer may prepare one material safety data sheet to apply to all of these similar mixtures.

(g)(5)

The chemical manufacturer, importer or employer preparing the material safety data sheet shall ensure that the information recorded accurately reflects the scientific evidence used in making the hazard determination. If the chemical manufacturer, importer or employer preparing the material safety data sheet becomes newly aware of any significant information regarding the hazards of a chemical, or ways to protect against the hazards, this new information shall be added to the material safety data sheet within

three months. If the chemical is not currently being produced or imported the chemical manufacturer or importer shall add the information to the material safety data sheet before the chemical is introduced into the workplace again.

..1910.1200(g)(6)

(g)(6)

(g)(6)(i)

Chemical manufacturers or importers shall ensure that distributors and employers are provided an appropriate material safety data sheet with their initial shipment, and with the first shipment after a material safety data sheet is updated;

(g)(6)(ii)

The chemical manufacturer or importer shall either provide material safety data sheets with the shipped containers or send them to the distributor or employer prior to or at the time of the shipment;

(g)(6)(iii)

If the material safety data sheet is not provided with a shipment that has been labeled as a hazardous chemical, the distributor or employer shall obtain one from the chemical manufacturer or importer as soon as possible; and,

(g)(6)(iv)

The chemical manufacturer or importer shall also provide distributors or employers with a material safety data sheet upon request.

(g)(7)

(g)(7)(i)

Distributors shall ensure that material safety data sheets, and updated information, are provided to other distributors and employers with their initial shipment and with the first shipment after a material safety data sheet is updated;

(g)(7)(ii)

The distributor shall either provide material safety data sheets with the shipped containers, or send them to the other distributor or employer prior to or at the time of the shipment;

..1910.1200(g)(7)(iii)

(g)(7)(iii)

Retail distributors selling hazardous chemicals to employers having a commercial account shall provide a material safety data sheet to such employers upon request, and shall post a sign or otherwise inform them that a material safety data sheet is available;

(g)(7)(iv)

Wholesale distributors selling hazardous chemicals to employers over-the-counter may also provide material safety data sheets upon the request of the employer at the time of the over-the-counter purchase, and shall post a sign or otherwise inform such employers that a material safety data sheet is available;

(g)(7)(v)

If an employer without a commercial account purchases a hazardous chemical from a retail distributor not required to have material safety data sheets on file (i.e., the retail distributor does not have commercial accounts and does not use the materials), the retail distributor shall provide the employer, upon request, with the name, address, and telephone number of the chemical manufacturer, importer, or distributor from which a material safety data sheet can be obtained;

(g)(7)(vi)

Wholesale distributors shall also provide material safety data sheets to employers or other distributors upon request; and,

(g)(7)(vii)

Chemical manufacturers, importers, and distributors need not provide material safety data sheets to retail distributors that have informed them that the retail distributor does not sell the product to commercial accounts or open the sealed container to use it in their own workplaces.

..1910.1200(g)(8)

(g)(8)

The employer shall maintain in the workplace copies of the required material safety data sheets for each hazardous chemical, and shall ensure that they are readily accessible during each work shift to employees when they are in their work area(s). (Electronic access, microfiche, and other alternatives to maintaining paper copies of the material safety data sheets are permitted as long as no barriers to immediate employee

access in each workplace are created by such options.)

(g)(9)

Where employees must travel between workplaces during a workshift, i.e., their work is carried out at more than one geographical location, the material safety data sheets may be kept at the primary workplace facility. In this situation, the employer shall ensure that employees can immediately obtain the required information in an emergency.

(g)(10)

Material safety data sheets may be kept in any form, including operating procedures, and may be designed to cover groups of hazardous chemicals in a work area where it may be more appropriate to address the hazards of a process rather than individual hazardous chemicals. However, the employer shall ensure that in all cases the required information is provided for each hazardous chemical, and is readily accessible during each work shift to employees when they are in in their work area(s).

(g)(11)

Material safety data sheets shall also be made readily available, upon request, to designated representatives and to the Assistant Secretary, in accordance with the requirements of 29 CFR 1910.1020(e). The Director shall also be given access to material safety data sheets in the same manner.

..1910.1200(h)

(h)

"Employee information and training."

(h)(1)

Employers shall provide employees with effective information and training on hazardous chemicals in their work area at the time of their initial assignment, and whenever a new physical or health hazard the employees have not previously been trained about is introduced into their work area. Information and training may be designed to cover categories of hazards (e.g., flammability, carcinogenicity) or specific chemicals. Chemical-specific information must always be available through labels and material safety data sheets.

(h)(2)

"Information." Employees shall be informed of:

(h)(2)(i)

The requirements of this section;

(h)(2)(ii)

Any operations in their work area where hazardous chemicals are present; and,

(h)(2)(iii)

The location and availability of the written hazard communication program, including the required list(s) of hazardous chemicals, and material safety data sheets required by this section.

(h)(3)

"Training." Employee training shall include at least:

(h)(3)(i)

Methods and observations that may be used to detect the presence or release of a hazardous chemical in the work area (such as monitoring conducted by the employer, continuous monitoring devices, visual appearance or odor of hazardous chemicals when being released, etc.);

(h)(3)(ii)

The physical and health hazards of the chemicals in the work area;

..1910.1200(h)(3)(iii)

(h)(3)(iii)

The measures employees can take to protect themselves from these hazards, including specific procedures the employer has implemented to protect employees from exposure to hazardous chemicals, such as appropriate work practices, emergency procedures, and personal protective equipment to be used; and,

(h)(3)(iv)

The details of the hazard communication program developed by the employer, including an explanation of the labeling system and the material safety data sheet, and how employees can obtain and use the appropriate hazard information.

(i)

"Trade secrets."

(i)(1)

The chemical manufacturer, importer, or employer may withhold the specific chemical identity, including the chemical name and other specific identification of a hazardous chemical, from the material safety data sheet, provided that:

(i)(1)(i)

The claim that the information withheld is a trade secret can be supported;

(i)(1)(ii)

Information contained in the material safety data sheet concerning the properties and effects of the hazardous chemical is disclosed;

(i)(1)(iii)

The material safety data sheet indicates that the specific chemical identity is being withheld as a trade secret; and,

(i)(1)(iv)

The specific chemical identity is made available to health professionals, employees, and designated representatives in accordance with the applicable provisions of this paragraph.

..1910.1200(i)(2)

(i)(2)

Where a treating physician or nurse determines that a medical emergency exists and the specific chemical identity of a hazardous chemical is necessary for emergency or first-aid treatment, the chemical manufacturer, importer, or employer shall immediately disclose the specific chemical identity of a trade secret chemical to that treating physician or nurse, regardless of the existence of a written statement of need or a confidentiality agreement. The chemical manufacturer, importer, or employer may require a written statement of need and confidentiality agreement, in accordance with the provisions of paragraphs (i)(3) and (4) of this section, as soon as circumstances permit.

(i)(3)

In non-emergency situations, a chemical manufacturer, importer, or employer shall, upon request, disclose a specific chemical identity, otherwise permitted to be withheld under paragraph (i)(1) of this section, to a health professional (i.e. physician, industrial hygienist, toxicologist, epidemiologist, or occupational health nurse) providing medical or other occupational health services to exposed employee(s), and to employees or designated representatives, if:

(i)(3)(i)

The request is in writing;

(i)(3)(ii)

The request describes with reasonable detail one or more of the following occupational health needs for the information:

(i)(3)(ii)(A)

To assess the hazards of the chemicals to which employees will be exposed;

(i)(3)(ii)(B)

To conduct or assess sampling of the workplace atmosphere to determine employee exposure levels;

(i)(3)(ii)(C)

To conduct pre-assignment or periodic medical surveillance of exposed employees;

(i)(3)(ii)(D)

To provide medical treatment to exposed employees;

..1910.1200(i)(3)(ii)(E)

(i)(3)(ii)(E)

To select or assess appropriate personal protective equipment for exposed employees;

(i)(3)(ii)(F)

To design or assess engineering controls or other protective measures for exposed employees; and,

(i)(3)(ii)(G)

To conduct studies to determine the health effects of exposure.

(i)(3)(iii)

The request explains in detail why the disclosure of the specific chemical identity is essential and that, in lieu thereof, the disclosure of the following information to the health professional, employee, or designated representative, would not satisfy the purposes described in paragraph (i)(3)(ii) of this section:

(i)(3)(iii)(A)

The properties and effects of the chemical;

(i)(3)(iii)(B)

Measures for controlling workers' exposure to the chemical;

(i)(3)(iii)(C)

Methods of monitoring and analyzing worker exposure to the chemical; and,

(i)(3)(iii)(D)

Methods of diagnosing and treating harmful exposures to the chemical;

(i)(3)(iv)

The request includes a description of the procedures to be used to maintain the confidentiality of the disclosed information; and,

..1910.1200(i)(3)(v)

(i)(3)(v)

The health professional, and the employer or contractor of the services of the health professional (i.e. downstream employer, labor organization, or individual employee), employee, or designated representative, agree in a written confidentiality agreement that the health professional, employee, or designated representative, will not use the trade secret information for any purpose other than the health need(s) asserted and agree not to release the information under any circumstances other than to OSHA, as provided in paragraph (i)(6) of this section, except as authorized by the terms of the agreement or by the

chemical manufacturer, importer, or employer.

(i)(4)

The confidentiality agreement authorized by paragraph (i)(3)(iv) of this section:

(i)(4)(i)

May restrict the use of the information to the health purposes indicated in the written statement of need;

(i)(4)(ii)

May provide for appropriate legal remedies in the event of a breach of the agreement, including stipulation of a reasonable pre-estimate of likely damages; and,

(i)(4)(iii)

May not include requirements for the posting of a penalty bond.

(i)(5)

Nothing in this standard is meant to preclude the parties from pursuing non-contractual remedies to the extent permitted by law.

(i)(6)

If the health professional, employee, or designated representative receiving the trade secret information decides that there is a need to disclose it to OSHA, the chemical manufacturer, importer, or employer who provided the information shall be informed by the health professional, employee, or designated representative prior to, or at the same time as, such disclosure.

..1910.1200(i)(7)

(i)(7)

If the chemical manufacturer, importer, or employer denies a written request for disclosure of a specific chemical identity, the denial must:

(i)(7)(i)

Be provided to the health professional, employee, or designated representative, within thirty days of the

request;

(i)(7)(ii)

Be in writing;

(i)(7)(iii)

Include evidence to support the claim that the specific chemical identity is a trade secret;

(i)(7)(iv)

State the specific reasons why the request is being denied; and,

(i)(7)(v)

Explain in detail how alternative information may satisfy the specific medical or occupational health need without revealing the specific chemical identity.

(i)(8)

The health professional, employee, or designated representative whose request for information is denied under paragraph (i)(3) of this section may refer the request and the written denial of the request to OSHA for consideration.

(i)(9)

When a health professional, employee, or designated representative refers the denial to OSHA under paragraph (i)(8) of this section, OSHA shall consider the evidence to determine if:

..1910.1200(i)(9)(i)

(i)(9)(i)

The chemical manufacturer, importer, or employer has supported the claim that the specific chemical identity is a trade secret;

(i)(9)(ii)

The health professional, employee, or designated representative has supported the claim that there is a medical or occupational health need for the information; and,

(i)(9)(iii)

The health professional, employee or designated representative has demonstrated adequate means to protect the confidentiality.

(i)(10)

(i)(10)(i)

If OSHA determines that the specific chemical identity requested under paragraph (i)(3) of this section is not a "bona fide" trade secret, or that it is a trade secret, but the requesting health professional, employee, or designated representative has a legitimate medical or occupational health need for the information, has executed a written confidentiality agreement, and has shown adequate means to protect the confidentiality of the information, the chemical manufacturer, importer, or employer will be subject to citation by OSHA.

..1910.1200(i)(10)(ii)

(i)(10)(ii)

If a chemical manufacturer, importer, or employer demonstrates to OSHA that the execution of a confidentiality agreement would not provide sufficient protection against the potential harm from the unauthorized disclosure of a trade secret specific chemical identity, the Assistant Secretary may issue such orders or impose such additional limitations or conditions upon the disclosure of the requested chemical information as may be appropriate to assure that the occupational health services are provided without an undue risk of harm to the chemical manufacturer, importer, or employer.

(i)(11)

If a citation for a failure to release specific chemical identity information is contested by the chemical manufacturer, importer, or employer, the matter will be adjudicated before the Occupational Safety and Health Review Commission in accordance with the Act's enforcement scheme and the applicable Commission rules of procedure. In accordance with the Commission rules, when a chemical manufacturer, importer, or employer continues to withhold the information during the contest, the Administrative Law Judge may review the citation and supporting documentation "in camera" or issue appropriate orders to protect the confidentiality of such matters.

(i)(12)

Notwithstanding the existence of a trade secret claim, a chemical manufacturer, importer, or employer shall, upon request, disclose to the Assistant Secretary any information which this section requires the chemical manufacturer, importer, or employer to make available. Where there is a trade secret claim,

such claim shall be made no later than at the time the information is provided to the Assistant Secretary so that suitable determinations of trade secret status can be made and the necessary protections can be implemented.

(i)(13)

Nothing in this paragraph shall be construed as requiring the disclosure under any circumstances of process or percentage of mixture information which is a trade secret.

..1910.1200(j)

(j)

"Effective dates." Chemical manufacturers, importers, distributors, and employers shall be in compliance with all provisions of this section by March 11, 1994.

Note: The effective date of the clarification that the exemption of wood and wood products from the Hazard Communication standard in paragraph (b)(6)(iv) only applies to wood and wood products including lumber which will not be processed, where the manufacturer or importer can establish that the only hazard they pose to employees is the potential for flammability or combustibility, and that the exemption does not apply to wood or wood products which have been treated with a hazardous chemical covered by this standard, and wood which may be subsequently sawed or cut generating dust has been stayed from March 11, 1994 to August 11, 1994.

[59 FR 17479, April 13, 1994; 59 FR 65947, Dec. 22, 1994; 61 FR 5507, Feb. 13, 1996]

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▪

OSHA Regulations (Standards - 29 CFR)
Hepatitis B Vaccine Declination (Mandatory) - 1910.1030 App A

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- **Standard Number:** 1910.1030 App A
- **Standard Title:** Hepatitis B Vaccine Declination (Mandatory)
- **SubPart Number:** Z
- **SubPart Title:** Toxic and Hazardous Substances

I understand that due to my occupational exposure to blood or other potentially infectious materials I may be at risk of acquiring hepatitis B virus (HBV) infection. I have been given the opportunity to be vaccinated with hepatitis B vaccine, at no charge to myself. However, I decline hepatitis B vaccination at this time. I understand that by declining this vaccine, I continue to be at risk of acquiring hepatitis B, a serious disease. If in the future I continue to have occupational exposure to blood or other potentially infectious materials and I want to be vaccinated with hepatitis B vaccine, I can receive the vaccination series at no charge to me.

[56 FR 64004, Dec. 06, 1991, as amended at 57 FR 12717, April 13, 1992; 57 FR 29206, July 1, 1992; 61 FR 5507, Feb. 13, 1996]

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OSHA Regulations (Standards - 29 CFR)
Bloodborne pathogens. - 1910.1030

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- **Standard Number:** 1910.1030
 - **Standard Title:** Bloodborne pathogens.
 - **SubPart Number:** Z
 - **SubPart Title:** Toxic and Hazardous Substances
-



(a)

Scope and Application. This section applies to all occupational exposure to blood or other potentially infectious materials as defined by paragraph (b) of this section.

(b)

Definitions. For purposes of this section, the following shall apply:

"Assistant Secretary" means the Assistant Secretary of Labor for Occupational Safety and Health, or designated representative.

"Blood" means human blood, human blood components, and products made from human blood.

"Bloodborne Pathogens" means pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus (HBV) and human immunodeficiency virus (HIV).

"Clinical Laboratory" means a workplace where diagnostic or other screening procedures are performed on blood or other potentially infectious materials.

"Contaminated" means the presence or the reasonably anticipated presence of blood or other potentially infectious materials on an item or surface.

"Contaminated Laundry" means laundry which has been soiled with blood or other potentially infectious materials or may contain sharps.

"Contaminated Sharps" means any contaminated object that can penetrate the skin including, but not limited to, needles, scalpels, broken glass, broken capillary tubes, and exposed ends of dental wires.

"Decontamination" means the use of physical or chemical means to remove, inactivate, or destroy bloodborne pathogens on a surface or item to the point where they are no longer capable of transmitting infectious particles and the surface or item is rendered safe for handling, use, or disposal.

"Director" means the Director of the National Institute for Occupational Safety and Health, U.S. Department of Health and Human Services, or designated representative.

"Engineering Controls" means controls (e.g., sharps disposal containers, self-sheathing needles) that isolate or remove the bloodborne pathogens hazard from the workplace.

"Exposure Incident" means a specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious materials that results from the performance of an employee's duties.

"Handwashing Facilities" means a facility providing an adequate supply of running potable water, soap and single use towels or hot air drying machines.

"Licensed Healthcare Professional" is a person whose legally permitted scope of practice allows him or her to independently perform the activities required by paragraph (f) Hepatitis B Vaccination and Post-exposure Evaluation and Follow-up.

"HBV" means hepatitis B virus.

"HIV" means human immunodeficiency virus.

"Occupational Exposure" means reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials that may result from the performance of an employee's duties.

"Other Potentially Infectious Materials" means (1) The following human body fluids: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids; (2) Any unfixed tissue or organ (other than intact skin) from a human (living or dead); and (3) HIV-containing cell or tissue cultures, organ cultures, and HIV- or HBV-containing culture medium or other solutions; and blood, organs, or other tissues from experimental animals infected with HIV or HBV.

"Parenteral" means piercing mucous membranes or the skin barrier through such events as needlesticks, human bites, cuts, and abrasions.

"Personal Protective Equipment" is specialized clothing or equipment worn by an employee for protection against a hazard. General work clothes (e.g., uniforms, pants, shirts or blouses) not intended to function as protection against a hazard are not considered to be personal protective equipment.

"Production Facility" means a facility engaged in industrial-scale, large-volume or high concentration production of HIV or HBV.

"Regulated Waste" means liquid or semi-liquid blood or other potentially infectious materials; contaminated items that would release blood or other potentially infectious materials in a liquid or semi-liquid state if compressed; items that are caked with dried blood or other potentially infectious materials and are capable of releasing these materials during handling; contaminated sharps; and pathological and microbiological wastes containing blood or other potentially infectious materials.

"Research Laboratory" means a laboratory producing or using research-laboratory-scale amounts of HIV or HBV. Research laboratories may produce high concentrations of HIV or HBV but not in the volume found in production facilities.

"Source Individual" means any individual, living or dead, whose blood or other potentially infectious materials may be a source of occupational exposure to the employee. Examples include, but are not limited to, hospital and clinic patients; clients in institutions for the developmentally disabled; trauma victims; clients of drug and alcohol treatment facilities; residents of hospices and nursing homes; human remains; and individuals who donate or sell blood or blood components.

"Sterilize" means the use of a physical or chemical procedure to destroy all microbial life including highly resistant bacterial endospores.

"Universal Precautions" is an approach to infection control. According to the concept of Universal Precautions, all human blood and certain human body fluids are treated as if known to be infectious for HIV, HBV, and other bloodborne pathogens.

"Work Practice Controls" means controls that reduce the likelihood of exposure by altering the manner in which a task is performed (e.g., prohibiting recapping of needles by a two-handed technique).

(c)

Exposure Control.

(c)(1)

Exposure Control Plan.

(c)(1)(i)

Each employer having an employee(s) with occupational exposure as defined by paragraph (b) of this section shall establish a written Exposure Control Plan designed to eliminate or minimize employee exposure.

(c)(1)(ii)

The Exposure Control Plan shall contain at least the following elements:

(c)(1)(ii)(A)

The exposure determination required by paragraph (c)(2),

..1910.1030(c)(1)(ii)(B)

(c)(1)(ii)(B)

The schedule and method of implementation for paragraphs (d) Methods of Compliance, (e) HIV and HBV Research Laboratories and Production Facilities, (f) Hepatitis B Vaccination and Post-Exposure Evaluation and Follow-up, (g) Communication of Hazards to Employees, and (h) Recordkeeping, of this standard, and

(c)(1)(ii)(C)

The procedure for the evaluation of circumstances surrounding exposure incidents as required by paragraph (f)(3)(i) of this standard.

(c)(1)(iii)

Each employer shall ensure that a copy of the Exposure Control Plan is accessible to employees in accordance with 29 CFR 1910.1020(e).

(c)(1)(iv)

The Exposure Control Plan shall be reviewed and updated at least annually and whenever necessary to reflect new or modified tasks and procedures which affect occupational exposure and to reflect new or revised employee positions with occupational exposure.

(c)(1)(v)

The Exposure Control Plan shall be made available to the Assistant Secretary and the Director upon request for examination and copying.

(c)(2)

Exposure Determination.

(c)(2)(i)

Each employer who has an employee(s) with occupational exposure as defined by paragraph (b) of this section shall prepare an exposure determination. This exposure determination shall contain the following:

(c)(2)(i)(A)

A list of all job classifications in which all employees in those job classifications have occupational exposure;

..1910.1030(c)(2)(i)(B)

(c)(2)(i)(B)

A list of job classifications in which some employees have occupational exposure, and

(c)(2)(i)(C)

A list of all tasks and procedures or groups of closely related task and procedures in which occupational exposure occurs and that are performed by employees in job classifications listed in accordance with the provisions of paragraph (c)(2)(i)(B) of this standard.

(c)(2)(ii)

This exposure determination shall be made without regard to the use of personal protective equipment.

(d)

Methods of Compliance.

(d)(1)

General. Universal precautions shall be observed to prevent contact with blood or other potentially infectious materials. Under circumstances in which differentiation between body fluid types is difficult or impossible, all body fluids shall be considered potentially infectious materials.

(d)(2)

Engineering and Work Practice Controls.

(d)(2)(i)

Engineering and work practice controls shall be used to eliminate or minimize employee exposure. Where occupational exposure remains after institution of these controls, personal protective equipment shall also be used.

..1910.1030(d)(2)(ii)

(d)(2)(ii)

Engineering controls shall be examined and maintained or replaced on a regular schedule to ensure their effectiveness.

(d)(2)(iii)

Employers shall provide handwashing facilities which are readily accessible to employees.

(d)(2)(iv)

When provision of handwashing facilities is not feasible, the employer shall provide either an appropriate antiseptic hand cleanser in conjunction with clean cloth/paper towels or antiseptic towelettes. When antiseptic hand cleansers or towelettes are used, hands shall be washed with soap and running water as soon as feasible.

(d)(2)(v)

Employers shall ensure that employees wash their hands immediately or as soon as feasible after removal of gloves or other personal protective equipment.

(d)(2)(vi)

Employers shall ensure that employees wash hands and any other skin with soap and water, or flush mucous membranes with water immediately or as soon as feasible following contact of such body areas with blood or other potentially infectious materials.

(d)(2)(vii)

Contaminated needles and other contaminated sharps shall not be bent, recapped, or removed except as noted in paragraphs (d)(2)(vii)(A) and (d)(2)(vii)(B) below. Shearing or breaking of contaminated needles is prohibited.

..1910.1030(d)(2)(vii)(A)

(d)(2)(vii)(A)

Contaminated needles and other contaminated sharps shall not be bent, recapped or removed unless the employer can demonstrate that no alternative is feasible or that such action is required by a specific medical or dental procedure.

(d)(2)(vii)(B)

Such bending, recapping or needle removal must be accomplished through the use of a mechanical device or a one-handed technique.

(d)(2)(viii)

Immediately or as soon as possible after use, contaminated reusable sharps shall be placed in appropriate containers until properly reprocessed. These containers shall be:

(d)(2)(viii)(A)

puncture resistant;

(d)(2)(viii)(B)

labeled or color-coded in accordance with this standard;

(d)(2)(viii)(C)

leakproof on the sides and bottom; and

(d)(2)(viii)(D)

in accordance with the requirements set forth in paragraph

(d)(4)(ii)(E) for reusable sharps.

(d)(2)(ix)

Eating, drinking, smoking, applying cosmetics or lip balm, and handling contact lenses are prohibited in work areas where there is a reasonable likelihood of occupational exposure.

(d)(2)(x)

Food and drink shall not be kept in refrigerators, freezers, shelves, cabinets or on countertops or benchtops where blood or other potentially infectious materials are present.

..1910.1030(d)(2)(xi)

(d)(2)(xi)

All procedures involving blood or other potentially infectious materials shall be performed in such a manner as to minimize splashing, spraying, spattering, and generation of droplets of these substances.

(d)(2)(xii)

Mouth pipetting/suctioning of blood or other potentially infectious materials is prohibited.

(d)(2)(xiii)

Specimens of blood or other potentially infectious materials shall be placed in a container which prevents leakage during collection, handling, processing, storage, transport, or shipping.

(d)(2)(xiii)(A)

The container for storage, transport, or shipping shall be labeled or color-coded according to paragraph (g)(1)(i) and closed prior to being stored, transported, or shipped. When a facility utilizes Universal Precautions in the handling of all specimens, the labeling/color-coding of specimens is not necessary provided containers are recognizable as containing specimens. This exemption only applies while such specimens/containers remain within the facility. Labeling or color-coding in accordance with paragraph (g)(1)(i) is required when such specimens/containers leave the facility.

(d)(2)(xiii)(B)

If outside contamination of the primary container occurs, the primary container shall be placed within a second container which prevents leakage during handling, processing, storage, transport, or shipping and is labeled or color-coded according to the requirements of this standard.

..1910.1030(d)(2)(xiii)(C)

(d)(2)(xiii)(C)

If the specimen could puncture the primary container, the primary container shall be placed within a secondary container which is puncture-resistant in addition to the above characteristics.

(d)(2)(xiv)

Equipment which may become contaminated with blood or other potentially infectious materials shall be examined prior to servicing or shipping and shall be decontaminated as necessary, unless the employer can demonstrate that decontamination of such equipment or portions of such equipment is not feasible.

(d)(2)(xiv)(A)

A readily observable label in accordance with paragraph (g)(1)(i)(H) shall be attached to the equipment stating which portions remain contaminated.

(d)(2)(xiv)(B)

The employer shall ensure that this information is conveyed to all affected employees, the servicing representative, and/or the manufacturer, as appropriate, prior to handling, servicing, or shipping so that appropriate precautions will be taken.

..1910.1030(d)(3)

(d)(3)

Personal Protective Equipment.

(d)(3)(i)

Provision. When there is occupational exposure, the employer shall provide, at no cost to the employee, appropriate personal protective equipment such as, but not limited to, gloves, gowns, laboratory coats, face shields or masks and eye protection, and mouthpieces, resuscitation bags, pocket masks, or other ventilation devices. Personal protective equipment will be considered "appropriate" only if it does not permit blood or other potentially infectious materials to pass through to or reach the employee's work clothes, street clothes, undergarments, skin, eyes, mouth, or other mucous membranes under normal conditions of use and for the duration of time which the protective equipment will be used.

(d)(3)(ii)

Use. The employer shall ensure that the employee uses appropriate personal protective equipment unless the employer shows that the employee temporarily and briefly declined to use personal protective equipment when, under rare and extraordinary circumstances, it was the employee's professional judgment that in the specific instance its use would have prevented the delivery of health care or public safety services or would have posed an increased hazard to the safety of the worker or co-worker. When the employee makes this judgement, the circumstances shall be investigated and documented in order to determine whether changes can be instituted to prevent such occurrences in the future.

(d)(3)(iii)

Accessibility. The employer shall ensure that appropriate personal protective equipment in the appropriate sizes is readily accessible at the worksite or is issued to employees. Hypoallergenic gloves, glove liners, powderless gloves, or other similar alternatives shall be readily accessible to those employees who are allergic to the gloves normally provided.

(d)(3)(iv)

Cleaning, Laundering, and Disposal. The employer shall clean, launder, and dispose of personal protective equipment required by paragraphs (d) and (e) of this standard, at no cost to the employee.

..1910.1030(d)(3)(v)

(d)(3)(v)

Repair and Replacement. The employer shall repair or replace personal protective equipment as needed to maintain its effectiveness, at no cost to the employee.

(d)(3)(vi)

If a garment(s) is penetrated by blood or other potentially infectious materials, the garment(s) shall be removed immediately or as soon as feasible.

(d)(3)(vii)

All personal protective equipment shall be removed prior to leaving the work area.

(d)(3)(viii)

When personal protective equipment is removed it shall be placed in an appropriately designated area or container for storage, washing, decontamination or disposal.

(d)(3)(ix)

Gloves. Gloves shall be worn when it can be reasonably anticipated that the employee may have hand contact with blood, other potentially infectious materials, mucous membranes, and non-intact skin; when performing vascular access procedures except as specified in paragraph (d)(3)(ix)(D); and when handling or touching contaminated items or surfaces.

(d)(3)(ix)(A)

Disposable (single use) gloves such as surgical or examination gloves, shall be replaced as soon as practical when contaminated or as soon as feasible if they are torn, punctured, or when their ability to function as a barrier is compromised.

..1910.1030(d)(3)(ix)(B)

(d)(3)(ix)(B)

Disposable (single use) gloves shall not be washed or decontaminated for re-use.

(d)(3)(ix)(C)

Utility gloves may be decontaminated for re-use if the integrity of the glove is not compromised. However, they must be discarded if they are cracked, peeling, torn, punctured, or exhibit other signs of deterioration or when their ability to function as a barrier is compromised.

(d)(3)(ix)(D)

If an employer in a volunteer blood donation center judges that routine gloving for all phlebotomies is not necessary then the employer shall:

(d)(3)(ix)(D)(1)

Periodically reevaluate this policy;

(d)(3)(ix)(D)(2)

Make gloves available to all employees who wish to use them for phlebotomy;

(d)(3)(ix)(D)(3)

Not discourage the use of gloves for phlebotomy; and

(d)(3)(ix)(D)(4)

Require that gloves be used for phlebotomy in the following circumstances:

- [i] When the employee has cuts, scratches, or other breaks in his or her skin;
- [ii] When the employee judges that hand contamination with blood may occur, for example, when performing phlebotomy on an uncooperative source individual; and
- [iii] When the employee is receiving training in phlebotomy.

..1910.1030(d)(3)(x)

(d)(3)(x)

Masks, Eye Protection, and Face Shields. Masks in combination with eye protection devices, such as goggles or glasses with solid side shields, or chin-length face shields, shall be worn whenever splashes, spray, spatter, or droplets of blood or other potentially infectious materials may be generated and eye, nose, or mouth contamination can be reasonably anticipated.

(d)(3)(xi)

Gowns, Aprons, and Other Protective Body Clothing. Appropriate protective clothing such as, but not limited to, gowns, aprons, lab coats, clinic jackets, or similar outer garments shall be worn in occupational exposure situations. The type and characteristics will depend upon the task and degree of exposure anticipated.

(d)(3)(xii)

Surgical caps or hoods and/or shoe covers or boots shall be worn in instances when gross contamination can reasonably be anticipated (e.g., autopsies, orthopaedic surgery).

(d)(4)

Housekeeping.

(d)(4)(i)

General. Employers shall ensure that the worksite is maintained in a clean and sanitary condition. The employer shall determine and implement an appropriate written schedule for cleaning and method of decontamination based upon the location within the facility, type of surface to be cleaned, type of soil present, and tasks or procedures being performed in the area.

(d)(4)(ii)

All equipment and environmental and working surfaces shall be cleaned and decontaminated after contact with blood or other potentially infectious materials.

..1910.1030(d)(4)(ii)(A)

(d)(4)(ii)(A)

Contaminated work surfaces shall be decontaminated with an appropriate disinfectant after completion of procedures; immediately or as soon as feasible when surfaces are overtly contaminated or after any spill of blood or other potentially infectious materials; and at the end of the work shift if the surface may have become contaminated since the last cleaning.

(d)(4)(ii)(B)

Protective coverings, such as plastic wrap, aluminum foil, or imperviously-backed absorbent paper used to cover equipment and environmental surfaces, shall be removed and replaced as soon as feasible when they become overtly contaminated or at the end of the workshift if they may have become contaminated during the shift.

(d)(4)(ii)(C)

All bins, pails, cans, and similar receptacles intended for reuse which have a reasonable likelihood for becoming contaminated with blood or other potentially infectious materials shall be inspected and decontaminated on a regularly scheduled basis and cleaned and decontaminated immediately or as soon as feasible upon visible contamination.

(d)(4)(ii)(D)

Broken glassware which may be contaminated shall not be picked up directly with the hands. It shall be cleaned up using mechanical means, such as a brush and dust pan, tongs, or forceps.

(d)(4)(ii)(E)

Reusable sharps that are contaminated with blood or other potentially infectious materials shall not be stored or processed in a manner that requires employees to reach by hand into the containers where these sharps have been placed.

(d)(4)(iii)

Regulated Waste.

..1910.1030(d)(4)(iii)(A)

(d)(4)(iii)(A)

Contaminated Sharps Discarding and Containment.

(d)(4)(iii)(A)(1)

Contaminated sharps shall be discarded immediately or as soon as feasible in containers that are:

[a] Closable;

[b] Puncture resistant;

[c] Leakproof on sides and bottom; and

[d] Labeled or color-coded in accordance with paragraph (g)(1)(i) of this standard.

(d)(4)(iii)(A)(2)

During use, containers for contaminated sharps shall be:

[a] Easily accessible to personnel and located as close as is feasible to the immediate area where sharps are used or can be reasonably anticipated to be found (e.g., laundries);

[b] Maintained upright throughout use; and

[c] Replaced routinely and not be allowed to overfill.

(d)(4)(iii)(A)(3)

When moving containers of contaminated sharps from the area of use, the containers shall be:

[a] Closed immediately prior to removal or replacement to prevent spillage or protrusion of contents during handling, storage, transport, or shipping;

[b] Placed in a secondary container if leakage is possible. The second container shall be:

[i] Closable;

[ii] Constructed to contain all contents and prevent leakage during handling, storage, transport, or shipping; and

[iii] Labeled or color-coded according to paragraph (g)(1)(i) of this standard.

(d)(4)(iii)(A)(4)

Reusable containers shall not be opened, emptied, or cleaned manually or in any other manner which would expose employees to the risk of percutaneous injury.

(d)(4)(iii)(B)

Other Regulated Waste Containment.

(d)(4)(iii)(B)(1)

Regulated waste shall be placed in containers which are:

[a] Closable;

[b] Constructed to contain all contents and prevent leakage of fluids during handling, storage, transport or shipping;

[c] Labeled or color-coded in accordance with paragraph (g)(1)(i) this standard; and

[d] Closed prior to removal to prevent spillage or protrusion of contents during handling, storage, transport, or shipping.

(d)(4)(iii)(B)(2)

If outside contamination of the regulated waste container occurs, it shall be placed in a second container. The second container shall be:

[a] Closable;

[b] Constructed to contain all contents and prevent leakage of fluids during handling, storage, transport or shipping;

[c] Labeled or color-coded in accordance with paragraph (g)(1)(i) of this standard; and

[d] Closed prior to removal to prevent spillage or protrusion of contents during handling, storage,

transport, or shipping.

(d)(4)(iii)(C)

Disposal of all regulated waste shall be in accordance with applicable regulations of the United States, States and Territories, and political subdivisions of States and Territories.

..1910.1030(d)(4)(iv)

(d)(4)(iv)

Laundry.

(d)(4)(iv)(A)

Contaminated laundry shall be handled as little as possible with a minimum of agitation.

(d)(4)(iv)(A)(1)

Contaminated laundry shall be bagged or containerized at the location where it was used and shall not be sorted or rinsed in the location of use.

(d)(4)(iv)(A)(2)

Contaminated laundry shall be placed and transported in bags or containers labeled or color-coded in accordance with paragraph (g)(1)(i) of this standard. When a facility utilizes Universal Precautions in the handling of all soiled laundry, alternative labeling or color-coding is sufficient if it permits all employees to recognize the containers as requiring compliance with Universal Precautions.

(d)(4)(iv)(A)(3)

Whenever contaminated laundry is wet and presents a reasonable likelihood of soak-through or leakage from the bag or container, the laundry shall be placed and transported in bags or containers which prevent soak-through and/or leakage of fluids to the exterior.

(d)(4)(iv)(B)

The employer shall ensure that employees who have contact with contaminated laundry wear protective gloves and other appropriate personal protective equipment.

..1910.1030(d)(4)(iv)(C)

(d)(4)(iv)(C)

When a facility ships contaminated laundry off-site to a second facility which does not utilize Universal Precautions in the handling of all laundry, the facility generating the contaminated laundry must place such laundry in bags or containers which are labeled or color-coded in accordance with paragraph (g)(1)(i).

(e)

HIV and HBV Research Laboratories and Production Facilities.

(e)(1)

This paragraph applies to research laboratories and production facilities engaged in the culture, production, concentration, experimentation, and manipulation of HIV and HBV. It does not apply to clinical or diagnostic laboratories engaged solely in the analysis of blood, tissues, or organs. These requirements apply in addition to the other requirements of the standard.

(e)(2)

Research laboratories and production facilities shall meet the following criteria:

(e)(2)(i)

Standard Microbiological Practices. All regulated waste shall either be incinerated or decontaminated by a method such as autoclaving known to effectively destroy bloodborne pathogens.

(e)(2)(ii)

Special Practices

(e)(2)(ii)(A)

Laboratory doors shall be kept closed when work involving HIV or HBV is in progress.

..1910.1030(e)(2)(ii)(B)

(e)(2)(ii)(B)

Contaminated materials that are to be decontaminated at a site away from the work area shall be placed in a durable, leakproof, labeled or color-coded container that is closed before being removed from the work

area.

(e)(2)(ii)(C)

Access to the work area shall be limited to authorized persons. Written policies and procedures shall be established whereby only persons who have been advised of the potential biohazard, who meet any specific entry requirements, and who comply with all entry and exit procedures shall be allowed to enter the work areas and animal rooms.

(e)(2)(ii)(D)

When other potentially infectious materials or infected animals are present in the work area or containment module, a hazard warning sign incorporating the universal biohazard symbol shall be posted on all access doors. The hazard warning sign shall comply with paragraph (g)(1)(ii) of this standard.

(e)(2)(ii)(E)

All activities involving other potentially infectious materials shall be conducted in biological safety cabinets or other physical-containment devices within the containment module. No work with these other potentially infectious materials shall be conducted on the open bench.

(e)(2)(ii)(F)

Laboratory coats, gowns, smocks, uniforms, or other appropriate protective clothing shall be used in the work area and animal rooms. Protective clothing shall not be worn outside of the work area and shall be decontaminated before being laundered.

..1910.1030(e)(2)(ii)(G)

(e)(2)(ii)(G)

Special care shall be taken to avoid skin contact with other potentially infectious materials. Gloves shall be worn when handling infected animals and when making hand contact with other potentially infectious materials is unavoidable.

(e)(2)(ii)(H)

Before disposal all waste from work areas and from animal rooms shall either be incinerated or decontaminated by a method such as autoclaving known to effectively destroy bloodborne pathogens.

(e)(2)(ii)(I)

Vacuum lines shall be protected with liquid disinfectant traps and high-efficiency particulate air (HEPA) filters or filters of equivalent or superior efficiency and which are checked routinely and maintained or replaced as necessary.

(e)(2)(ii)(J)

Hypodermic needles and syringes shall be used only for parenteral injection and aspiration of fluids from laboratory animals and diaphragm bottles. Only needle-locking syringes or disposable syringe-needle units (i.e., the needle is integral to the syringe) shall be used for the injection or aspiration of other potentially infectious materials. Extreme caution shall be used when handling needles and syringes. A needle shall not be bent, sheared, replaced in the sheath or guard, or removed from the syringe following use. The needle and syringe shall be promptly placed in a puncture-resistant container and autoclaved or decontaminated before reuse or disposal.

(e)(2)(ii)(K)

All spills shall be immediately contained and cleaned up by appropriate professional staff or others properly trained and equipped to work with potentially concentrated infectious materials.

..1910.1030(e)(2)(ii)(L)

(e)(2)(ii)(L)

A spill or accident that results in an exposure incident shall be immediately reported to the laboratory director or other responsible person.

(e)(2)(ii)(M)

A biosafety manual shall be prepared or adopted and periodically reviewed and updated at least annually or more often if necessary. Personnel shall be advised of potential hazards, shall be required to read instructions on practices and procedures, and shall be required to follow them.

(e)(2)(iii)

Containment Equipment.

(e)(2)(iii)(A)

Certified biological safety cabinets (Class I, II, or III) or other appropriate combinations of personal protection or physical containment devices, such as special protective clothing, respirators, centrifuge safety cups, sealed centrifuge rotors, and containment caging for animals, shall be used for all activities with other potentially infectious materials that pose a threat of exposure to droplets, splashes, spills, or

aerosols.

(e)(2)(iii)(B)

Biological safety cabinets shall be certified when installed, whenever they are moved and at least annually.

(e)(3)

HIV and HBV research laboratories shall meet the following criteria:

..1910.1030(e)(3)(i)

(e)(3)(i)

Each laboratory shall contain a facility for hand washing and an eye wash facility which is readily available within the work area.

(e)(3)(ii)

An autoclave for decontamination of regulated waste shall be available.

(e)(4)

HIV and HBV production facilities shall meet the following criteria:

(e)(4)(i)

The work areas shall be separated from areas that are open to unrestricted traffic flow within the building. Passage through two sets of doors shall be the basic requirement for entry into the work area from access corridors or other contiguous areas. Physical separation of the high-containment work area from access corridors or other areas or activities may also be provided by a double-doored clothes-change room (showers may be included), airlock, or other access facility that requires passing through two sets of doors before entering the work area.

(e)(4)(ii)

The surfaces of doors, walls, floors and ceilings in the work area shall be water resistant so that they can be easily cleaned. Penetrations in these surfaces shall be sealed or capable of being sealed to facilitate decontamination.

..1910.1030(e)(4)(iii)

(e)(4)(iii)

Each work area shall contain a sink for washing hands and a readily available eye wash facility. The sink shall be foot, elbow, or automatically operated and shall be located near the exit door of the work area.

(e)(4)(iv)

Access doors to the work area or containment module shall be self-closing.

(e)(4)(v)

An autoclave for decontamination of regulated waste shall be available within or as near as possible to the work area.

(e)(4)(vi)

A ducted exhaust-air ventilation system shall be provided. This system shall create directional airflow that draws air into the work area through the entry area. The exhaust air shall not be recirculated to any other area of the building, shall be discharged to the outside, and shall be dispersed away from occupied areas and air intakes. The proper direction of the airflow shall be verified (i.e., into the work area).

(e)(5)

Training Requirements. Additional training requirements for employees in HIV and HBV research laboratories and HIV and HBV production facilities are specified in paragraph (g)(2)(ix).

(f)

Hepatitis B Vaccination and Post-exposure Evaluation and Follow-up.

..1910.1030(f)(1)

(f)(1)

General.

(f)(1)(i)

The employer shall make available the hepatitis B vaccine and vaccination series to all employees who have occupational exposure, and post-exposure evaluation and follow-up to all employees who have had

an exposure incident.

(f)(1)(ii)

The employer shall ensure that all medical evaluations and procedures including the hepatitis B vaccine and vaccination series and post-exposure evaluation and follow-up, including prophylaxis, are:

(f)(1)(ii)(A)

Made available at no cost to the employee;

(f)(1)(ii)(B)

Made available to the employee at a reasonable time and place;

(f)(1)(ii)(C)

Performed by or under the supervision of a licensed physician or by or under the supervision of another licensed healthcare professional; and

(f)(1)(ii)(D)

Provided according to recommendations of the U.S. Public Health Service current at the time these evaluations and procedures take place, except as specified by this paragraph (f).

(f)(1)(iii)

The employer shall ensure that all laboratory tests are conducted by an accredited laboratory at no cost to the employee.

..1910.1030(f)(2)

(f)(2)

Hepatitis B Vaccination.

(f)(2)(i)

Hepatitis B vaccination shall be made available after the employee has received the training required in paragraph (g)(2)(vii)(I) and within 10 working days of initial assignment to all employees who have occupational exposure unless the employee has previously received the complete hepatitis B vaccination

series, antibody testing has revealed that the employee is immune, or the vaccine is contraindicated for medical reasons.

(f)(2)(ii)

The employer shall not make participation in a prescreening program a prerequisite for receiving hepatitis B vaccination.

(f)(2)(iii)

If the employee initially declines hepatitis B vaccination but at a later date while still covered under the standard decides to accept the vaccination, the employer shall make available hepatitis B vaccination at that time.

(f)(2)(iv)

The employer shall assure that employees who decline to accept hepatitis B vaccination offered by the employer sign the statement in Appendix A.

(f)(2)(v)

If a routine booster dose(s) of hepatitis B vaccine is recommended by the U.S. Public Health Service at a future date, such booster dose(s) shall be made available in accordance with section (f)(1)(ii).

(f)(3)

Post-exposure Evaluation and Follow-up. Following a report of an exposure incident, the employer shall make immediately available to the exposed employee a confidential medical evaluation and follow-up, including at least the following elements:

(f)(3)(i)

Documentation of the route(s) of exposure, and the circumstances under which the exposure incident occurred;

..1910.1030(f)(3)(ii)

(f)(3)(ii)

Identification and documentation of the source individual, unless the employer can establish that identification is infeasible or prohibited by state or local law;

(f)(3)(ii)(A)

The source individual's blood shall be tested as soon as feasible and after consent is obtained in order to determine HBV and HIV infectivity. If consent is not obtained, the employer shall establish that legally required consent cannot be obtained. When the source individual's consent is not required by law, the source individual's blood, if available, shall be tested and the results documented.

(f)(3)(ii)(B)

When the source individual is already known to be infected with HBV or HIV, testing for the source individual's known HBV or HIV status need not be repeated.

(f)(3)(ii)(C)

Results of the source individual's testing shall be made available to the exposed employee, and the employee shall be informed of applicable laws and regulations concerning disclosure of the identity and infectious status of the source individual.

(f)(3)(iii)

Collection and testing of blood for HBV and HIV serological status;

(f)(3)(iii)(A)

The exposed employee's blood shall be collected as soon as feasible and tested after consent is obtained.

..1910.1030(f)(3)(iii)(B)

(f)(3)(iii)(B)

If the employee consents to baseline blood collection, but does not give consent at that time for HIV serologic testing, the sample shall be preserved for at least 90 days. If, within 90 days of the exposure incident, the employee elects to have the baseline sample tested, such testing shall be done as soon as feasible.

(f)(3)(iv)

Post-exposure prophylaxis, when medically indicated, as recommended by the U.S. Public Health Service;

(f)(3)(v)

Counseling; and

(f)(3)(vi)

Evaluation of reported illnesses.

(f)(4)

Information Provided to the Healthcare Professional.

(f)(4)(i)

The employer shall ensure that the healthcare professional responsible for the employee's Hepatitis B vaccination is provided a copy of this regulation.

(f)(4)(ii)

The employer shall ensure that the healthcare professional evaluating an employee after an exposure incident is provided the following information:

(f)(4)(ii)(A)

A copy of this regulation;

(f)(4)(ii)(B)

A description of the exposed employee's duties as they relate to the exposure incident;

(f)(4)(ii)(C)

Documentation of the route(s) of exposure and circumstances under which exposure occurred;

..1910.1030(f)(4)(ii)(D)

(f)(4)(ii)(D)

Results of the source individual's blood testing, if available; and

(f)(4)(ii)(E)

All medical records relevant to the appropriate treatment of the employee including vaccination status

which are the employer's responsibility to maintain.

(f)(5)

Healthcare Professional's Written Opinion. The employer shall obtain and provide the employee with a copy of the evaluating healthcare professional's written opinion within 15 days of the completion of the evaluation.

(f)(5)(i)

The healthcare professional's written opinion for Hepatitis B vaccination shall be limited to whether Hepatitis B vaccination is indicated for an employee, and if the employee has received such vaccination.

(f)(5)(ii)

The healthcare professional's written opinion for post-exposure evaluation and follow-up shall be limited to the following information:

(f)(5)(ii)(A)

That the employee has been informed of the results of the evaluation; and

(f)(5)(ii)(B)

That the employee has been told about any medical conditions resulting from exposure to blood or other potentially infectious materials which require further evaluation or treatment.

..1910.1030(f)(5)(iii)

(f)(5)(iii)

All other findings or diagnoses shall remain confidential and shall not be included in the written report.

(f)(6)

Medical Recordkeeping. Medical records required by this standard shall be maintained in accordance with paragraph (h)(1) of this section.

(g)

Communication of Hazards to Employees.

(g)(1)

Labels and Signs.

(g)(1)(i)

Labels.

(g)(1)(i)(A)

Warning labels shall be affixed to containers of regulated waste, refrigerators and freezers containing blood or other potentially infectious material; and other containers used to store, transport or ship blood or other potentially infectious materials, except as provided in paragraph (g)(1)(i)(E), (F) and (G).

(g)(1)(i)(B)

Labels required by this section shall include the following legend:

BIOHAZARD

(For Illustration, of Biohazard symbol, [Click Here](#))

(g)(1)(i)(C)

These labels shall be fluorescent orange or orange-red or predominantly so, with lettering and symbols in a contrasting color.

(g)(1)(i)(D)

Labels shall be affixed as close as feasible to the container by string, wire, adhesive, or other method that prevents their loss or unintentional removal.

..1910.1030(g)(1)(i)(E)

(g)(1)(i)(E)

Red bags or red containers may be substituted for labels.

(g)(1)(i)(F)

Containers of blood, blood components, or blood products that are labeled as to their contents and have

been released for transfusion or other clinical use are exempted from the labeling requirements of paragraph (g).

(g)(1)(i)(G)

Individual containers of blood or other potentially infectious materials that are placed in a labeled container during storage, transport, shipment or disposal are exempted from the labeling requirement.

(g)(1)(i)(H)

Labels required for contaminated equipment shall be in accordance with this paragraph and shall also state which portions of the equipment remain contaminated.

(g)(1)(i)(I)

Regulated waste that has been decontaminated need not be labeled or color-coded.

(g)(1)(ii)

Signs.

(g)(1)(ii)(A)

The employer shall post signs at the entrance to work areas specified in paragraph (e), HIV and HBV Research Laboratory and Production Facilities, which shall bear the following legend:

BIOHAZARD

(For Illustration, of Biohazard symbol, [Click Here](#))

(Name of the Infectious Agent)

(Special requirements for entering the area)

(Name, telephone number of the laboratory director or other responsible person.)

..1910.1030(g)(1)(ii)(B)

(g)(1)(ii)(B)

These signs shall be fluorescent orange-red or predominantly so, with lettering and symbols in a contrasting color.

(g)(2)

Information and Training.

(g)(2)(i)

Employers shall ensure that all employees with occupational exposure participate in a training program which must be provided at no cost to the employee and during working hours.

(g)(2)(ii)

Training shall be provided as follows:

(g)(2)(ii)(A)

At the time of initial assignment to tasks where occupational exposure may take place;

(g)(2)(ii)(B)

Within 90 days after the effective date of the standard; and

(g)(2)(ii)(C)

At least annually thereafter.

(g)(2)(iii)

For employees who have received training on bloodborne pathogens in the year preceding the effective date of the standard, only training with respect to the provisions of the standard which were not included need be provided.

(g)(2)(iv)

Annual training for all employees shall be provided within one year of their previous training.

..1910.1030(g)(2)(v)

(g)(2)(v)

Employers shall provide additional training when changes such as modification of tasks or procedures or institution of new tasks or procedures affect the employee's occupational exposure. The additional

training may be limited to addressing the new exposures created.

(g)(2)(vi)

Material appropriate in content and vocabulary to educational level, literacy, and language of employees shall be used.

(g)(2)(vii)

The training program shall contain at a minimum the following elements:

(g)(2)(vii)(A)

An accessible copy of the regulatory text of this standard and an explanation of its contents;

(g)(2)(vii)(B)

A general explanation of the epidemiology and symptoms of bloodborne diseases;

(g)(2)(vii)(C)

An explanation of the modes of transmission of bloodborne pathogens;

(g)(2)(vii)(D)

An explanation of the employer's exposure control plan and the means by which the employee can obtain a copy of the written plan;

(g)(2)(vii)(E)

An explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure to blood and other potentially infectious materials;

..1910.1030(g)(2)(vii)(F)

(g)(2)(vii)(F)

An explanation of the use and limitations of methods that will prevent or reduce exposure including appropriate engineering controls, work practices, and personal protective equipment;

(g)(2)(vii)(G)

Information on the types, proper use, location, removal, handling, decontamination and disposal of personal protective equipment;

(g)(2)(vii)(H)

An explanation of the basis for selection of personal protective equipment;

(g)(2)(vii)(I)

Information on the hepatitis B vaccine, including information on its efficacy, safety, method of administration, the benefits of being vaccinated, and that the vaccine and vaccination will be offered free of charge;

(g)(2)(vii)(J)

Information on the appropriate actions to take and persons to contact in an emergency involving blood or other potentially infectious materials;

(g)(2)(vii)(K)

An explanation of the procedure to follow if an exposure incident occurs, including the method of reporting the incident and the medical follow-up that will be made available;

(g)(2)(vii)(L)

Information on the post-exposure evaluation and follow-up that the employer is required to provide for the employee following an exposure incident;

..1910.1030(g)(2)(vii)(M)

(g)(2)(vii)(M)

An explanation of the signs and labels and/or color coding required by paragraph (g)(1); and

(g)(2)(vii)(N)

An opportunity for interactive questions and answers with the person conducting the training session.

(g)(2)(viii)

The person conducting the training shall be knowledgeable in the subject matter covered by the elements

contained in the training program as it relates to the workplace that the training will address.

(g)(2)(ix)

Additional Initial Training for Employees in HIV and HBV Laboratories and Production Facilities.
Employees in HIV or HBV research laboratories and HIV or HBV production facilities shall receive the following initial training in addition to the above training requirements.

(g)(2)(ix)(A)

The employer shall assure that employees demonstrate proficiency in standard microbiological practices and techniques and in the practices and operations specific to the facility before being allowed to work with HIV or HBV.

(g)(2)(ix)(B)

The employer shall assure that employees have prior experience in the handling of human pathogens or tissue cultures before working with HIV or HBV.

..1910.1030(g)(2)(ix)(C)

(g)(2)(ix)(C)

The employer shall provide a training program to employees who have no prior experience in handling human pathogens. Initial work activities shall not include the handling of infectious agents. A progression of work activities shall be assigned as techniques are learned and proficiency is developed. The employer shall assure that employees participate in work activities involving infectious agents only after proficiency has been demonstrated.

(h)

Recordkeeping.

(h)(1)

Medical Records.

(h)(1)(i)

The employer shall establish and maintain an accurate record for each employee with occupational exposure, in accordance with 29 CFR 1910.1020.

(h)(1)(ii)

This record shall include:

(h)(1)(ii)(A)

The name and social security number of the employee;

(h)(1)(ii)(B)

A copy of the employee's hepatitis B vaccination status including the dates of all the hepatitis B vaccinations and any medical records relative to the employee's ability to receive vaccination as required by paragraph (f)(2);

(h)(1)(ii)(C)

A copy of all results of examinations, medical testing, and follow-up procedures as required by paragraph (f)(3);

(h)(1)(ii)(D)

The employer's copy of the healthcare professional's written opinion as required by paragraph (f)(5); and

..1910.1030(h)(1)(ii)(E)

(h)(1)(ii)(E)

A copy of the information provided to the healthcare professional as required by paragraphs (f)(4)(ii)(B)(C) and (D).

(h)(1)(iii)

Confidentiality. The employer shall ensure that employee medical records required by paragraph (h)(1) are:

(h)(1)(iii)(A)

Kept confidential; and

(h)(1)(iii)(B)

Not disclosed or reported without the employee's express written consent to any person within or outside the workplace except as required by this section or as may be required by law.

(h)(1)(iv)

The employer shall maintain the records required by paragraph (h) for at least the duration of employment plus 30 years in accordance with 29 CFR 1910.1020.

(h)(2)

Training Records.

(h)(2)(i)

Training records shall include the following information:

(h)(2)(i)(A)

The dates of the training sessions;

(h)(2)(i)(B)

The contents or a summary of the training sessions;

(h)(2)(i)(C)

The names and qualifications of persons conducting the training; and

..1910.1030(h)(2)(i)(D)

(h)(2)(i)(D)

The names and job titles of all persons attending the training sessions.

(h)(2)(ii)

Training records shall be maintained for 3 years from the date on which the training occurred.

(h)(3)

Availability.

(h)(3)(i)

The employer shall ensure that all records required to be maintained by this section shall be made available upon request to the Assistant Secretary and the Director for examination and copying.

(h)(3)(ii)

Employee training records required by this paragraph shall be provided upon request for examination and copying to employees, to employee representatives, to the Director, and to the Assistant Secretary.

(h)(3)(iii)

Employee medical records required by this paragraph shall be provided upon request for examination and copying to the subject employee, to anyone having written consent of the subject employee, to the Director, and to the Assistant Secretary in accordance with 29 CFR 1910.1020.

..1910.1030(h)(4)

(h)(4)

Transfer of Records.

(h)(4)(i)

The employer shall comply with the requirements involving transfer of records set forth in 29 CFR 1910.1020(h).

(h)(4)(ii)

If the employer ceases to do business and there is no successor employer to receive and retain the records for the prescribed period, the employer shall notify the Director, at least three months prior to their disposal and transmit them to the Director, if required by the Director to do so, within that three month period.

(i)

Dates.

(i)(1)

Effective Date. The standard shall become effective on March 6, 1992.

(i)(2)

The Exposure Control Plan required by paragraph (c) of this section shall be completed on or before May 5, 1992.

(i)(3)

Paragraph (g)(2) Information and Training and (h) Recordkeeping shall take effect on or before June 4, 1992.

(i)(4)

Paragraphs (d)(2) Engineering and Work Practice Controls, (d)(3) Personal Protective Equipment, (d)(4) Housekeeping, (e) HIV and HBV Research Laboratories and Production Facilities, (f) Hepatitis B Vaccination and Post-Exposure Evaluation and Follow-up, and (g)(1) Labels and Signs, shall take effect July 6, 1992.

[56 FR 64004, Dec. 06, 1991, as amended at 57 FR 12717, April 13, 1992; 57 FR 29206, July 1, 1992; 61 FR 5507, Feb. 13, 1996]

 [OSHA Regulations \(Standards - 29 CFR\) - Table of Contents](#)

OSHA Regulations (Standards - 29 CFR)
Employee alarm systems. - 1910.165

[☐ OSHA Regulations \(Standards - 29 CFR\) - Table of Contents](#)

- **Standard Number:** 1910.165
 - **Standard Title:** Employee alarm systems.
 - **SubPart Number:** L
 - **SubPart Title:** Fire Protection - Other Fire Protection Systems
-

(a)

Scope and application.

(a)(1)

This section applies to all emergency employee alarms installed to meet a particular OSHA standard. This section does not apply to those discharge or supervisory alarms required on various fixed extinguishing systems or to supervisory alarms on fire suppression, alarm or detection systems unless they are intended to be employee alarm systems.

(a)(2)

The requirements in this section that pertain to maintenance, testing and inspection shall apply to all local fire alarm signaling systems used for alerting employees regardless of the other functions of the system.

(a)(3)

All pre-discharge employee alarms installed to meet a particular OSHA standard shall meet the requirements of paragraphs (b)(1) through (4), (c), and (d)(1) of this section.

(b)

General requirements.

(b)(1)

The employee alarm system shall provide warning for necessary emergency action as called for in the emergency action plan, or for reaction time for safe escape of employees from the workplace or the immediate work area, or both.

..1910.165(b)(2)

(b)(2)

The employee alarm shall be capable of being perceived above ambient noise or light levels by all employees in the affected portions of the workplace. Tactile devices may be used to alert those employees who would not otherwise be able to recognize the audible or visual alarm.

(b)(3)

The employee alarm shall be distinctive and recognizable as a signal to evacuate the work area or to perform actions designated under the emergency action plan.

(b)(4)

The employer shall explain to each employee the preferred means of reporting emergencies, such as manual pull box alarms, public address systems, radio or telephones. The employer shall post emergency telephone numbers near telephones, or employee notice boards, and other conspicuous locations when telephones serve as a means of reporting emergencies. Where a communication system also serves as the employee alarm system, all emergency messages shall have priority over all non-emergency messages.

(b)(5)

The employer shall establish procedures for sounding emergency alarms in the workplace. For those employers with 10 or fewer employees in a particular workplace, direct voice communication is an acceptable procedure for sounding the alarm provided all employees can hear the alarm. Such workplaces need not have a back-up system.

..1910.165(c)

(c)

Installation and restoration.

(c)(1)

The employer shall assure that all devices, components, combinations of devices or systems constructed and installed to comply with this standard are approved. Steam whistles, air horns, strobe lights or similar lighting devices, or tactile devices meeting the requirements of this section are considered to meet this requirement for approval.

(c)(2)

The employer shall assure that all employee alarm systems are restored to normal operating condition as promptly as possible after each test or alarm. Spare alarm devices and components subject to wear or destruction shall be available in sufficient quantities and locations for prompt restoration of the system.

(d)

Maintenance and testing.

(d)(1)

The employer shall assure that all employee alarm systems are maintained in operating condition except when undergoing repairs or maintenance.

(d)(2)

The employer shall assure that a test of the reliability and adequacy of non-supervised employee alarm systems is made every two months. A different actuation device shall be used in each test of a multi-actuation device system so that no individual device is used for two consecutive tests.

(d)(3)

The employer shall maintain or replace power supplies as often as is necessary to assure a fully operational condition. Back-up means of alarm, such as employee runners or telephones, shall be provided when systems are out of service.

..1910.165(d)(4)

(d)(4)

The employer shall assure that employee alarm circuitry installed after January 1, 1981, which is capable of being supervised is supervised and that it will provide positive notification to assigned personnel whenever a deficiency exists in the system. The employer shall assure that all supervised employee alarm systems are tested at least annually for reliability and adequacy.

(d)(5)

The employer shall assure that the servicing, maintenance and testing of employee alarms are done by persons trained in the designed operation and functions necessary for reliable and safe operation of the system.

(e)

Manual operation. The employer shall assure that manually operated actuation devices for use in conjunction with employee alarms are unobstructed, conspicuous and readily accessible.

[45 FR 60713, Sept. 12, 1980]

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OSHA Regulations (Standards - 29 CFR)
Portable fire extinguishers. - 1910.157

[☐ OSHA Regulations \(Standards - 29 CFR\) - Table of Contents](#)

- **Standard Number:** 1910.157
 - **Standard Title:** Portable fire extinguishers.
 - **SubPart Number:** L
 - **SubPart Title:** Fire Protection - Portable Fire Suppression Equipment
-

(a)

Scope and application. The requirements of this section apply to the placement, use, maintenance, and testing of portable fire extinguishers provided for the use of employees. Paragraph (d) of this section does not apply to extinguishers provided for employee use on the outside of workplace buildings or structures. Where extinguishers are provided but are not intended for employee use and the employer has an emergency action plan and a fire prevention plan which meet the requirements of 1910.38, then only the requirements of paragraphs (e) and (f) of this section apply.

(b)

Exemptions.

(b)(1)

Where the employer has established and implemented a written fire safety policy which requires the immediate and total evacuation of employees from the workplace upon the sounding of a fire alarm signal and which includes an emergency action plan and a fire prevention plan which meet the requirements of 1910.38, and when extinguishers are not available in the workplace, the employer is exempt from all requirements of this section unless a specific standard in Part 1910 requires that a portable fire extinguisher be provided.

..1910.157(b)(2)

(b)(2)

Where the employer has an emergency action plan meeting the requirements of 1910.38 which designates certain employees to be the only employees authorized to use the available portable fire extinguishers, and which requires all other employees in the fire area to immediately evacuate the affected work area upon the sounding of the fire alarm, the employer is exempt from the distribution requirements in paragraph (d) of this section.

(c)

General requirements.

(c)(1)

The employer shall provide portable fire extinguishers and shall mount, locate and identify them so that they are readily accessible to employees without subjecting the employees to possible injury.

(c)(2)

Only approved portable fire extinguishers shall be used to meet the requirements of this section.

(c)(3)

The employer shall not provide or make available in the workplace portable fire extinguishers using carbon tetrachloride or chlorobromomethane extinguishing agents.

(c)(4)

The employer shall assure that portable fire extinguishers are maintained in a fully charged and operable condition and kept in their designated places at all times except during use.

(c)(5)

The employer shall remove from service all soldered or riveted shell self-generating soda acid or self-generating foam or gas cartridge water type portable fire extinguishers which are operated by inverting the extinguisher to rupture the cartridge or to initiate an uncontrollable pressure generating chemical reaction to expel the agent.

..1910.157(d)

(d)

Selection and distribution.

(d)(1)

Portable fire extinguishers shall be provided for employee use and selected and distributed based on the classes of anticipated workplace fires and on the size and degree of hazard which would affect their use.

(d)(2)

The employer shall distribute portable fire extinguishers for use by employees on Class A fires so that the travel distance for employees to any extinguisher is 75 feet (22.9 m) or less.

(d)(3)

The employer may use uniformly spaced standpipe systems or hose stations connected to a sprinkler system installed for emergency use by employees instead of Class A portable fire extinguishers, provided that such systems meet the respective requirements of 1910.158 or 1910.159, that they provide total coverage of the area to be protected, and that employees are trained at least annually in their use.

(d)(4)

The employer shall distribute portable fire extinguishers for use by employees on Class B fires so that the travel distance from the Class B hazard area to any extinguisher is 50 feet (15.2 m) or less.

(d)(5)

The employer shall distribute portable fire extinguishers used for Class C hazards on the basis of the appropriate pattern for the existing Class A or Class B hazards.

..1910.157(d)(6)

(d)(6)

The employer shall distribute portable fire extinguishers or other containers of Class D extinguishing agent for use by employees so that the travel distance from the combustible metal working area to any extinguishing agent is 75 feet (22.9 m) or less. Portable fire extinguishers for Class D hazards are required in those combustible metal working areas where combustible metal powders, flakes, shavings, or similarly sized products are generated at least once every two weeks.

(e)

Inspection, maintenance and testing.

(e)(1)

The employer shall be responsible for the inspection, maintenance and testing of all portable fire extinguishers in the workplace.

(e)(2)

Portable extinguishers or hose used in lieu thereof under paragraph (d)(3) of this section shall be visually inspected monthly.

(e)(3)

The employer shall assure that portable fire extinguishers are subjected to an annual maintenance check. Stored pressure extinguishers do not require an internal examination. The employer shall record the annual maintenance date and retain this record for one year after the last entry or the life of the shell, whichever is less. The record shall be available to the Assistant Secretary upon request.

(e)(4)

The employer shall assure that stored pressure dry chemical extinguishers that require a 12-year hydrostatic test are emptied and subjected to applicable maintenance procedures every 6 years. Dry chemical extinguishers having non-refillable disposable containers are exempt from this requirement. When recharging or hydrostatic testing is performed, the 6-year requirement begins from that date.

..1910.157(e)(5)

(e)(5)

The employer shall assure that alternate equivalent protection is provided when portable fire extinguishers are removed from service for maintenance and recharging.

(f)

Hydrostatic testing.

(f)(1)

The employer shall assure that hydrostatic testing is performed by trained persons with suitable testing equipment and facilities.

(f)(2)

The employer shall assure that portable extinguishers are hydrostatically tested at the intervals listed in Table L-1 of this section, except under any of the following conditions:

(f)(2)(i)

When the unit has been repaired by soldering, welding, brazing, or use of patching compounds;

(f)(2)(ii)

When the cylinder or shell threads are damaged;

(f)(2)(iii)

When there is corrosion that has caused pitting, including corrosion under removable name plate assemblies;

(f)(2)(iv)

When the extinguisher has been burned in a fire; or

(f)(2)(v)

When a calcium chloride extinguishing agent has been used in a stainless steel shell.

(f)(3)

In addition to an external visual examination, the employer shall assure that an internal examination of cylinders and shells to be tested is made prior to the hydrostatic tests.

TABLE L-1

Type of extinguishers	Test interval (years)
Soda acid (soldered brass shells) (until 1/1/82)	(1)
Soda acid (stainless steel shell)	5
Cartridge operated water and/or antifreeze	5
Stored pressure water and/or antifreeze	5

Wetting agent	5
Foam (soldered brass shells) (until 1/1/82)	(1)
Foam (stainless steel shell)	5
Aqueous Film Forming foam (AFFF)	5
Loaded stream	5
Dry chemical with stainless steel	5
Carbon Dioxide	5
Dry chemical, stored pressure, with mild steel, brazed	
brass or aluminum shells	12
Dry chemical, cartridge or cylinder operated, with	
mild steel shells	12
Halon 1211	12
Halon 1301	12
Dry powder, cartridge or cylinder operated with mild	
steel shells	12

Footnote(1) Extinguishers having shells constructed of copper or brass joined by soft solder or rivets shall not be hydrostatically tested and shall be removed from service by January 1, 1982. (Not permitted)

..1910.157(f)(4)

(f)(4)

The employer shall assure that portable fire extinguishers are hydrostatically tested whenever they show new evidence of corrosion or mechanical injury, except under the conditions listed in paragraphs (f)(2)(i)-(v) of this section.

(f)(5)

The employer shall assure that hydrostatic tests are performed on extinguisher hose assemblies which are equipped with a shut-off nozzle at the discharge end of the hose. The test interval shall be the same as specified for the extinguisher on which the hose is installed.

(f)(6)

The employer shall assure that carbon dioxide hose assemblies with a shut-off nozzle are hydrostatically tested at 1,250 psi (8,620 kPa).

(f)(7)

The employer shall assure that dry chemical and dry powder hose assemblies with a shut-off nozzle are hydrostatically tested at 300 psi (2,070 kPa).

(f)(8)

Hose assemblies passing a hydrostatic test do not require any type of recording or stamping.

(f)(9)

The employer shall assure that hose assemblies for carbon dioxide extinguishers that require a hydrostatic test are tested within a protective cage device.

..1910.157(f)(10)

(f)(10)

The employer shall assure that carbon dioxide extinguishers and nitrogen or carbon dioxide cylinders used with wheeled extinguishers are tested every 5 years at 5/3 of the service pressure as stamped into the cylinder. Nitrogen cylinders which comply with 49 CFR 173.34(e)(15) may be hydrostatically tested every 10 years.

(f)(11)

The employer shall assure that all stored pressure and Halon 1211 types of extinguishers are hydrostatically tested at the factory test pressure not to exceed two times the service pressure.

(f)(12)

The employer shall assure that acceptable self-generating type soda acid and foam extinguishers are tested at 350 psi (2,410 kPa).

(f)(13)

Air or gas pressure may not be used for hydrostatic testing.

(f)(14)

Extinguisher shells, cylinders, or cartridges which fail a hydrostatic pressure test, or which are not fit for

testing shall be removed from service and from the workplace.

(f)(15)

(f)(15)(i)

The equipment for testing compressed gas type cylinders shall be of the water jacket type. The equipment shall be provided with an expansion indicator which operates with an accuracy within one percent of the total expansion or .1cc (.1mL) of liquid.

(f)(15)(ii)

The equipment for testing non-compressed gas type cylinders shall consist of the following:

..1910.157(f)(15)(ii)(A)

(f)(15)(ii)(A)

A hydrostatic test pump, hand or power operated, capable of producing not less than 150 percent of the test pressure, which shall include appropriate check valves and fittings;

(f)(15)(ii)(B)

A flexible connection for attachment to fittings to test through the extinguisher nozzle, test bonnet, or hose outlet, as is applicable; and

(f)(15)(ii)(C)

A protective cage or barrier for personal protection of the tester, designed to provide visual observation of the extinguisher under test.

(f)(16)

The employer shall maintain and provide upon request to the Assistant Secretary evidence that the required hydrostatic testing of fire extinguishers has been performed at the time intervals shown in Table L-1. Such evidence shall be in the form of a certification record which includes the date of the test, the signature of the person who performed the test and the serial number, or other identifier, of the fire extinguisher that was tested. Such records shall be kept until the extinguisher is hydrostatically retested at the time interval specified in Table L-1 or until the extinguisher is taken out of service, whichever comes first.

..1910.157(g)

(g)

Training and education.

(g)(1)

Where the employer has provided portable fire extinguishers for employee use in the workplace, the employer shall also provide an educational program to familiarize employees with the general principles of fire extinguisher use and the hazards involved with incipient stage fire fighting.

(g)(2)

The employer shall provide the education required in paragraph (g)(1) of this section upon initial employment and at least annually thereafter.

(g)(3)

The employer shall provide employees who have been designated to use fire fighting equipment as part of an emergency action plan with training in the use of the appropriate equipment.

(g)(4)

The employer shall provide the training required in paragraph (g)(3) of this section upon initial assignment to the designated group of employees and at least annually thereafter.

[45 FR 60708, Sept. 12, 1980; 46 FR 24557, May 1, 1981, as amended at 51 FR 34560, Sept. 29, 1986; 61 FR 9227, March 7, 1996]

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OSHA Regulations (Standards - 29 CFR)

Training Curriculum Guidelines - (Non-mandatory) - 1910.120 App E

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- **Standard Number:** 1910.120 App E
 - **Standard Title:** Training Curriculum Guidelines - (Non-mandatory)
 - **SubPart Number:** H
 - **SubPart Title:** Hazardous Materials
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The following non-mandatory general criteria may be used for assistance in developing site-specific training curriculum used to meet the training requirements of 29 CFR 1910.120(e); 29 CFR 1910.120(p)(7), (p)(8)(iii); and 29 CFR 1910.120(q)(6), (q)(7), and (q)(8). These are generic guidelines and they are not presented as a complete training curriculum for any specific employer. Site- specific training programs must be developed on the basis of a needs assessment of the hazardous waste site, RCRA/TSD, or emergency response operation in accordance with 29 CFR 1910.120.

It is noted that the legal requirements are set forth in the regulatory text of Sec. 1910.120. The guidance set forth here presents a highly effective program that in the areas covered would meet or exceed the regulatory requirements. In addition, other approaches could meet the regulatory requirements.

Suggested General Criteria

Definitions:

"Competent" means possessing the skills, knowledge, experience, and judgment to perform assigned tasks or activities satisfactorily as determined by the employer.

"Demonstration" means the showing by actual use of equipment or procedures.

"Hands-on training" means training in a simulated work environment that permits each student to have experience performing tasks, making decisions, or using equipment appropriate to the job assignment for which the training is being conducted.

"Initial training" means training required prior to beginning work.

"Lecture" means an interactive discourse with a class lead by an instructor.

"Proficient" means meeting a stated level of achievement.

"Site-specific" means individual training directed to the operations of a specific job site.

"Training hours" means the number of hours devoted to lecture, learning activities, small group work sessions, demonstration, evaluations, or hands-on experience.

Suggested core criteria:

1. Training facility. The training facility should have available sufficient resources, equipment, and site locations to perform didactic and hands-on training when appropriate. Training facilities should have sufficient organization, support staff, and services to conduct training in each of the courses offered.
2. Training Director. Each training program should be under the direction of a training director who is responsible for the program. The Training Director should have a minimum of two years of employee education experience.
3. Instructors. Instructors should be deemed competent on the basis of previous documented experience in their area of instruction, successful completion of a "train-the-trainer" program specific to the topics they will teach, and an evaluation of instructional competence by the Training Director.

Instructors should be required to maintain professional competency by participating in continuing education or professional development programs or by completing successfully an annual refresher course and having an annual review by the Training Director.

The annual review by the Training Director should include observation of an instructor's delivery, a review of those observations with the trainer, and an analysis of any instructor or class evaluations completed by the students during the previous year.

4. Course materials. The Training Director should approve all course materials to be used by the training provider. Course materials should be reviewed and updated at least annually. Materials and equipment should be in good working order and maintained properly.

All written and audio-visual materials in training curricula should be peer reviewed by technically competent outside reviewers or by a standing advisory committee.

Reviews should possess expertise in the following disciplines where applicable: occupational health, industrial hygiene and safety, chemical/environmental engineering, employee education, or emergency response. One or more of the peer reviewers should be an employee experienced in the work activities to which the training is directed.

5. Students. The program for accepting students should include:

- a. Assurance that the student is or will be involved in work where chemical exposures are likely and that the student possesses the skills necessary to perform the work.
- b. A policy on the necessary medical clearance.

6. Ratios. Student-instructor ratios should not exceed 30 students per instructor. Hands-on activity requiring the use of personal protective equipment should have the following student- instructor ratios. For Level C or Level D personal protective equipment the ratio should be 10 students per instructor. For Level A or Level B personal protective equipment the ratio should be 5 students per instructor.

7. Proficiency assessment. Proficiency should be evaluated and documented by the use of a written assessment and a skill demonstration selected and developed by the Training Director and training staff. The assessment and demonstration should evaluate the knowledge and individual skills developed in the course of training. The level of minimum achievement necessary for proficiency shall be specified in writing by the Training Director.

If a written test is used, there should be a minimum of 50 questions. If a written test is used in combination with a skills demonstration, a minimum of 25 questions should be used. If a skills demonstration is used, the tasks chosen and the means to rate successful completion should be fully documented by the Training Director.

The content of the written test or of the skill demonstration shall be relevant to the objectives of the course. The written test and skill demonstration should be updated as necessary to reflect changes in the curriculum and any update should be approved by the Training Director.

The proficiency assessment methods, regardless of the approach or combination of approaches used, should be justified, documented and approved by the Training Director.

The proficiency of those taking the additional courses for supervisors should be evaluated and documented by using proficiency assessment methods acceptable to the Training Director. These proficiency assessment methods must reflect the additional responsibilities borne by supervisory personnel in hazardous waste operations or emergency response.

8. Course certificate. Written documentation should be provided to each student who satisfactorily completes the training course.

The documentation should include:

- a. Student's name.

- b. Course title.
- c. Course date.
- d. Statement that the student has successfully completed the course.
- e. Name and address of the training provider.
- f. An individual identification number for the certificate.
- g. List of the levels of personal protective equipment used by the student to complete the course.

This documentation may include a certificate and an appropriate wallet-sized laminated card with a photograph of the student and the above information. When such course certificate cards are used, the individual identification number for the training certificate should be shown on the card.

9. Recordkeeping. Training providers should maintain records listing the dates courses were presented, the names of the individual course attenders, the names of those students successfully completing each course, and the number of training certificates issued to each successful student. These records should be maintained for a minimum of five years after the date an individual participated in a training program offered by the training provider. These records should be available and provided upon the student's request or as mandated by law.

10. Program quality control. The Training Director should conduct or direct an annual written audit of the training program. Program modifications to address deficiencies, if any, should be documented, approved, and implemented by the training provider. The audit and the program modification documents should be maintained at the training facility.

Suggested Program Quality Control Criteria

Factors listed here are suggested criteria for determining the quality and appropriateness of employee health and safety training for hazardous waste operations and emergency response.

A. Training Plan.

Adequacy and appropriateness of the training program's curriculum development, instructor training, distribution of course materials, and direct student training should be considered, including:

1. The duration of training, course content, and course schedules/agendas;

2. The different training requirements of the various target populations, as specified in the appropriate generic training curriculum;
 3. The process for the development of curriculum, which includes appropriate technical input, outside review, evaluation, program pretesting.
 4. The adequate and appropriate inclusion of hands-on, demonstration, and instruction methods;
 5. Adequate monitoring of student safety, progress, and performance during the training.
- B. Program management, Training Director, staff, and consultants.

Adequacy and appropriateness of staff performance and delivering an effective training program should be considered, including:

1. Demonstration of the training director's leadership in assuring quality of health and safety training.
2. Demonstration of the competency of the staff to meet the demands of delivering high quality hazardous waste employee health and safety training.
3. Organization charts establishing clear lines of authority.
4. Clearly defined staff duties including the relationship of the training staff to the overall program.
5. Evidence that the training organizational structure suits the needs of the training program.
6. Appropriateness and adequacy of the training methods used by the instructors.
7. Sufficiency of the time committed by the training director and staff to the training program.
8. Adequacy of the ratio of training staff to students.
9. Availability and commitment of the training program of adequate human and equipment resources in the areas of:
 - a. Health effects,
 - b. Safety,
 - c. Personal protective equipment (PPE),

d. Operational procedures,

e. Employee protection practices/procedures.

10. Appropriateness of management controls.

11. Adequacy of the organization and appropriate resources assigned to assure appropriate training.

12. In the case of multiple-site training programs, adequacy of satellite centers management.

C. Training facilities and resources.

Adequacy and appropriateness of the facilities and resources for supporting the training program should be considered, including:

1. Space and equipment to conduct the training.

2. Facilities for representative hands-on training.

3. In the case of multiple-site programs, equipment and facilities at the satellite centers.

4. Adequacy and appropriateness of the quality control and evaluations program to account for instructor performance.

5. Adequacy and appropriateness of the quality control and evaluation program to ensure appropriate course evaluation, feedback, updating, and corrective action.

6. Adequacy and appropriateness of disciplines and expertise being used within the quality control and evaluation program.

7. Adequacy and appropriateness of the role of student evaluations to provide feedback for training program improvement.

D. Quality control and evaluation.

Adequacy and appropriateness of quality control and evaluation plans for training programs should be considered, including:

1. A balanced advisory committee and/or competent outside reviewers to give overall policy guidance;

2. Clear and adequate definition of the composition and active programmatic role of the advisory

committee or outside reviewers.

3. Adequacy of the minutes or reports of the advisory committee or outside reviewers' meetings or written communication.
4. Adequacy and appropriateness of the quality control and evaluations program to account for instructor performance.
5. Adequacy and appropriateness of the quality control and evaluation program to ensure appropriate course evaluation, feedback, updating, and corrective action.
6. Adequacy and appropriateness of disciplines and expertise being used within the quality control and evaluation program.
7. Adequacy and appropriateness of the role of student evaluations to provide feedback for training program improvement.

E. Students

Adequacy and appropriateness of the program for accepting students should be considered, including:

1. Assurance that the student already possess the necessary skills for their job, including necessary documentation.
2. Appropriateness of methods the program uses to ensure that recruits are capable of satisfactorily completing training.
3. Review and compliance with any medical clearance policy.

F. Institutional Environment and Administrative Support

The adequacy and appropriateness of the institutional environment and administrative support system for the training program should be considered, including:

1. Adequacy of the institutional commitment to the employee training program.
2. Adequacy and appropriateness of the administrative structure and administrative support.

G. Summary of Evaluation Questions

Key questions for evaluating the quality and appropriateness of an overall training program should include the following:

1. Are the program objectives clearly stated?
2. Is the program accomplishing its objectives?
3. Are appropriate facilities and staff available?
4. Is there an appropriate mix of classroom, demonstration, and hands-on training?
5. Is the program providing quality employee health and safety training that fully meets the intent of regulatory requirements?
6. What are the program's main strengths?
7. What are the program's main weaknesses?
8. What is recommended to improve the program?
9. Are instructors instructing according to their training outlines?
10. Is the evaluation tool current and appropriate for the program content?
11. Is the course material current and relevant to the target group?

Suggested Training Curriculum Guidelines

The following training curriculum guidelines are for those operations specifically identified in 29 CFR 1910.120 as requiring training. Issues such as qualifications of instructors, training certification, and similar criteria appropriate to all categories of operations addressed in 1910.120 have been covered in the preceding section and are not re-addressed in each of the generic guidelines. Basic core requirements for training programs that are addressed include:

1. General Hazardous Waste Operations
2. RCRA operations--Treatment, storage, and disposal facilities.
3. Emergency Response.

A. General Hazardous Waste Operations and Site-specific Training

1. Off-site training. Training course content for hazardous waste operations, required by 29 CFR

1910.120(e), should include the following topics or procedures:

a. Regulatory knowledge.

- (1) An review of 29 CFR 1910.120 and the core elements of an occupational safety and health program.
- (2) The content of a medical surveillance program as outlined in 29 CFR 1910.120(f).
- (3) The content of an effective site safety and health plan consistent with the requirements of 29 CFR 1910.120(b)(4)(ii).
- (4) Emergency response plan and procedures as outlined in 29 CFR 1910.38 and 29 CFR 1910.120(l).
- (5) Adequate illumination.
- (6) Sanitation recommendation and equipment.
- (7) Review and explanation of OSHA's hazard-communication standard (29 CFR 1910.1200) and lock-out-tag-out standard (29 CFR 1910.147).
- (8) Review of other applicable standards including but not limited to those in the construction standards (29 CFR Part 1926).
- (9) Rights and responsibilities of employers and employees under applicable OSHA and EPA laws.

b. Technical knowledge.

- (1) Type of potential exposures to chemical, biological, and radiological hazards; types of human responses to these hazards and recognition of those responses; principles of toxicology and information about acute and chronic hazards; health and safety considerations of new technology.
- (2) Fundamentals of chemical hazards including but not limited to vapor pressure, boiling points, flash points, pH, other physical and chemical properties.
- (3) Fire and explosion hazards of chemicals.
- (4) General safety hazards such as but not limited to electrical hazards, powered equipment hazards, motor vehicle hazards, walking- working surface hazards, excavation hazards, and hazards associated with working in hot and cold temperature extremes.
- (5) Review and knowledge of confined space entry procedures in 29 CFR 1910.146.

- (6) Work practices to minimize employee risk from site hazards.
- (7) Safe use of engineering controls, equipment, and any new relevant safety technology or safety procedures.
- (8) Review and demonstration of competency with air sampling and monitoring equipment that may be used in a site monitoring program.
- (9) Container sampling procedures and safeguarding; general drum and container handling procedures including special requirement for laboratory waste packs, shock-sensitive wastes, and radioactive wastes.
- (10) The elements of a spill control program.
- (11) Proper use and limitations of material handling equipment.
- (12) Procedures for safe and healthful preparation of containers for shipping and transport.
- (13) Methods of communication including those used while wearing respiratory protection.

c. Technical skills.

- (1) Selection, use maintenance, and limitations of personal protective equipment including the components and procedures for carrying out a respirator program to comply with 29 CFR 1910.134.
- (2) Instruction in decontamination programs including personnel, equipment, and hardware; hands-on training including level A, B, and C ensembles and appropriate decontamination lines; field activities including the donning and doffing of protective equipment to a level commensurate with the employee's anticipated job function and responsibility and to the degree required by potential hazards.
- (3) Sources for additional hazard information; exercises using relevant manuals and hazard coding systems.

d. Additional suggested items.

- (1) A laminated, dated card or certificate with photo, denoting limitations and level of protection for which the employee is trained should be issued to those students successfully completing a course.
- (2) Attendance should be required at all training modules, with successful completion of exercises and a final written or oral examination with at least 50 questions.
- (3) A minimum of one-third of the program should be devoted to hands-on exercises.

- (4) A curriculum should be established for the 8-hour refresher training required by 29 CFR 1910.120(e)(8), with delivery of such courses directed toward those areas of previous training that need improvement or reemphasis.
- (5) A curriculum should be established for the required 8-hour training for supervisors. Demonstrated competency in the skills and knowledge provided in a 40-hour course should be a prerequisite for supervisor training.

2. Refresher training.

The 8-hour annual refresher training required in 29 CFR 1910.120(e)(8) should be conducted by qualified training providers. Refresher training should include at a minimum the following topics and procedures:

- (a) Review of and retraining on relevant topics covered in the 40-hour program, as appropriate, using reports by the students on their work experiences.
- (b) Update on developments with respect to material covered in the 40-hour course.
- (c) Review of changes to pertinent provisions of EPA or OSHA standards or laws.
- (d) Introduction of additional subject areas as appropriate.
- (e) Hands-on review of new or altered PPE or decontamination equipment or procedures. Review of new developments in personal protective equipment.
- (f) Review of newly developed air and contaminant monitoring equipment.

3. On-site training.

a. The employer should provide employees engaged in hazardous waste site activities with information and training prior to initial assignment into their work area, as follows:

- (1) The requirements of the hazard communication program including the location and availability of the written program, required lists of hazardous chemicals, and material safety data sheets.
- (2) Activities and locations in their work area where hazardous substance may be present.
- (3) Methods and observations that may be used to detect the present or release of a hazardous chemical in the work area (such as monitoring conducted by the employer, continuous monitoring devices, visual appearances, or other evidence (sight, sound or smell) of hazardous chemicals being released, and applicable alarms from monitoring devices that record chemical releases.

- (4) The physical and health hazards of substances known or potentially present in the work area.
 - (5) The measures employees can take to help protect themselves from work-site hazards, including specific procedures the employer has implemented.
 - (6) An explanation of the labeling system and material safety data sheets and how employees can obtain and use appropriate hazard information.
 - (7) The elements of the confined space program including special PPE, permits, monitoring requirements, communication procedures, emergency response, and applicable lock-out procedures.
- b. The employer should provide hazardous waste employees information and training and should provide a review and access to the site safety and plan as follows:
- (1) Names of personnel and alternate responsible for site safety and health.
 - (2) Safety and health hazards present on the site.
 - (3) Selection, use, maintenance, and limitations of personal protective equipment specific to the site.
 - (4) Work practices by which the employee can minimize risks from hazards.
 - (5) Safe use of engineering controls and equipment available on site.
 - (6) Safe decontamination procedures established to minimize employee contact with hazardous substances, including:
 - (A) Employee decontamination,
 - (B) Clothing decontamination, and
 - (C) Equipment decontamination.
 - (7) Elements of the site emergency response plan, including:
 - (A) Pre-emergency planning.
 - (B) Personnel roles and lines of authority and communication.
 - (C) Emergency recognition and prevention.

(D) Safe distances and places of refuge.

(E) Site security and control.

(F) Evacuation routes and procedures.

(G) Decontamination procedures not covered by the site safety and health plan.

(H) Emergency medical treatment and first aid.

(I) Emergency equipment and procedures for handling emergency incidents.

c. The employer should provide hazardous waste employees information and training on personal protective equipment used at the site, such as the following:

(1) PPE to be used based upon known or anticipated site hazards.

(2) PPE limitations of materials and construction; limitations during temperature extremes, heat stress, and other appropriate medical considerations; use and limitations of respirator equipment as well as documentation procedures as outlined in 29 CFR 1910.134.

(3) PPE inspection procedures prior to, during, and after use.

(4) PPE donning and doffing procedures.

(5) PPE decontamination and disposal procedures.

(6) PPE maintenance and storage.

(7) Task duration as related to PPE limitations.

d. The employer should instruct the employee about the site medical surveillance program relative to the particular site, including:

(1) Specific medical surveillance programs that have been adapted for the site.

(2) Specific signs and symptoms related to exposure to hazardous materials on the site.

(3) The frequency and extent of periodic medical examinations that will be used on the site.

(4) Maintenance and availability of records.

(5) Personnel to be contacted and procedures to be followed when signs and symptoms of exposures are recognized.

e. The employees will review and discuss the site safety plan as part of the training program. The location of the site safety plan and all written programs should be discussed with employees including a discussion of the mechanisms for access, review, and references described.

B. RCRA Operations Training for Treatment, Storage and Disposal Facilities.

1. As a minimum, the training course required in 29 CFR 1910.120 (p) should include the following topics:

(a) Review of the applicable paragraphs of 29 CFR 1910.120 and the elements of the employer's occupational safety and health plan.

(b) Review of relevant hazards such as, but not limited to, chemical, biological, and radiological exposures; fire and explosion hazards; thermal extremes; and physical hazards.

(c) General safety hazards including those associated with electrical hazards, powered equipment hazards, lock-out-tag-out procedures, motor vehicle hazards and walking-working surface hazards.

(d) Confined-space hazards and procedures.

(e) Work practices to minimize employee risk from workplace hazards.

(f) Emergency response plan and procedures including first aid meeting the requirements of paragraph (p)(8).

(g) A review of procedures to minimize exposure to hazardous waste and various type of waste streams, including the materials handling program and spill containment program.

(h) A review of hazard communication programs meeting the requirements of 29 CFR 1910.1200.

(i) A review of medical surveillance programs meeting the requirements of 29 CFR 1910.120(p)(3) including the recognition of signs and symptoms of overexposure to hazardous substance including known synergistic interactions.

(j) A review of decontamination programs and procedures meeting the requirements of 29 CFR 1910.120(p)(4).

(k) A review of an employer's requirements to implement a training program and its elements.

- (l) A review of the criteria and programs for proper selection and use of personal protective equipment, including respirators.
 - (m) A review of the applicable appendices to 29 CFR 1910.120.
 - (n) Principles of toxicology and biological monitoring as they pertain to occupational health.
 - (o) Rights and responsibilities of employees and employers under applicable OSHA and EPA laws.
 - (p) Hands-on exercises and demonstrations of competency with equipment to illustrate the basic equipment principles that may be used during the performance of work duties, including the donning and doffing of PPE.
 - (q) Sources of reference, efficient use of relevant manuals, and knowledge of hazard coding systems to include information contained in hazardous waste manifests.
 - (r) At least 8 hours of hands-on training.
 - (s) Training in the job skills required for an employee's job function and responsibility before they are permitted to participate in or supervise field activities.
2. The individual employer should provide hazardous waste employees with information and training prior to an employee's initial assignment into a work area. The training and information should cover the following topics:
- (a) The Emergency response plan and procedures including first aid.
 - (b) A review of the employer's hazardous waste handling procedures including the materials handling program and elements of the spill containment program, location of spill response kits or equipment, and the names of those trained to respond to releases.
 - (c) The hazardous communication program meeting the requirements of 29 CFR 1910.1200.
 - (d) A review of the employer's medical surveillance program including the recognition of signs and symptoms of exposure to relevant hazardous substance including known synergistic interactions.
 - (e) A review of the employer's decontamination program and procedures.
 - (f) An review of the employer's training program and the parties responsible for that program.
 - (g) A review of the employer's personal protective equipment program including the proper selection and

use of PPE based upon specific site hazards.

(h) All relevant site-specific procedures addressing potential safety and health hazards. This may include, as appropriate, biological and radiological exposures, fire and explosion hazards, thermal hazards, and physical hazards such as electrical hazards, powered equipment hazards, lock-out-tag-out hazards, motor vehicle hazards, and walking-working surface hazards.

(i) Safe use engineering controls and equipment on site.

(j) Names of personnel and alternates responsible for safety and health.

C. Emergency response training.

Federal OSHA standards in 29 CFR 1910.120(q) are directed toward private sector emergency responders. Therefore, the guidelines provided in this portion of the appendix are directed toward that employee population. However, they also impact indirectly through State OSHA or USEPA regulations some public sector emergency responders. Therefore, the guidelines provided in this portion of the appendix may be applied to both employee populations.

States with OSHA state plans must cover their employees with regulations at least as effective as the Federal OSHA standards. Public employees in states without approved state OSHA programs covering hazardous waste operations and emergency response are covered by the U.S. EPA under 40 CFR 311, a regulation virtually identical to Sec. 1910.120.

Since this is a non-mandatory appendix and therefore not an enforceable standard, OSHA recommends that those employers, employees or volunteers in public sector emergency response organizations outside Federal OSHA jurisdiction consider the following criteria in developing their own training programs. A unified approach to training at the community level between emergency response organizations covered by Federal OSHA and those not covered directly by Federal OSHA can help ensure an effective community response to the release or potential release of hazardous substances in the community.

a. General considerations.

Emergency response organizations are required to consider the topics listed in Sec. 1910.120(q)(6). Emergency response organizations may use some or all of the following topics to supplement those mandatory topics when developing their response training programs. Many of the topics would require an interaction between the response provider and the individuals responsible for the site where the response would be expected.

(1) Hazard recognition, including:

(A) Nature of hazardous substances present,

(B) Practical applications of hazard recognition, including presentations on biology, chemistry, and physics.

(2) Principles of toxicology, biological monitoring, and risk assessment.

(3) Safe work practices and general site safety.

(4) Engineering controls and hazardous waste operations.

(5) Site safety plans and standard operating procedures.

(6) Decontamination procedures and practices.

(7) Emergency procedures, first aid, and self-rescue.

(8) Safe use of field equipment.

(9) Storage, handling, use and transportation of hazardous substances.

(10) Use, care, and limitations of personal protective equipment.

(11) Safe sampling techniques.

(12) Rights and responsibilities of employees under OSHA and other related laws concerning right-to-know, safety and health, compensations and liability.

(13) Medical monitoring requirements.

(14) Community relations.

b. Suggested criteria for specific courses.

(1) First responder awareness level.

(A) Review of and demonstration of competency in performing the applicable skills of 29 CFR 1910.120(q).

(B) Hands-on experience with the U.S. Department of Transportation's Emergency Response Guidebook (ERG) and familiarization with OSHA standard 29 CFR 1910.1201.

(C) Review of the principles and practices for analyzing an incident to determine both the hazardous

substances present and the basic hazard and response information for each hazardous substance present.

(D) Review of procedures for implementing actions consistent with the local emergency response plan, the organization's standard operating procedures, and the current edition of DOT's ERG including emergency notification procedures and follow-up communications.

(E) Review of the expected hazards including fire and explosions hazards, confined space hazards, electrical hazards, powered equipment hazards, motor vehicle hazards, and walking-working surface hazards.

(F) Awareness and knowledge of the competencies for the First Responder at the Awareness Level covered in the National Fire Protection Association's Standard No. 472, Professional Competence of Responders to Hazardous Materials Incidents.

(2) First responder operations level.

(A) Review of and demonstration of competency in performing the applicable skills of 29 CFR 1910.120(q).

(B) Hands-on experience with the U.S. Department of Transportation's Emergency Response Guidebook (ERG), manufacturer material safety data sheets, CHEMTREC/CANUTEC, shipper or manufacturer contacts, and other relevant sources of information addressing hazardous substance releases. Familiarization with OSHA standard 29 CFR 1910.1201.

(C) Review of the principles and practices for analyzing an incident to determine the hazardous substances present, the likely behavior of the hazardous substance and its container, the types of hazardous substance transportation containers and vehicles, the types and selection of the appropriate defensive strategy for containing the release.

(D) Review of procedures for implementing continuing response actions consistent with the local emergency response plan, the organization's standard operating procedures, and the current edition of DOT's ERG including extended emergency notification procedures and follow-up communications.

(E) Review of the principles and practice for proper selection and use of personal protective equipment.

(F) Review of the principles and practice of personnel and equipment decontamination.

(G) Review of the expected hazards including fire and explosions hazards, confined space hazards, electrical hazards, powered equipment hazards, motor vehicle hazards, and walking-working surface hazards.

(H) Awareness and knowledge of the competencies for the First Responder at the Operations Level

covered in the National Fire Protection Association's Standard No. 472, Professional Competence of Responders to Hazardous Materials Incidents.

(3) Hazardous materials technician.

(A) Review of and demonstration of competency in performing the applicable skills of 29 CFR 1910.120(q).

(B) Hands-on experience with written and electronic information relative to response decision making including but not limited to the U.S. Department of Transportation's Emergency Response Guidebook (ERG), manufacturer material safety data sheets, CHEMTREC/CANUTEC, shipper or manufacturer contacts, computer data bases and response models, and other relevant sources of information addressing hazardous substance releases. Familiarization with OSHA standard 29 CFR 1910.1201.

(C) Review of the principles and practices for analyzing an incident to determine the hazardous substances present, their physical and chemical properties, the likely behavior of the hazardous substance and its container, the types of hazardous substance transportation containers and vehicles involved in the release, the appropriate strategy for approaching release sites and containing the release.

(D) Review of procedures for implementing continuing response actions consistent with the local emergency response plan, the organization's standard operating procedures, and the current edition of DOT's ERG including extended emergency notification procedures and follow-up communications.

(E) Review of the principles and practice for proper selection and use of personal protective equipment.

(F) Review of the principles and practices of establishing exposure zones, proper decontamination and medical surveillance stations and procedures.

(G) Review of the expected hazards including fire and explosions hazards, confined space hazards, electrical hazards, powered equipment hazards, motor vehicle hazards, and walking-working surface hazards.

(H) Awareness and knowledge of the competencies for the Hazardous Materials Technician covered in the National Fire Protection Association's Standard No. 472, Professional Competence of Responders to Hazardous Materials Incidents.

(4) Hazardous materials specialist.

(A) Review of and demonstration of competency in performing the applicable skills of 29 CFR 1910.120(q).

(B) Hands-on experience with retrieval and use of written and electronic information relative to response

decision making including but not limited to the U.S. Department of Transportation's Emergency Response Guidebook (ERG), manufacturer material safety data sheets, CHEMTREC/CANUTEC, shipper or manufacturer contacts, computer data bases and response models, and other relevant sources of information addressing hazardous substance releases. Familiarization with OSHA standard 29 CFR 1910.1201.

(C) Review of the principles and practices for analyzing an incident to determine the hazardous substances present, their physical and chemical properties, and the likely behavior of the hazardous substance and its container, vessel, or vehicle.

(D) Review of the principles and practices for identification of the types of hazardous substance transportation containers, vessels and vehicles involved in the release; selecting and using the various types of equipment available for plugging or patching transportation containers, vessels or vehicles; organizing and directing the use of multiple teams of hazardous material technicians and selecting the appropriate strategy for approaching release sites and containing or stopping the release.

(E) Review of procedures for implementing continuing response actions consistent with the local emergency response plan, the organization's standard operating procedures, including knowledge of the available public and private response resources, establishment of an incident command post, direction of hazardous material technician teams, and extended emergency notification procedures and follow-up communications.

(F) Review of the principles and practice for proper selection and use of personal protective equipment.

(G) Review of the principles and practices of establishing exposure zones and proper decontamination, monitoring and medical surveillance stations and procedures.

(H) Review of the expected hazards including fire and explosions hazards, confined space hazards, electrical hazards, powered equipment hazards, motor vehicle hazards, and walking-working surface hazards.

(I) Awareness and knowledge of the competencies for the Off-site Specialist Employee covered in the National Fire Protection Association's Standard No. 472, Professional Competence of Responders to Hazardous Materials Incidents.

(5) Incident commander.

The incident commander is the individual who, at any one time, is responsible for and in control of the response effort. This individual is the person responsible for the direction and coordination of the response effort. An incident commander's position should be occupied by the most senior, appropriately trained individual present at the response site. Yet, as necessary and appropriate by the level of response provided, the position may be occupied by many individuals during a particular response as the need for greater authority, responsibility, or training increases. It is possible for the first responder at the

awareness level to assume the duties of incident commander until a more senior and appropriately trained individual arrives at the response site.

Therefore, any emergency responder expected to perform as an incident commander should be trained to fulfill the obligations of the position at the level of response they will be providing including the following:

- (A) Ability to analyze a hazardous substance incident to determine the magnitude of the response problem.
- (B) Ability to plan and implement an appropriate response plan within the capabilities of available personnel and equipment.
- (C) Ability to implement a response to favorably change the outcome of the incident in a manner consistent with the local emergency response plan and the organization's standard operating procedures.
- (D) Ability to evaluate the progress of the emergency response to ensure that the response objectives are being met safely, effectively, and efficiently.
- (E) Ability to adjust the response plan to the conditions of the response and to notify higher levels of response when required by the changes to the response plan.

[54 FR 9317, Mar. 6, 1898, as amended at 55 FR 14073, Apr. 13, 1990; 56 FR 15832, Apr. 18, 1991; 59 FR 43268, Aug. 22, 1994; 61 FR 9227, March 7, 1996]

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The following references may be consulted for further information on the subject of this standard:

1. OSHA Instruction DFO CPL 2.70 - January 29, 1986, Special Emphasis Program: Hazardous Waste Sites.
2. OSHA Instruction DFO CPL 2-2.37A - January 29, 1986, Technical Assistance and Guidelines for Superfund and Other Hazardous Waste Site Activities.
3. OSHA Instruction DTS CPL 2.74 - January 29, 1986, Hazardous Waste Activity Form, OSHA 175.
4. Hazardous Waste Inspections Reference Manual, U.S. Department of Labor, Occupational Safety and Health Administration, 1986.
5. Memorandum of Understanding Among the National Institute for Occupational Safety and Health, the Occupational Safety and Health Administration, the United States Coast Guard, and the United States Environmental Protection Agency, Guidance for Worker Protection During Hazardous Waste Site Investigations and Clean-up and Hazardous Substance Emergencies. December 18, 1980.
6. National Priorities List, 1st Edition, October 1984; U.S. Environmental Protection Agency, Revised periodically.
7. The Decontamination of Response Personnel, Field Standard Operating Procedures (F.S.O.P.) 7; U.S. Environmental Protection Agency, Office of Emergency and Remedial Response, Hazardous Response Support Division, December 1984.

8. Preparation of a Site Safety Plan, Field Standard Operating Procedures (F.S.O.P.) 9; U.S. Environmental Protection Agency, Office of Emergency and Remedial Response, Hazardous Response Support Division, April 1985.
9. Standard Operating Safety Guidelines; U.S. Environmental Protection Agency, Office of Emergency and Remedial Response, Hazardous Response Support Division, Environmental Response Team; November 1984.
10. Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities, National Institute for Occupational Safety and Health (NIOSH), Occupational Safety and Health Administration (OSHA), U.S. Coast Guard (USCG), and Environmental Protection Agency (EPA); October 1985.
11. Protecting Health and Safety at Hazardous Waste Sites: An Overview, U.S. Environmental Protection Agency, EPA/625/9-85/006; September 1985.
12. Hazardous Waste Sites and Hazardous Substance Emergencies, NIOSH Worker Bulletin, U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control, National Institute for Occupational Safety and Health; December 1982.
13. Personal Protective Equipment for Hazardous Materials Incidents: A Selection Guide; U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control, National Institute for Occupational Safety and Health; October 1984.
14. Fire Service Emergency Management Handbook, Federal Emergency Management Agency, Washington, DC, January 1985.
15. Emergency Response Guidebook, U.S. Department of Transportation, Washington, DC, 1987.
16. Report to the Congress on Hazardous Materials Training. Planning and Preparedness, Federal Emergency Management Agency, Washington, DC, July 1986.
17. Workbook for Fire Command, Alan V. Brunacini and J. David Beageron, National Fire Protection Association, Batterymarch Park, Quincy, MA 02269, 1985.
18. Fire Command, Alan B. Brunacini, National Fire Protection Association, Batterymarch Park, Quincy, MA 02269, 1985.
19. Incident Command System, Fire Protection Publications, Oklahoma State University, Stillwater, OK 74078, 1983.
20. Site Emergency Response Planning, Chemical Manufacturers Association, Washington, DC 20037, 1986.

21. Hazardous Materials Emergency Planning Guide, NRT-1, Environmental Protection Agency, Washington, DC, March 1987.
22. Community Teamwork: Working Together to Promote Hazardous Materials Transportation Safety. U.S. Department of Transportation, Washington, DC, May 1983.
23. Disaster Planning Guide for Business and Industry, Federal Emergency Management Agency, Publication No. FEMA 141, August 1987.

(The Office of Management and Budget has approved the information collection requirements in this section under control number 1218-0139)

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Regulations (Standards - 29 CFR)

Hazardous waste operations and emergency response. - 1910.120

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• Part Number:	1910
• Part Title:	Occupational Safety and Health Standards
• Subpart:	H
• Subpart Title:	Hazardous Materials
• Standard Number:	1910.120
• Title:	Hazardous waste operations and emergency response.
• Appendix:	A , B , C , D , E

1910.120(a)

Scope, application, and definitions. -

[1910.120\(a\)\(1\)](#)

Scope. This section covers the following operations, unless the employer can demonstrate that the operation does not involve employee exposure or the reasonable possibility for employee exposure to safety or health hazards:

[1910.120\(a\)\(1\)\(i\)](#)

Clean-up operations required by a governmental body, whether Federal, state local or other involving hazardous substances that are conducted at uncontrolled hazardous waste sites (including, but not limited to, the EPA's National Priority Site List (NPL), state priority site lists, sites recommended for the EPA NPL, and initial investigations of government identified sites which are conducted before the presence or absence of hazardous substances has been ascertained;

[1910.120\(a\)\(1\)\(ii\)](#)

Corrective actions involving clean-up operations at sites covered by the Resource Conservation and Recovery Act of 1976 (RCRA) as amended (42 U.S.C. 6901 et seq);

[1910.120\(a\)\(1\)\(iii\)](#)

[1910.120\(a\)\(1\)\(iii\)](#)

Voluntary clean-up operations at sites recognized by Federal, state, local or other governmental bodies as uncontrolled hazardous waste sites;

[1910.120\(a\)\(1\)\(iv\)](#)

Operations involving hazardous waste that are conducted at treatment, storage, disposal (TSD) facilities regulated by 40 CFR Parts 264 and 265 pursuant to RCRA; or by agencies under agreement with U.S.E.P.A. to implement RCRA regulations; and

[1910.120\(a\)\(1\)\(v\)](#)

Emergency response operations for releases of, or substantial threats of releases of, hazardous substances without regard to the location of the hazard.

1910.120(a)(2)

Application.

1910.120(a)(2)(i)

All requirements of Part 1910 and Part 1926 of Title 29 of the Code of Federal Regulations apply pursuant to their terms to hazardous waste and emergency response operations whether covered by this section or not. If there is a conflict or overlap, the provision more protective of employee safety and health shall apply without regard to 29 CFR 1910.5(c)(1).

1910.120(a)(2)(ii)

Hazardous substance clean-up operations within the scope of paragraphs (a)(1)(i) through (a)(1)(iii) of this section must comply with all paragraphs of this section except paragraphs (p) and (q).

1910.120(a)(2)(iii)

Operations within the scope of paragraph (a)(1)(iv) of this section must comply only with the requirements of paragraph (p) of this section.

Notes and Exceptions:

1910.120(a)(2)(iii)(A)

All provisions of paragraph (p) of this section cover any treatment, storage or disposal (TSD) operation regulated by 40 CFR parts 264 and 265 or by state law authorized under RCRA, and required to have a permit or interim status from EPA pursuant to 40 CFR 270.1 or from a state agency pursuant to RCRA.

1910.120(a)(2)(iii)(B)

Employers who are not required to have a permit or interim status because they are conditionally exempt small quantity generators under 40 CFR 261.5 or are generators who qualify under 40 CFR 262.34 for exemptions from regulation under 40 CFR parts 264, 265 and 270 ("excepted employers") are not covered by paragraphs (p)(1) through (p)(7) of this section. Excepted employers who are required by the EPA or state agency to have their employees engage in emergency response or who direct their employees to engage in emergency response are covered by paragraph (p)(8) of this section, and cannot be exempted by (p)(8)(i) of this section.

..1910.120(a)(2)(iii)(C)

1910.120(a)(2)(iii)(C)

If an area is used primarily for treatment, storage or disposal, any emergency response operations in that area shall comply with paragraph (p) (8) of this section. In other areas not used primarily for treatment, storage, or disposal, any emergency response operations shall comply with paragraph (q) of this section. Compliance with the requirements of paragraph (q) of this section shall be deemed to be in compliance with the requirements of paragraph (p)(8) of this section.

1910.120(a)(2)(iv)

Emergency response operations for releases of, or substantial threats of releases of, hazardous substances

which are not covered by paragraphs (a)(1)(i) through (a)(1)(iv) of this section must only comply with the requirements of paragraph (q) of this section.

1910.120(a)(3)

Definitions -

"Buddy system" means a system of organizing employees into work groups in such a manner that each employee of the work group is designated to be observed by at least one other employee in the work group. The purpose of the buddy system is to provide rapid assistance to employees in the event of an emergency.

"Clean-up operation" means an operation where hazardous substances are removed, contained, incinerated, neutralized, stabilized, cleared-up, or in any other manner processed or handled with the ultimate goal of making the site safer for people or the environment.

"Decontamination" means the removal of hazardous substances from employees and their equipment to the extent necessary to preclude the occurrence of foreseeable adverse health effects.

"Emergency response" or "responding to emergencies" means a response effort by employees from outside the immediate release area or by other designated responders (i.e., mutual aid groups, local fire departments, etc.) to an occurrence which results, or is likely to result, in an uncontrolled release of a hazardous substance. Responses to incidental releases of hazardous substances where the substance can be absorbed, neutralized, or otherwise controlled at the time of release by employees in the immediate release area, or by maintenance personnel are not considered to be emergency responses within the scope of this standard. Responses to releases of hazardous substances where there is no potential safety or health hazard (i.e., fire, explosion, or chemical exposure) are not considered to be emergency responses.

"Facility" means (A) any building, structure, installation, equipment, pipe or pipeline (including any pipe into a sewer or publicly owned treatment works), well, pit, pond, lagoon, impoundment, ditch, storage container, motor vehicle, rolling stock, or aircraft, or (B) any site or area where a hazardous substance has been deposited, stored, disposed of, or placed, or otherwise come to be located; but does not include any consumer product in consumer use or any water-borne vessel.

"Hazardous materials response (HAZMAT) team" means an organized group of employees, designated by the employer, who are expected to perform work to handle and control actual or potential leaks or spills of hazardous substances requiring possible close approach to the substance. The team members perform responses to releases or potential releases of hazardous substances for the purpose of control or stabilization of the incident. A HAZMAT team is not a fire brigade nor is a typical fire brigade a HAZMAT team. A HAZMAT team, however, may be a separate component of a fire brigade or fire department.

"Hazardous substance" means any substance designated or listed under (A) through (D) of this definition, exposure to which results or may result in adverse effects on the health or safety of employees:

[A] Any substance defined under section 101(14) of CERCLA;

[B] Any biologic agent and other disease causing agent which after release into the environment and upon exposure, ingestion, inhalation, or assimilation into any person, either directly from the environment or indirectly by ingestion through food chains, will or may reasonably be anticipated to cause death, disease, behavioral abnormalities, cancer, genetic mutation, physiological malfunctions (including malfunctions in reproduction) or physical deformations in such persons or their offspring.

[C] Any substance listed by the U.S. Department of Transportation as hazardous materials under 49 CFR 172.101 and appendices; and

[D] Hazardous waste as herein defined.

"Hazardous waste" means -

[A] A waste or combination of wastes as defined in 40 CFR 261.3, or

[B] Those substances defined as hazardous wastes in 49 CFR 171.8.

"Hazardous waste operation" means any operation conducted within the scope of this standard.

"Hazardous waste site" or "Site" means any facility or location within the scope of this standard at which hazardous waste operations take place.

"Health hazard" means a chemical, mixture of chemicals or a pathogen for which there is statistically significant evidence based on at least one study conducted in accordance with established scientific principles that acute or chronic health effects may occur in exposed employees. The term "health hazard" includes chemicals which are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, sensitizers, hepatotoxins, nephrotoxins, neurotoxins, agents which act on the hematopoietic system, and agents which damage the lungs, skin, eyes, or mucous membranes. It also includes stress due to temperature extremes. Further definition of the terms used above can be found in Appendix A to 29 CFR 1910.1200.

"IDLH" or "Immediately dangerous to life or health" means an atmospheric concentration of any toxic, corrosive or asphyxiant substance that poses an immediate threat to life or would interfere with an individual's ability to escape from a dangerous atmosphere.

"Oxygen deficiency" means that concentration of oxygen by volume below which atmosphere supplying respiratory protection must be provided. It exists in atmospheres where the percentage of oxygen by volume is less than 19.5 percent oxygen.

"Permissible exposure limit" means the exposure, inhalation or dermal permissible exposure limit specified in 29 CFR Part 1910, Subparts G and Z.

"Published exposure level" means the exposure limits published in "NIOSH Recommendations for Occupational Health Standards" dated 1986, which is incorporated by reference as specified in Sec. 1910.6, or if none is specified, the exposure limits published in the standards specified by the American Conference of Governmental Industrial Hygienists in their publication "Threshold Limit Values and Biological Exposure Indices for 1987 - 88" dated 1987, which is incorporated by reference as specified in Sec. 1910.6.

"Post emergency response" means that portion of an emergency response performed after the immediate threat of a release has been stabilized or eliminated and clean-up of the site has begun. If post emergency response is performed by an employer's own employees who were part of the initial emergency response, it is considered to be part of the initial response and not post emergency response. However, if a group of an employer's own employees, separate from the group providing initial response, performs the clean-up operation, then the separate group of employees would be considered to be performing post-emergency response and subject to paragraph (q)(11) of this section.

"Qualified person" means a person with specific training, knowledge and experience in the area for which the person has the responsibility and the authority to control.

"Site safety and health supervisor (or official)" means the individual located on a hazardous waste site who is responsible to the employer and has the authority and knowledge necessary to implement the site safety

and health plan and verify compliance with applicable safety and health requirements.

"Small quantity generator" means a generator of hazardous wastes who in any calendar month generates no more than 1,000 kilograms (2,205) pounds of hazardous waste in that month.

"Uncontrolled hazardous waste site" means an area identified as an uncontrolled hazardous waste site by a governmental body, whether Federal, state, local or other where an accumulation of hazardous substances creates a threat to the health and safety of individuals or the environment or both. Some sites are found on public lands such as those created by former municipal, county or state landfills where illegal or poorly managed waste disposal has taken place. Other sites are found on private property, often belonging to generators or former generators of hazardous substance wastes. Examples of such sites include, but are not limited to, surface impoundments, landfills, dumps, and tank or drum farms. Normal operations at TSD sites are not covered by this definition.

1910.120(b)

Safety and health program.

NOTE TO (b): Safety and health programs developed and implemented to meet other federal, state, or local regulations are considered acceptable in meeting this requirement if they cover or are modified to cover the topics required in this paragraph. An additional or separate safety and health program is not required by this paragraph.

1910.120(b)(1)

General.

1910.120(b)(1)(i)

Employers shall develop and implement a written safety and health program for their employees involved in hazardous waste operations. The program shall be designed to identify, evaluate, and control safety and health hazards, and provide for emergency response for hazardous waste operations.

1910.120(b)(1)(ii)

The written safety and health program shall incorporate the following:

1910.120(b)(1)(ii)(A)

An organizational structure;

1910.120(b)(1)(ii)(B)

A comprehensive workplan;

..1910.120(b)(1)(ii)(C)

1910.120(b)(1)(ii)(C)

A site-specific safety and health plan which need not repeat the employer's standard operating procedures required in paragraph (b)(1)(ii)(F) of this section;

1910.120(b)(1)(ii)(D)

The safety and health training program;

1910.120(b)(1)(ii)(E)

The medical surveillance program;

1910.120(b)(1)(ii)(F)

The employer's standard operating procedures for safety and health; and

1910.120(b)(1)(ii)(G)

Any necessary interface between general program and site specific activities.

1910.120(b)(1)(iii)

Site excavation. Site excavations created during initial site preparation or during hazardous waste operations shall be shored or sloped as appropriate to prevent accidental collapse in accordance with Subpart P of 29 CFR Part 1926.

1910.120(b)(1)(iv)

Contractors and sub-contractors. An employer who retains contractor or sub-contractor services for work in hazardous waste operations shall inform those contractors, sub-contractors, or their representatives of the site emergency response procedures and any potential fire, explosion, health, safety or other hazards of the hazardous waste operation that have been identified by the employer's information program.

1910.120(b)(1)(v)

Program availability. The written safety and health program shall be made available to any contractor or subcontractor or their representative who will be involved with the hazardous waste operation; to employees; to employee designated representatives; to OSHA personnel, and to personnel of other Federal, state, or local agencies with regulatory authority over the site.

1910.120(b)(2)

Organizational structure part of the site program. -

1910.120(b)(2)(i)

The organizational structure part of the program shall establish the specific chain of command and specify the overall responsibilities of supervisors and employees. It shall include, at a minimum, the following elements:

1910.120(b)(2)(i)(A)

A general supervisor who has the responsibility and authority to direct all hazardous waste operations.

1910.120(b)(2)(i)(B)

A site safety and health supervisor who has the responsibility and authority to develop and implement the site safety and health plan and verify compliance.

1910.120(b)(2)(i)(C)

All other personnel needed for hazardous waste site operations and emergency response and their general functions and responsibilities.

1910.120(b)(2)(i)(D)

The lines of authority, responsibility, and communication.

1910.120(b)(2)(ii)

The organizational structure shall be reviewed and updated as necessary to reflect the current status of waste site operations.

..1910.120(b)(3)

1910.120(b)(3)

Comprehensive workplan part of the site program. The comprehensive workplan part of the program shall address the tasks and objectives of the site operations and the logistics and resources required to reach those tasks and objectives.

1910.120(b)(3)(i)

The comprehensive workplan shall define anticipated clean-up activities as well as normal operating procedures which need not repeat the employer's procedures available elsewhere.

1910.120(b)(3)(ii)

The comprehensive workplan shall define work tasks and objectives and identify the methods for accomplishing those tasks and objectives.

1910.120(b)(3)(iii)

The comprehensive workplan shall establish personnel requirements for implementing the plan.

1910.120(b)(3)(iv)

The comprehensive workplan shall provide for the implementation of the training required in paragraph (e) of this section.

1910.120(b)(3)(v)

The comprehensive workplan shall provide for the implementation of the required informational programs required in paragraph (i) of this section.

1910.120(b)(3)(vi)

The comprehensive workplan shall provide for the implementation of the medical surveillance program described in paragraph (f) if this section.

1910.120(b)(4)

Site-specific safety and health plan part of the program. -

1910.120(b)(4)(i)

General. The site safety and health plan, which must be kept on site, shall address the safety and health hazards of each phase of site operation and include the requirements and procedures for employee protection.

1910.120(b)(4)(ii)

Elements. The site safety and health plan, as a minimum, shall address the following:

1910.120(b)(4)(ii)(A)

A safety and health risk or hazard analysis for each site task and operation found in the workplan.

1910.120(b)(4)(ii)(B)

Employee training assignments to assure compliance with paragraph (e) of this section.

1910.120(b)(4)(ii)(C)

Personal protective equipment to be used by employees for each of the site tasks and operations being conducted as required by the personal protective equipment program in paragraph (g)(5) of this section.

1910.120(b)(4)(ii)(D)

Medical surveillance requirements in accordance with the program in paragraph (f) of this section.

1910.120(b)(4)(ii)(E)

Frequency and types of air monitoring, personnel monitoring, and environmental sampling techniques and instrumentation to be used, including methods of maintenance and calibration of monitoring and sampling equipment to be used.

..1910.120(b)(4)(ii)(F)

1910.120(b)(4)(ii)(F)

Site control measures in accordance with the site control program required in paragraph (d) of this section.

1910.120(b)(4)(ii)(G)

Decontamination procedures in accordance with paragraph (k) of this section.

1910.120(b)(4)(ii)(H)

An emergency response plan meeting the requirements of paragraph (l) of this section for safe and effective responses to emergencies, including the necessary PPE and other equipment.

1910.120(b)(4)(ii)(I)

Confined space entry procedures.

1910.120(b)(4)(ii)(J)

A spill containment program meeting the requirements of paragraph (j) of this section.

1910.120(b)(4)(iii)

Pre-entry briefing. The site specific safety and health plan shall provide for pre-entry briefings to be held prior to initiating any site activity, and at such other times as necessary to ensure that employees are apprised of the site safety and health plan and that this plan is being followed. The information and data obtained from site characterization and analysis work required in paragraph (c) of this section shall be

used to prepare and update the site safety and health plan.

..1910.120(b)(4)(iv)

1910.120(b)(4)(iv)

Effectiveness of site safety and health plan. Inspections shall be conducted by the site safety and health supervisor or, in the absence of that individual, another individual who is knowledgeable in occupational safety and health, acting on behalf of the employer as necessary to determine the effectiveness of the site safety and health plan. Any deficiencies in the effectiveness of the site safety and health plan shall be corrected by the employer.

1910.120(c)

Site characterization and analysis -

1910.120(c)(1)

General. Hazardous waste sites shall be evaluated in accordance with this paragraph to identify specific site hazards and to determine the appropriate safety and health control procedures needed to protect employees from the identified hazards.

1910.120(c)(2)

Preliminary evaluation. A preliminary evaluation of a site's characteristics shall be performed prior to site entry by a qualified person in order to aid in the selection of appropriate employee protection methods prior to site entry. Immediately after initial site entry, a more detailed evaluation of the site's specific characteristics shall be performed by a qualified person in order to further identify existing site hazards and to further aid in the selection of the appropriate engineering controls and personal protective equipment for the tasks to be performed.

1910.120(c)(3)

Hazard identification. All suspected conditions that may pose inhalation or skin absorption hazards that are immediately dangerous to life or health (IDLH) or other conditions that may cause death or serious harm shall be identified during the preliminary survey and evaluated during the detailed survey. Examples of such hazards include, but are not limited to, confined space entry, potentially explosive or flammable situations, visible vapor clouds, or areas where biological indicators such as dead animals or vegetation are located.

1910.120(c)(4)

Required information. The following information to the extent available shall be obtained by the employer prior to allowing employees to enter a site:

1910.120(c)(4)(i)

Location and approximate size of the site.

1910.120(c)(4)(ii)

Description of the response activity and/or the job task to be performed.

1910.120(c)(4)(iii)

Duration of the planned employee activity.

1910.120(c)(4)(iv)

Site topography and accessibility by air and roads.

1910.120(c)(4)(v)

Safety and health hazards expected at the site.

1910.120(c)(4)(vi)

Pathways for hazardous substance dispersion.

1910.120(c)(4)(vii)

Present status and capabilities of emergency response teams that would provide assistance to on-site employees at the time of an emergency.

1910.120(c)(4)(viii)

Hazardous substances and health hazards involved or expected at the site and their chemical and physical properties.

..1910.120(c)(5)

1910.120(c)(5)

Personal protective equipment (PPE) shall be provided and used during initial site entry in accordance with the following requirements:

1910.120(c)(5)(i)

Based upon the results of the preliminary site evaluation, an ensemble of PPE shall be selected and used during initial site entry which will provide protection to a level of exposure below permissible exposure limits and published exposure levels for known or suspected hazardous substances and health hazards and which will provide protection against other known and suspected hazards identified during the preliminary site evaluation. If there is no permissible exposure limit or published exposure level, the employer may use other published studies and information as a guide to appropriate personal protective equipment.

1910.120(c)(5)(ii)

If positive-pressure self-contained breathing apparatus is not used as part of the entry ensemble, and if respiratory protection is warranted by the potential hazards identified during the preliminary site evaluation, an escape self-contained breathing apparatus of at least five minute's duration shall be carried by employees during initial site entry.

1910.120(c)(5)(iii)

If the preliminary site evaluation does not produce sufficient information to identify the hazards or suspected hazards of the site an ensemble providing equivalent to Level B PPE shall be provided as minimum protection, and direct reading instruments shall be used as appropriate for identifying IDLH conditions. (See Appendix B for guidelines on Level B protective equipment.)

1910.120(c)(5)(iv)

Once the hazards of the site have been identified, the appropriate PPE shall be selected and used in

accordance with paragraph (g) of this section.

1910.120(c)(6)

Monitoring. The following monitoring shall be conducted during initial site entry when the site evaluation produces information which shows the potential for ionizing radiation or IDLH conditions, or when the site information is not sufficient reasonably to eliminate these possible conditions:

1910.120(c)(6)(i)

Monitoring with direct reading instruments for hazardous levels of ionizing radiation.

1910.120(c)(6)(ii)

Monitoring the air with appropriate direct reading test equipment for (i.e., combustible gas meters, detector tubes) for IDLH and other conditions that may cause death or serious harm (combustible or explosive atmospheres, oxygen deficiency, toxic substances.)

1910.120(c)(6)(iii)

Visually observing for signs of actual or potential IDLH or other dangerous conditions.

1910.120(c)(6)(iv)

An ongoing air monitoring program in accordance with paragraph (h) of this section shall be implemented after site characterization has determined the site is safe for the start-up of operations.

1910.120(c)(7)

Risk identification. Once the presence and concentrations of specific hazardous substances and health hazards have been established, the risks associated with these substances shall be identified. Employees who will be working on the site shall be informed of any risks that have been identified. In situations covered by the Hazard Communication Standard, 29 CFR 1910.1200, training required by that standard need not be duplicated.

NOTE TO (c)(7). - Risks to consider include, but are not limited to:

- [a] Exposures exceeding the permissible exposure limits and published exposure levels.
- [b] IDLH Concentrations.
- [c] Potential Skin Absorption and Irritation Sources.
- [d] Potential Eye Irritation Sources.
- [e] Explosion Sensitivity and Flammability Ranges.
- [f] Oxygen deficiency.

1910.120(c)(8)

Employee notification. Any information concerning the chemical, physical, and toxicologic properties of each substance known or expected to be present on site that is available to the employer and relevant to the duties an employee is expected to perform shall be made available to the affected employees prior to the commencement of their work activities. The employer may utilize information developed for the hazard communication standard for this purpose.

1910.120(d)

Site control.-

1910.120(d)(1)

General. Appropriate site control procedures shall be implemented to control employee exposure to hazardous substances before clean-up work begins.

..1910.120(d)(2)

1910.120(d)(2)

Site control program. A site control program for protecting employees which is part of the employer's site safety and health program required in paragraph (b) of this section shall be developed during the planning stages of a hazardous waste clean-up operation and modified as necessary as new information becomes available.

1910.120(d)(3)

Elements of the site control program. The site control program shall, as a minimum, include: A site map; site work zones; the use of a "buddy system"; site communications including alerting means for emergencies; the standard operating procedures or safe work practices; and, identification of the nearest medical assistance. Where these requirements are covered elsewhere they need not be repeated.

1910.120(e)

Training. -

1910.120(e)(1)

General.

1910.120(e)(1)(i)

All employees working on site (such as but not limited to equipment operators, general laborers and others) exposed to hazardous substances, health hazards, or safety hazards and their supervisors and management responsible for the site shall receive training meeting the requirements of this paragraph before they are permitted to engage in hazardous waste operations that could expose them to hazardous substances, safety, or health hazards, and they shall receive review training as specified in this paragraph.

1910.120(e)(1)(ii)

Employees shall not be permitted to participate in or supervise field activities until they have been trained to a level required by their job function and responsibility.

..1910.120(e)(2)

1910.120(e)(2)

Elements to be covered. The training shall thoroughly cover the following:

1910.120(e)(2)(i)

Names of personnel and alternates responsible for site safety and health;

1910.120(e)(2)(ii)

Safety, health and other hazards present on the site;

1910.120(e)(2)(iii)

Use of PPE;

1910.120(e)(2)(iv)

Work practices by which the employee can minimize risks from hazards;

1910.120(e)(2)(v)

Safe use of engineering controls and equipment on the site;

1910.120(e)(2)(vi)

Medical surveillance requirements including recognition of symptoms and signs which might indicate over exposure to hazards; and

1910.120(e)(2)(vii)

The contents of paragraphs (G) through (J) of the site safety and health plan set forth in paragraph (b)(4)(ii) of this section.

..1910.120(e)(3)

1910.120(e)(3)

Initial training.

1910.120(e)(3)(i)

General site workers (such as equipment operators, general laborers and supervisory personnel) engaged in hazardous substance removal or other activities which expose or potentially expose workers to hazardous substances and health hazards shall receive a minimum of 40 hours of instruction off the site, and a minimum of three days actual field experience under the direct supervision of a trained experienced supervisor.

1910.120(e)(3)(ii)

Workers on site only occasionally for a specific limited task (such as, but not limited to, ground water monitoring, land surveying, or geophysical surveying) and who are unlikely to be exposed over permissible exposure limits and published exposure limits shall receive a minimum of 24 hours of instruction off the site, and the minimum of one day actual field experience under the direct supervision of a trained, experienced supervisor.

1910.120(e)(3)(iii)

Workers regularly on site who work in areas which have been monitored and fully characterized indicating that exposures are under permissible exposure limits and published exposure limits where respirators are not necessary, and the characterization indicates that there are no health hazards or the possibility of an emergency developing, shall receive a minimum of 24 hours of instruction off the site, and the minimum of one day actual field experience under the direct supervision of a trained, experienced supervisor.

1910.120(e)(3)(iv)

Workers with 24 hours of training who are covered by paragraphs (e)(3)(ii) and (e)(3)(iii) of this section, and who become general site workers or who are required to wear respirators, shall have the additional 16

hours and two days of training necessary to total the training specified in paragraph (e)(3)(i).

1910.120(e)(4)

Management and supervisor training. On-site management and supervisors directly responsible for or who supervise employees engaged in hazardous waste operations shall receive 40 hours initial and three days of supervised field experience (the training may be reduced to 24 hours and one day if the only area of their responsibility is employees covered by paragraphs (e)(3)(ii) and (e)(3)(iii) and at least eight additional hours of specialized training at the time of job assignment on such topics as, but no limited to, the employer's safety and health program, personal protective equipment program, spill containment program, and health hazard monitoring procedure and techniques.

1910.120(e)(5)

Qualifications for trainers. Trainers shall be qualified to instruct employees about the subject matter that is being presented in training. Such trainers shall have satisfactorily completed a training program for teaching the subjects they are expected to teach, or they shall have the academic credentials and instructional experience necessary for teaching the subjects. Instructors shall demonstrate competent instructional skills and knowledge of the applicable subject matter.

1910.120(e)(6)

Training certification. Employees and supervisors that have received and successfully completed the training and field experience specified in paragraphs (e)(1) through (e)(4) of this section shall be certified by their instructor or the head instructor and trained supervisor as having completed the necessary training. A written certificate shall be given to each person so certified. Any person who has not been so certified or who does not meet the requirements of paragraph (e)(9) of this section shall be prohibited from engaging in hazardous waste operations.

1910.120(e)(7)

Emergency response. Employees who are engaged in responding to hazardous emergency situations at hazardous waste clean-up sites that may expose them to hazardous substances shall be trained in how to respond to such expected emergencies.

1910.120(e)(8)

Refresher training. Employees specified in paragraph (e)(1) of this section, and managers and supervisors specified in paragraph (e)(4) of this section, shall receive eight hours of refresher training annually on the items specified in paragraph (e)(2) and/or (e)(4) of this section, any critique of incidents that have occurred in the past year that can serve as training examples of related work, and other relevant topics.

1910.120(e)(9)

Equivalent training. Employers who can show by documentation or certification that an employee's work experience and/or training has resulted in training equivalent to that training required in paragraphs (e)(1) through (e)(4) of this section shall not be required to provide the initial training requirements of those paragraphs to such employees and shall provide a copy of the certification or documentation to the employee upon request. However, certified employees or employees with equivalent training new to a site shall receive appropriate, site specific training before site entry and have appropriate supervised field experience at the new site. Equivalent training includes any academic training or the training that existing employees might have already received from actual hazardous waste site experience.

1910.120(f)

Medical surveillance -

1910.120(f)(1)

General. Employees engaged in operations specified in paragraphs (a)(1)(i) through (a)(1)(iv) of this section and not covered by (a)(2)(iii) exceptions and employers of employees specified in paragraph (q)(9) shall institute a medical surveillance program in accordance with this paragraph.

1910.120(f)(2)

Employees covered. The medical surveillance program shall be instituted by the employer for the following employees:

1910.120(f)(2)(i)

All employees who are or may be exposed to hazardous substances or health hazards at or above the established permissible exposure limit, above the published exposure levels for these substances, without regard to the use of respirators, for 30 days or more a year;

1910.120(f)(2)(ii)

All employees who wear a respirator for 30 days or more a year or as required by 1910.134;

1910.120(f)(2)(iii)

All employees who are injured, become ill or develop signs or symptoms due to possible overexposure involving hazardous substances or health hazards from an emergency response or hazardous waste operation; and

1910.120(f)(2)(iv)

Members of HAZMAT teams.

1910.120(f)(3)

Frequency of medical examinations and consultations. Medical examinations and consultations shall be made available by the employer to each employee covered under paragraph (f)(2) of this section on the following schedules:

1910.120(f)(3)(i)

For employees covered under paragraphs (f)(2)(i), (f)(2)(ii), and (f)(2)(iv);

1910.120(f)(3)(i)(A)

Prior to assignment;

1910.120(f)(3)(i)(B)

At least once every twelve months for each employee covered unless the attending physician believes a longer interval (not greater than biennially) is appropriate;

..1910.120(f)(3)(i)(C)

1910.120(f)(3)(i)(C)

At termination of employment or reassignment to an area where the employee would not be covered if the

employee has not had an examination within the last six months.

1910.120(f)(3)(i)(D)

As soon as possible upon notification by an employee that the employee has developed signs or symptoms indicating possible overexposure to hazardous substances or health hazards, or that the employee has been injured or exposed above the permissible exposure limits or published exposure levels in an emergency situation;

1910.120(f)(3)(i)(E)

At more frequent times, if the examining physician determines that an increased frequency of examination is medically necessary.

1910.120(f)(3)(ii)

For employees covered under paragraph (f)(2)(iii) and for all employees including of employers covered by paragraph (a)(1)(iv) who may have been injured, received a health impairment, developed signs or symptoms which may have resulted from exposure to hazardous substances resulting from an emergency incident, or exposed during an emergency incident to hazardous substances at concentrations above the permissible exposure limits or the published exposure levels without the necessary personal protective equipment being used:

1910.120(f)(3)(ii)(A)

As soon as possible following the emergency incident or development of signs or symptoms;

1910.120(f)(3)(ii)(B)

At additional times, if the examining physician determines that follow-up examinations or consultations are medically necessary.

1910.120(f)(4)

Content of medical examinations and consultations.

1910.120(f)(4)(i)

Medical examinations required by paragraph (f)(3) of this section shall include a medical and work history (or updated history if one is in the employee's file) with special emphasis on symptoms related to the handling of hazardous substances and health hazards, and to fitness for duty including the ability to wear any required PPE under conditions (i.e., temperature extremes) that may be expected at the work site.

1910.120(f)(4)(ii)

The content of medical examinations or consultations made available to employees pursuant to paragraph (f) shall be determined by the attending physician. The guidelines in the Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities (See Appendix D, reference # 10) should be consulted.

1910.120(f)(5)

Examination by a physician and costs. All medical examinations and procedures shall be performed by or under the supervision of a licensed physician, preferably one knowledgeable in occupational medicine, and shall be provided without cost to the employee, without loss of pay, and at a reasonable time and place.

1910.120(f)(6)

Information provided to the physician. The employer shall provide one copy of this standard and its appendices to the attending physician and in addition the following for each employee:

1910.120(f)(6)(i)

A description of the employee's duties as they relate to the employee's exposures,

1910.120(f)(6)(ii)

The employee's exposure levels or anticipated exposure levels.

1910.120(f)(6)(iii)

A description of any personal protective equipment used or to be used.

1910.120(f)(6)(iv)

Information from previous medical examinations of the employee which is not readily available to the examining physician.

1910.120(f)(6)(v)

Information required by 1910.134.

1910.120(f)(7)

Physician's written opinion.

1910.120(f)(7)(i)

The employer shall obtain and furnish the employee with a copy of a written opinion from the examining physician containing the following:

1910.120(f)(7)(i)(A)

The physician's opinion as to whether the employee has any detected medical conditions which would place the employee at increased risk of material impairment of the employee's health from work in hazardous waste operations or emergency response, or from respirator use.

..1910.120(f)(7)(i)(B)

1910.120(f)(7)(i)(B)

The physician's recommended limitations upon the employees assigned work.

1910.120(f)(7)(i)(C)

The results of the medical examination and tests if requested by the employee.

1910.120(f)(7)(i)(D)

A statement that the employee has been informed by the physician of the results of the medical examination and any medical conditions which require further examination or treatment.

1910.120(f)(7)(ii)

The written opinion obtained by the employer shall not reveal specific findings or diagnoses unrelated to occupational exposure.

1910.120(f)(8)

Recordkeeping.

1910.120(f)(8)(i)

An accurate record of the medical surveillance required by paragraph (f) of this section shall be retained. This record shall be retained for the period specified and meet the criteria of 29 CFR 1910.20.

1910.120(f)(8)(ii)

The record required in paragraph (f)(8)(i) of this section shall include at least the following information:

1910.120(f)(8)(ii)(A)

The name and social security number of the employee;

1910.120(f)(8)(ii)(B)

Physicians' written opinions, recommended limitations and results of examinations and tests;

1910.120(f)(8)(ii)(C)

Any employee medical complaints related to exposure to hazardous substances;

1910.120(f)(8)(ii)(D)

A copy of the information provided to the examining physician by the employer, with the exception of the standard and its appendices.

1910.120(g)

Engineering controls, work practices, and personal protective equipment for employee protection. Engineering controls, work practices and PPE for substances regulated in Subpart Z. (i) Engineering controls, work practices, personal protective equipment, or a combination of these shall be implemented in accordance with this paragraph to protect employees from exposure to hazardous substances and safety and health hazards.

1910.120(g)(1)

Engineering controls, work practices and PPE for substances regulated in Subparts G and Z.

1910.120(g)(1)(i)

Engineering controls and work practices shall be instituted to reduce and maintain employee exposure to or below the permissible exposure limits for substances regulated by 29 CFR Part 1910, to the extent required by Subpart Z, except to the extent that such controls and practices are not feasible.

NOTE TO (g)(1)(i): Engineering controls which may be feasible include the use of pressurized cabs or control booths on equipment, and/or the use of remotely operated material handling equipment. Work practices which may be feasible are removing all non-essential employees from potential exposure during

opening of drums, wetting down dusty operations and locating employees upwind of possible hazards.

1910.120(g)(1)(ii)

Whenever engineering controls and work practices are not feasible, or not required, any reasonable combination of engineering controls, work practices and PPE shall be used to reduce and maintain to or below the permissible exposure limits or dose limits for substances regulated by 29 CFR Part 1910, Subpart Z.

1910.120(g)(1)(iii)

The employer shall not implement a schedule of employee rotation as a means of compliance with permissible exposure limits or dose limits except when there is no other feasible way of complying with the airborne or dermal dose limits for ionizing radiation.

1910.120(g)(2)

Engineering controls, work practices, and PPE for substances not regulated in Subparts G and Z. An appropriate combination of engineering controls, work practices, and personal protective equipment shall be used to reduce and maintain employee exposure to or below published exposure levels for hazardous substances and health hazards not regulated by 29 CFR Part 1910, Subparts G and Z. The employer may use the published literature and MSDS as a guide in making the employer's determination as to what level of protection the employer believes is appropriate for hazardous substances and health hazards for which there is no permissible exposure limit or published exposure limit.

1910.120(g)(3)

Personal protective equipment selection.

1910.120(g)(3)(i)

Personal protective equipment (PPE) shall be selected and used which will protect employees from the hazards and potential hazards they are likely to encounter as identified during the site characterization and analysis.

..1910.120(g)(3)(ii)

1910.120(g)(3)(ii)

Personal protective equipment selection shall be based on an evaluation of the performance characteristics of the PPE relative to the requirements and limitations of the site, the task-specific conditions and duration, and the hazards and potential hazards identified at the site.

1910.120(g)(3)(iii)

Positive pressure self-contained breathing apparatus, or positive pressure air-line respirators equipped with an escape air supply shall be used when chemical exposure levels present will create a substantial possibility of immediate death, immediate serious illness or injury, or impair the ability to escape.

1910.120(g)(3)(iv)

Totally-encapsulating chemical protective suits (protection equivalent to Level A protection as recommended in Appendix B) shall be used in conditions where skin absorption of a hazardous substance may result in a substantial possibility of immediate death, immediate serious illness or injury, or impair the ability to escape.

1910.120(g)(3)(v)

The level of protection provided by PPE selection shall be increased when additional information or site conditions show that increased protection is necessary to reduce employee exposures below permissible exposure limits and published exposure levels for hazardous substances and health hazards. (See Appendix B for guidance on selecting PPE ensembles.)

NOTE TO (g)(3): The level of employee protection provided may be decreased when additional information or site conditions show that decreased protection will not result in hazardous exposures to employees.

1910.120(g)(3)(vi)

Personal protective equipment shall be selected and used to meet the requirements of 29 CFR Part 1910, Subpart I, and additional requirements specified in this section.

1910.120(g)(4)

Totally-encapsulating chemical protective suits.

1910.120(g)(4)(i)

Totally-encapsulating suits shall protect employees from the particular hazards which are identified during site characterization and analysis.

1910.120(g)(4)(ii)

Totally-encapsulating suits shall be capable of maintaining positive air pressure. (See Appendix A for a test method which may be used to evaluate this requirement.)

1910.120(g)(4)(iii)

Totally-encapsulating suits shall be capable of preventing inward test gas leakage of more than 0.5 percent. (See Appendix A for a test method which may be used to evaluate this requirement.)

1910.120(g)(5)

Personal protective equipment (PPE) program. A personal protective equipment program, which is part of the employer's safety and health program required in paragraph (b) of this section or required in paragraph (p)(1) of this section and which is also a part of the site-specific safety and health plan shall be established. The PPE program shall address the elements listed below. When elements, such as donning and doffing procedures, are provided by the manufacturer of a piece of equipment and are attached to the plan, they need not be rewritten into the plan as long as they adequately address the procedure or element.

1910.120(g)(5)(i)

PPE selection based upon site hazards,

1910.120(g)(5)(ii)

PPE use and limitations of the equipment,

..1910.120(g)(5)(iii)

1910.120(g)(5)(iii)

Work mission duration,

1910.120(g)(5)(iv)

PPE maintenance and storage,

1910.120(g)(5)(v)

PPE decontamination and disposal,

1910.120(g)(5)(vi)

PPE training and proper fitting,

1910.120(g)(5)(vii)

PPE donning and doffing procedures,

1910.120(g)(5)(viii)

PPE inspection procedures prior to, during, and after use,

1910.120(g)(5)(ix)

Evaluation of the effectiveness of the PPE program, and

1910.120(g)(5)(x)

Limitations during temperature extremes, heat stress, and other appropriate medical considerations.

1910.120(h)

Monitoring. -

1910.120(h)(1)

General.

1910.120(h)(1)(i)

Monitoring shall be performed in accordance with this paragraph where there may be a question of employee exposure to hazardous concentrations of hazardous substances in order to assure proper selection of engineering controls, work practices and personal protective equipment so that employees are not exposed to levels which exceed permissible exposure limits, or published exposure levels if there are no permissible exposure limits, for hazardous substances.

1910.120(h)(1)(ii)

Air monitoring shall be used to identify and quantify airborne levels of hazardous substances and safety and health hazards in order to determine the appropriate level of employee protection needed on site.

1910.120(h)(2)

Initial entry. Upon initial entry, representative air monitoring shall be conducted to identify any IDLH condition, exposure over permissible exposure limits or published exposure levels, exposure over a radioactive material's dose limits or other dangerous condition such as the presence of flammable

atmospheres, oxygen-deficient environments.

1910.120(h)(3)

Periodic monitoring. Periodic monitoring shall be conducted when the possibility of an IDLH condition or flammable atmosphere has developed or when there is indication that exposures may have risen over permissible exposure limits or published exposure levels since prior monitoring. Situations where it shall be considered whether the possibility that exposures have risen are as follows:

1910.120(h)(3)(i)

When work begins on a different portion of the site.

1910.120(h)(3)(ii)

When contaminants other than those previously identified are being handled.

..1910.120(h)(3)(iii)

1910.120(h)(3)(iii)

When a different type of operation is initiated (e.g., drum opening as opposed to exploratory well drilling.)

1910.120(h)(3)(iv)

When employees are handling leaking drums or containers or working in areas with obvious liquid contamination (e.g., a spill or lagoon.)

1910.120(h)(4)

Monitoring of high-risk employees. After the actual clean-up phase of any hazardous waste operation commences; for example, when soil, surface water or containers are moved or disturbed; the employer shall monitor those employees likely to have the highest exposures to those hazardous substances and health hazards likely to be present above permissible exposure limits or published exposure levels by using personal sampling frequently enough to characterize employee exposures. The employer may utilize a representative sampling approach by documenting that the employees and chemicals chosen for monitoring are based on the criteria stated in the first sentence of this paragraph. If the employees likely to have the highest exposure are over permissible exposure limits or published exposure limits, then monitoring shall continue to determine all employees likely to be above those limits. The employer may utilize a representative sampling approach by documenting that the employees and chemicals chosen for monitoring are based on the criteria stated above.

NOTE TO (h): It is not required to monitor employees engaged in site characterization operations covered by paragraph (c) of this section.

1910.120(i)

Informational programs. Employers shall develop and implement a program which is part of the employer's safety and health program required in paragraph (b) of this section to inform employees, contractors, and subcontractors (or their representative) actually engaged in hazardous waste operations of the nature, level and degree of exposure likely as a result of participation in such hazardous waste operations. Employees, contractors and subcontractors working outside of the operations part of a site are not covered by this standard.

1910.120(j)

Handling drums and containers -

1910.120(j)(1)

General.

1910.120(j)(1)(i)

Hazardous substances and contaminated, liquids and other residues shall be handled, transported, labeled, and disposed of in accordance with this paragraph.

1910.120(j)(1)(ii)

Drums and containers used during the clean-up shall meet the appropriate DOT, OSHA, and EPA regulations for the wastes that they contain.

1910.120(j)(1)(iii)

When practical, drums and containers shall be inspected and their integrity shall be assured prior to being moved. Drums or containers that cannot be inspected before being moved because of storage conditions (i.e., buried beneath the earth, stacked behind other drums, stacked several tiers high in a pile, etc.) shall be moved to an accessible location and inspected prior to further handling.

1910.120(j)(1)(iv)

Unlabeled drums and containers shall be considered to contain hazardous substances and handled accordingly until the contents are positively identified and labeled.

1910.120(j)(1)(v)

Site operations shall be organized to minimize the amount of drum or container movement.

1910.120(j)(1)(vi)

Prior to movement of drums or containers, all employees exposed to the transfer operation shall be warned of the potential hazards associated with the contents of the drums or containers.

1910.120(j)(1)(vii)

U.S. Department of Transportation specified salvage drums or containers and suitable quantities of proper absorbent shall be kept available and used in areas where spills, leaks, or ruptures may occur.

1910.120(j)(1)(viii)

Where major spills may occur, a spill containment program, which is part of the employer's safety and health program required in paragraph (b) of this section, shall be implemented to contain and isolate the entire volume of the hazardous substance being transferred.

1910.120(j)(1)(ix)

Drums and containers that cannot be moved without rupture, leakage, or spillage shall be emptied into a sound container using a device classified for the material being transferred.

1910.120(j)(1)(x)

A ground-penetrating system or other type of detection system or device shall be used to estimate the

location and depth of buried drums or containers.

1910.120(j)(1)(xi)

Soil or covering material shall be removed with caution to prevent drum or container rupture.

1910.120(j)(1)(xii)

Fire extinguishing equipment meeting the requirements of 29 CFR Part 1910, Subpart L, shall be on hand and ready for use to control incipient fires.

1910.120(j)(2)

Opening drums and containers. The following procedures shall be followed in areas where drums or containers are being opened:

1910.120(j)(2)(i)

Where an airline respirator system is used, connections to the source of air supply shall be protected from contamination and the entire system shall be protected from physical damage.

1910.120(j)(2)(ii)

Employees not actually involved in opening drums or containers shall be kept a safe distance from the drums or containers being opened.

1910.120(j)(2)(iii)

If employees must work near or adjacent to drums or containers being opened, a suitable shield that does not interfere with the work operation shall be placed between the employee and the drums or containers being opened to protect the employee in case of accidental explosion.

1910.120(j)(2)(iv)

Controls for drum or container opening equipment, monitoring equipment, and fire suppression equipment shall be located behind the explosion-resistant barrier.

..1910.120(j)(2)(v)

1910.120(j)(2)(v)

When there is a reasonable possibility of flammable atmospheres being present, material handling equipment and hand tools shall be of the type to prevent sources of ignition.

1910.120(j)(2)(vi)

Drums and containers shall be opened in such a manner that excess interior pressure will be safely relieved. If pressure cannot be relieved from a remote location, appropriate shielding shall be placed between the employee and the drums or containers to reduce the risk of employee injury.

1910.120(j)(2)(vii)

Employees shall not stand upon or work from drums or containers.

1910.120(j)(3)

Material handling equipment. Material handling equipment used to transfer drums and containers shall be selected, positioned and operated to minimize sources of ignition related to the equipment from igniting vapors released from ruptured drums or containers.

1910.120(j)(4)

Radioactive wastes. Drums and containers containing radioactive wastes shall not be handled until such time as their hazard to employees is properly assessed.

1910.120(j)(5)

Shock sensitive wastes. As a minimum, the following special precautions shall be taken when drums and containers containing or suspected of containing shock-sensitive wastes are handled:

1910.120(j)(5)(i)

All non-essential employees shall be evacuated from the area of transfer.

1910.120(j)(5)(ii)

Material handling equipment shall be provided with explosive containment devices or protective shields to protect equipment operators from exploding containers.

1910.120(j)(5)(iii)

An employee alarm system capable of being perceived above surrounding light and noise conditions shall be used to signal the commencement and completion of explosive waste handling activities.

1910.120(j)(5)(iv)

Continuous communications (i.e., portable radios, hand signals, telephones, as appropriate) shall be maintained between the employee-in-charge of the immediate handling area and both the site safety and health supervisor and the command post until such time as the handling operation is completed. Communication equipment or methods that could cause shock sensitive materials to explode shall not be used.

1910.120(j)(5)(v)

Drums and containers under pressure, as evidenced by bulging or swelling, shall not be moved until such time as the cause for excess pressure is determined and appropriate containment procedures have been implemented to protect employees from explosive relief of the drum.

1910.120(j)(5)(vi)

Drums and containers containing packaged laboratory wastes shall be considered to contain shock-sensitive or explosive materials until they have been characterized.

Caution: Shipping of shock sensitive wastes may be prohibited under U.S. Department of Transportation regulations. Employers and their shippers should refer to 49 CFR 173.21 and 173.50.

1910.120(j)(6)

Laboratory waste packs. In addition to the requirements of paragraph (j)(5) of this section, the following precautions shall be taken, as a minimum, in handling laboratory waste packs (lab packs):

1910.120(j)(6)(i)

Lab packs shall be opened only when necessary and then only by an individual knowledgeable in the inspection, classification, and segregation of the containers within the pack according to the hazards of the wastes.

1910.120(j)(6)(ii)

If crystalline material is noted on any container, the contents shall be handled as a shock-sensitive waste until the contents are identified.

1910.120(j)(7)

Sampling of drum and container contents. Sampling of containers and drums shall be done in accordance with a sampling procedure which is part of the site safety and health plan developed for and available to employees and others at the specific worksite.

1910.120(j)(8)

Shipping and transport.

1910.120(j)(8)(i)

Drums and containers shall be identified and classified prior to packaging for shipment.

1910.120(j)(8)(ii)

Drum or container staging areas shall be kept to the minimum number necessary to safely identify and classify materials and prepare them for transport.

1910.120(j)(8)(iii)

Staging areas shall be provided with adequate access and egress routes.

1910.120(j)(8)(iv)

Bulking of hazardous wastes shall be permitted only after a thorough characterization of the materials has been completed.

1910.120(j)(9)

Tank and vault procedures.

1910.120(j)(9)(i)

Tanks and vaults containing hazardous substances shall be handled in a manner similar to that for drums and containers, taking into consideration the size of the tank or vault.

1910.120(j)(9)(ii)

Appropriate tank or vault entry procedures as described in the employer's safety and health plan shall be followed whenever employees must enter a tank or vault.

1910.120(k)

Decontamination -

1910.120(k)(1)

General. Procedures for all phases of decontamination shall be developed and implemented in accordance with this paragraph.

..1910.120(k)(2)

1910.120(k)(2)

Decontamination procedures.

1910.120(k)(2)(i)

A decontamination procedure shall be developed, communicated to employees and implemented before any employees or equipment may enter areas on site where potential for exposure to hazardous substances exists.

1910.120(k)(2)(ii)

Standard operating procedures shall be developed to minimize employee contact with hazardous substances or with equipment that has contacted hazardous substances.

1910.120(k)(2)(iii)

All employees leaving a contaminated area shall be appropriately decontaminated; all contaminated clothing and equipment leaving a contaminated area shall be appropriately disposed of or decontaminated.

1910.120(k)(2)(iv)

Decontamination procedures shall be monitored by the site safety and health supervisor to determine their effectiveness. When such procedures are found to be ineffective, appropriate steps shall be taken to correct any deficiencies.

1910.120(k)(3)

Location. Decontamination shall be performed in geographical areas that will minimize the exposure of uncontaminated employees or equipment to contaminated employees or equipment.

1910.120(k)(4)

Equipment and solvents. All equipment and solvents used for decontamination shall be decontaminated or disposed of properly.

1910.120(k)(5)

Personal protective clothing and equipment.

1910.120(k)(5)(i)

Protective clothing and equipment shall be decontaminated, cleaned, laundered, maintained or replaced as needed to maintain their effectiveness.

1910.120(k)(5)(ii)

Employees whose non-impermeable clothing becomes wetted with hazardous substances shall immediately remove that clothing and proceed to shower. The clothing shall be disposed of or

decontaminated before it is removed from the work zone.

1910.120(k)(6)

Unauthorized employees shall not remove protective clothing or equipment from change rooms.

1910.120(k)(7)

Commercial laundries or cleaning establishments. Commercial laundries or cleaning establishments that decontaminate protective clothing or equipment shall be informed of the potentially harmful effects of exposures to hazardous substances.

1910.120(k)(8)

Showers and change rooms. Where the decontamination procedure indicates a need for regular showers and change rooms outside of a contaminated area, they shall be provided and meet the requirements of 29 CFR 1910.141. If temperature conditions prevent the effective use of water, then other effective means for cleansing shall be provided and used.

1910.120(l)

Emergency response by employees at uncontrolled hazardous waste sites -

1910.120(l)(1)

Emergency response plan.

1910.120(l)(1)(i)

An emergency response plan shall be developed and implemented by all employers within the scope of paragraphs (a)(1)(i) through (ii) of this section to handle anticipated emergencies prior to the commencement of hazardous waste operations. The plan shall be in writing and available for inspection and copying by employees, their representatives, OSHA personnel and other governmental agencies with relevant responsibilities.

1910.120(l)(1)(ii)

Employers who will evacuate their employees from the danger area when an emergency occurs, and who do not permit any of their employees to assist in handling the emergency, are exempt from the requirements of this paragraph if they provide an emergency action plan complying with section 1910.38(a) of this part.

1910.120(l)(2)

Elements of an emergency response plan. The employer shall develop an emergency response plan for emergencies which shall address, as a minimum, the following:

1910.120(l)(2)(i)

Pre-emergency planning.

1910.120(l)(2)(ii)

Personnel roles, lines of authority, training, and communication.

1910.120(l)(2)(iii)

Emergency recognition and prevention.

1910.120(I)(2)(iv)

Safe distances and places of refuge.

1910.120(I)(2)(v)

Site security and control.

1910.120(I)(2)(vi)

Evacuation routes and procedures.

..1910.120(I)(2)(vii)

1910.120(I)(2)(vii)

Decontamination procedures which are not covered by the site safety and health plan.

1910.120(I)(2)(viii)

Emergency medical treatment and first aid.

1910.120(I)(2)(ix)

Emergency alerting and response procedures.

1910.120(I)(2)(x)

Critique of response and follow-up.

1910.120(I)(2)(xi)

PPE and emergency equipment.

1910.120(I)(3)

Procedures for handling emergency incidents.

1910.120(I)(3)(i)

In addition to the elements for the emergency response plan required in paragraph (I)(2) of this section, the following elements shall be included for emergency response plans:

1910.120(I)(3)(i)(A)

Site topography, layout, and prevailing weather conditions.

1910.120(I)(3)(i)(B)

Procedures for reporting incidents to local, state, and federal governmental agencies.

1910.120(I)(3)(ii)

The emergency response plan shall be a separate section of the Site Safety and Health Plan.

..1910.120(l)(3)(iii)

1910.120(l)(3)(iii)

The emergency response plan shall be compatible and integrated with the disaster, fire and/or emergency response plans of local, state, and federal agencies.

1910.120(l)(3)(iv)

The emergency response plan shall be rehearsed regularly as part of the overall training program for site operations.

1910.120(l)(3)(v)

The site emergency response plan shall be reviewed periodically and, as necessary, be amended to keep it current with new or changing site conditions or information.

1910.120(l)(3)(vi)

An employee alarm system shall be installed in accordance with 29 CFR 1910.165 to notify employees of an emergency situation, to stop work activities if necessary, to lower background noise in order to speed communication, and to begin emergency procedures.

1910.120(l)(3)(vii)

Based upon the information available at time of the emergency, the employer shall evaluate the incident and the site response capabilities and proceed with the appropriate steps to implement the site emergency response plan.

1910.120(m)

Illumination. Areas accessible to employees shall be lighted to not less than the minimum illumination intensities listed in the following Table H-120.1 while any work is in progress:

TABLE H-120.1. - MINIMUM ILLUMINATION INTENSITIES IN FOOT-CANDLES

Foot-candles	Area or operations
5	General site areas.
3	Excavation and waste areas, accessways, active storage areas, loading platforms, refueling, and field maintenance areas.
5	Indoors: warehouses, corridors, hallways, and exitways.
5	Tunnels, shafts, and general underground work areas; (Exception: minimum of 10 foot-candles is required at tunnel and shaft heading during drilling, mucking, and scaling. Mine Safety and Health Administration approved cap lights shall be acceptable for use in the tunnel heading.
10	General shops (e.g., mechanical and electrical equipment rooms, active storerooms, barracks or living quarters, locker or dressing rooms, dining areas, and indoor toilets and workrooms.
30	First aid stations, infirmaries, and offices.

1910.120(n)

Sanitation at temporary workplaces -

1910.120(n)(1)

Potable water.

1910.120(n)(1)(i)

An adequate supply of potable water shall be provided on the site.

1910.120(n)(1)(ii)

Portable containers used to dispense drinking water shall be capable of being tightly closed, and equipped with a tap. Water shall not be dipped from containers.

1910.120(n)(1)(iii)

Any container used to distribute drinking water shall be clearly marked as to the nature of its contents and not used for any other purpose.

1910.120(n)(1)(iv)

Where single service cups (to be used but once) are supplied, both a sanitary container for the unused cups and a receptacle for disposing of the used cups shall be provided.

1910.120(n)(2)

Nonpotable water.

1910.120(n)(2)(i)

Outlets for nonpotable water, such as water for firefighting purposes shall be identified to indicate clearly that the water is unsafe and is not to be used for drinking, washing, or cooking purposes.

1910.120(n)(2)(ii)

There shall be no cross-connection, open or potential, between a system furnishing potable water and a system furnishing nonpotable water.

..1910.120(n)(3)

1910.120(n)(3)

Toilets facilities.

1910.120(n)(3)(i)

Toilets shall be provided for employees according to Table H-120.2.

TABLE H-120.2. - TOILET FACILITIES

Number of employees	Minimum number of facilities
20 or fewer	One.

More than 20, fewer than 200	One toilet seat and 1 urinal per 40 employees.
More than 200	One toilet seat and 1 urinal per 50 employees.

1910.120(n)(3)(ii)

Under temporary field conditions, provisions shall be made to assure not less than one toilet facility is available.

1910.120(n)(3)(iii)

Hazardous waste sites, not provided with a sanitary sewer, shall be provided with the following toilet facilities unless prohibited by local codes:

1910.120(n)(3)(iii)(A)

Chemical toilets;

1910.120(n)(3)(iii)(B)

Recirculating toilets;

1910.120(n)(3)(iii)(C)

Combustion toilets; or

1910.120(n)(3)(iii)(D)

Flush toilets.

1910.120(n)(3)(iv)

The requirements of this paragraph for sanitation facilities shall not apply to mobile crews having transportation readily available to nearby toilet facilities.

1910.120(n)(3)(v)

Doors entering toilet facilities shall be provided with entrance locks controlled from inside the facility.

..1910.120(n)(4)

1910.120(n)(4)

Food handling. All food service facilities and operations for employees shall meet the applicable laws, ordinances, and regulations of the jurisdictions in which they are located.

1910.120(n)(5)

Temporary sleeping quarters. When temporary sleeping quarters are provided, they shall be heated, ventilated, and lighted.

1910.120(n)(6)

Washing facilities. The employer shall provide adequate washing facilities for employees engaged in

operations where hazardous substances may be harmful to employees. Such facilities shall be in near proximity to the worksite; in areas where exposures are below permissible exposure limits and which are under the controls of the employer; and shall be so equipped as to enable employees to remove hazardous substances from themselves.

1910.120(n)(7)

Showers and change rooms. When hazardous waste clean-up or removal operations commence on a site and the duration of the work will require six months or greater time to complete, the employer shall provide showers and change rooms for all employees exposed to hazardous substances and health hazards involved in hazardous waste clean-up or removal operations.

1910.120(n)(7)(i)

Showers shall be provided and shall meet the requirements of 29 CFR 1910.141(d)(3).

..1910.120(n)(7)(ii)

1910.120(n)(7)(ii)

Change rooms shall be provided and shall meet the requirements of 29 CFR 1910.141(e). Change rooms shall consist of two separate change areas separated by the shower area required in paragraph (n)(7)(i) of this section. One change area, with an exit leading off the worksite, shall provide employees with an area where they can put on, remove and store work clothing and personal protective equipment.

1910.120(n)(7)(iii)

Showers and change rooms shall be located in areas where exposures are below the permissible exposure limits and published exposure levels. If this cannot be accomplished, then a ventilation system shall be provided that will supply air that is below the permissible exposure limits and published exposure levels.

1910.120(n)(7)(iv)

Employers shall assure that employees shower at the end of their work shift and when leaving the hazardous waste site.

1910.120(o)

New technology programs.

1910.120(o)(1)

The employer shall develop and implement procedures for the introduction of effective new technologies and equipment developed for the improved protection of employees working with hazardous waste clean-up operations, and the same shall be implemented as part of the site safety and health program to assure that employee protection is being maintained.

1910.120(o)(2)

New technologies, equipment or control measures available to the industry, such as the use of foams, absorbents, absorbents, neutralizers, or other means to suppress the level of air contaminants while excavating the site or for spill control, shall be evaluated by employers or their representatives. Such an evaluation shall be done to determine the effectiveness of the new methods, materials, or equipment before implementing their use on a large scale for enhancing employee protection. Information and data from manufacturers or suppliers may be used as part of the employer's evaluation effort. Such evaluations shall be made available to OSHA upon request.

1910.120(p)

Certain Operations Conducted Under the Resource Conservation and Recovery Act of 1976 (RCRA). Employers conducting operations at treatment, storage and disposal (TSD) facilities specified in paragraph (a)(1)(iv) of this section shall provide and implement the programs specified in this paragraph. See the "Notes and Exceptions" to paragraph (a)(2)(iii) of this section for employers not covered.

1910.120(p)(1)

Safety and health program. The employer shall develop and implement a written safety and health program for employees involved in hazardous waste operations that shall be available for inspection by employees, their representatives and OSHA personnel. The program shall be designed to identify, evaluate and control safety and health hazards in their facilities for the purpose of employee protection, to provide for emergency response meeting the requirements of paragraph (p)(8) of this section and to address as appropriate site analysis, engineering controls, maximum exposure limits, hazardous waste handling procedures and uses of new technologies.

1910.120(p)(2)

Hazard communication program. The employer shall implement a hazard communication program meeting the requirements of 29 CFR 1910.1200 as part of the employer's safety and program.

NOTE TO 1910.120 - The exemption for hazardous waste provided in 1910.1200 is applicable to this section.

..1910.120(p)(3)

1910.120(p)(3)

Medical surveillance program. The employer shall develop and implement a medical surveillance program meeting the requirements of paragraph (f) of this section.

1910.120(p)(4)

Decontamination program. The employer shall develop and implement a decontamination procedure meeting the requirements of paragraph (k) of this section.

1910.120(p)(5)

New technology program. The employer shall develop and implement procedures meeting the requirements of paragraph (o) of this section for introducing new and innovative equipment into the workplace.

1910.120(p)(6)

Material handling program. Where employees will be handling drums or containers, the employer shall develop and implement procedures meeting the requirements of paragraphs (j)(1)(ii) through (viii) and (xi) of this section, as well as (j)(3) and (j)(8) of this section prior to starting such work.

..1910.120(p)(7)

1910.120(p)(7)

Training program -

1910.120(p)(7)(i)

New employees. The employer shall develop and implement a training program which is part of the employer's safety and health program, for employees exposed to health hazards or hazardous substances at TSD operations to enable the employees to perform their assigned duties and functions in a safe and healthful manner so as not to endanger themselves or other employees. The initial training shall be for 24 hours and refresher training shall be for eight hours annually. Employees who have received the initial training required by this paragraph shall be given a written certificate attesting that they have successfully completed the necessary training.

1910.120(p)(7)(ii)

Current employees. Employers who can show by an employee's previous work experience and/or training that the employee has had training equivalent to the initial training required by this paragraph, shall be considered as meeting the initial training requirements of this paragraph as to that employee. Equivalent training includes the training that existing employees might have already received from actual site work experience. Current employees shall receive eight hours of refresher training annually.

1910.120(p)(7)(iii)

Trainers. Trainers who teach initial training shall have satisfactorily completed a training course for teaching the subjects they are expected to teach or they shall have the academic credentials and instruction experience necessary to demonstrate a good command of the subject matter of the courses and competent instructional skills.

..1910.120(p)(8)

1910.120(p)(8)

Emergency response program -

1910.120(p)(8)(i)

Emergency response plan. An emergency response plan shall be developed and implemented by all employers. Such plans need not duplicate any of the subjects fully addressed in the employer's contingency planning required by permits, such as those issued by the U.S. Environmental Protection Agency, provided that the contingency plan is made part of the emergency response plan. The emergency response plan shall be a written portion of the employers safety and health program required in paragraph (p)(1) of this section. Employers who will evacuate their employees from the worksite location when an emergency occurs, and who do not permit any of their employees to assist in handling the emergency, are exempt from the requirements of paragraph (p)(8) if they provide an emergency action plan complying with section 1910.38(a) of this part.

1910.120(p)(8)(ii)

Elements of an emergency response plan. The employer shall develop an emergency response plan for emergencies which shall address, as a minimum, the following areas to the extent that they are not addressed in any specific program required in this paragraph:

1910.120(p)(8)(ii)(A)

Pre-emergency planning and coordination with outside parties.

1910.120(p)(8)(ii)(B)

Personnel roles, lines of authority, training, and communication.

1910.120(p)(8)(ii)(C)

Emergency recognition and prevention.

1910.120(p)(8)(ii)(D)

Safe distances and places of refuge.

1910.120(p)(8)(ii)(E)

Site security and control.

1910.120(p)(8)(ii)(F)

Evacuation routes and procedures.

1910.120(p)(8)(ii)(G)

Decontamination procedures.

1910.120(p)(8)(ii)(H)

Emergency medical treatment and first aid.

1910.120(p)(8)(ii)(I)

Emergency alerting and response procedures.

..1910.120(p)(8)(ii)(J)

1910.120(p)(8)(ii)(J)

Critique of response and follow-up.

1910.120(p)(8)(ii)(K)

PPE and emergency equipment.

1910.120(p)(8)(iii)

Training.

1910.120(p)(8)(iii)(A)

Training for emergency response employees shall be completed before they are called upon to perform in real emergencies. Such training shall include the elements of the emergency response plan, standard operating procedures the employer has established for the job, the personal protective equipment to be worn and procedures for handling emergency incidents.

Exception #1: an employer need not train all employees to the degree specified if the employer divides the work force in a manner such that a sufficient number of employees who have responsibility to control emergencies have the training specified, and all other employees, who may first respond to an emergency incident, have sufficient awareness training to recognize that an emergency response situation exists and that they are instructed in that case to summon the fully trained employees and not attempt control activities for which they are not trained.

Exception #2: An employer need not train all employees to the degree specified if arrangements have been made in advance for an outside fully-trained emergency response team to respond in a reasonable period and all employees, who may come to the incident first, have sufficient awareness training to recognize that an emergency response situation exists and they have been instructed to call the designated outside fully-trained emergency response team for assistance.

1910.120(p)(8)(iii)(B)

Employee members of TSD facility emergency response organizations shall be trained to a level of competence in the recognition of health and safety hazards to protect themselves and other employees. This would include training in the methods used to minimize the risk from safety and health hazards; in the safe use of control equipment; in the selection and use of appropriate personal protective equipment; in the safe operating procedures to be used at the incident scene; in the techniques of coordination with other employees to minimize risks; in the appropriate response to over exposure from health hazards or injury to themselves and other employees; and in the recognition of subsequent symptoms which may result from over exposures.

1910.120(p)(8)(iii)(C)

The employer shall certify that each covered employee has attended and successfully completed the training required in paragraph (p)(8)(iii) of this section, or shall certify the employee's competency for certification of training shall be recorded and maintained by the employer.

1910.120(p)(8)(iv)

Procedures for handling emergency incidents.

1910.120(p)(8)(iv)(A)

In addition to the elements for the emergency response plan required in paragraph (p)(8)(ii) of this section, the following elements shall be included for emergency response plans to the extent that they do not repeat any information already contained in the emergency response plan:

1910.120(p)(8)(iv)(A)(1)

Site topography, layout, and prevailing weather conditions.

1910.120(p)(8)(iv)(A)(2)

Procedures for reporting incidents to local, state, and federal governmental agencies.

1910.120(p)(8)(iv)(B)

The emergency response plan shall be compatible and integrated with the disaster, fire and/or emergency response plans of local, state, and federal agencies.

1910.120(p)(8)(iv)(C)

The emergency response plan shall be rehearsed regularly as part of the overall training program for site operations.

1910.120(p)(8)(iv)(D)

The site emergency response plan shall be reviewed periodically and, as necessary, be amended to keep it current with new or changing site conditions or information.

..1910.120(p)(8)(iv)(E)

1910.120(p)(8)(iv)(E)

An employee alarm system shall be installed in accordance with 29 CFR 1910.165 to notify employees of an emergency situation, to stop work activities if necessary, to lower background noise in order to speed communication; and to begin emergency procedures.

1910.120(p)(8)(iv)(F)

Based upon the information available at time of the emergency, the employer shall evaluate the incident and the site response capabilities and proceed with the appropriate steps to implement the site emergency response plan.

1910.120(q)

Emergency response program to hazardous substance releases. This paragraph covers employers whose employees are engaged in emergency response no matter where it occurs except that it does not cover employees engaged in operations specified in paragraphs (a)(1)(i) through (a)(1)(iv) of this section. Those emergency response organizations who have developed and implemented programs equivalent to this paragraph for handling releases of hazardous substances pursuant to section 303 of the Superfund Amendments and Reauthorization Act of 1986 (Emergency Planning and Community Right-to-Know Act of 1986, 42 U.S.C. 11003) shall be deemed to have met the requirements of this paragraph.

1910.120(q)(1)

Emergency response plan. An emergency response plan shall be developed and implemented to handle anticipated emergencies prior to the commencement of emergency response operations. The plan shall be in writing and available for inspection and copying by employees, their representatives, OSHA personnel. Employers who will evacuate their employees from the danger area when an emergency occurs, and who do not permit any of their employees to assist in handling the emergency, are exempt from the requirements of this paragraph if they provide an emergency action plan complying with section 1910.38(a) of this part.

1910.120(q)(2)

Elements of an emergency response plan. The employer shall develop an emergency response plan for emergencies which shall address, as a minimum, the following areas to the extent that they are not addressed in any specific program required in this paragraph:

1910.120(q)(2)(i)

Pre-emergency planning and coordination with outside parties..

1910.120(q)(2)(ii)

Personnel roles, lines of authority, training, and communication.

1910.120(q)(2)(iii)

Emergency recognition and prevention.

1910.120(q)(2)(iv)

Safe distances and places of refuge.

1910.120(q)(2)(v)

Site security and control.

1910.120(q)(2)(vi)

Evacuation routes and procedures.

1910.120(q)(2)(vii)

Decontamination.

1910.120(q)(2)(viii)

Emergency medical treatment and first aid.

1910.120(q)(2)(ix)

Emergency alerting and response procedures.

..1910.120(q)(2)(x)

1910.120(q)(2)(x)

Critique of response and follow-up.

1910.120(q)(2)(xi)

PPE and emergency equipment.

1910.120(q)(2)(xii)

Emergency response organizations may use the local emergency response plan or the state emergency response plan or both, as part of their emergency response plan to avoid duplication. Those items of the emergency response plan that are being properly addressed by the SARA Title III plans may be substituted into their emergency plan or otherwise kept together for the employer and employee's use.

1910.120(q)(3)

Procedures for handling emergency response.

1910.120(q)(3)(i)

The senior emergency response official responding to an emergency shall become the individual in charge of a site-specific Incident Command System (ICS). All emergency responders and their communications shall be coordinated and controlled through the individual in charge of the ICS assisted by the senior official present for each employer.

NOTE TO (q)(3)(i). - The "senior official" at an emergency response is the most senior official on the site who has the responsibility for controlling the operations at the site. Initially it is the senior officer on the first-due piece of responding emergency apparatus to arrive on the incident scene. As more senior officers arrive (i.e. , battalion chief, fire chief, state law enforcement official, site coordinator, etc.) the position is passed up the line of authority which has been previously established.

1910.120(q)(3)(ii)

The individual in charge of the ICS shall identify, to the extent possible, all hazardous substances or conditions present and shall address as appropriate site analysis, use of engineering controls, maximum exposure limits, hazardous substance handling procedures, and use of any new technologies.

..1910.120(q)(3)(iii)

1910.120(q)(3)(iii)

Based on the hazardous substances and/or conditions present, the individual in charge of the ICS shall implement appropriate emergency operations, and assure that the personal protective equipment worn is appropriate for the hazards to be encountered. However, personal protective equipment shall meet, at a minimum, the criteria contained in 29 CFR 1910.156(e) when worn while performing fire fighting operations beyond the incipient stage for any incident.

1910.120(q)(3)(iv)

Employees engaged in emergency response and exposed to hazardous substances presenting an inhalation hazard or potential inhalation hazard shall wear positive pressure self-contained breathing apparatus while engaged in emergency response, until such time that the individual in charge of the ICS determines through the use of air monitoring that a decreased level of respiratory protection will not result in hazardous exposures to employees.

1910.120(q)(3)(v)

The individual in charge of the ICS shall limit the number of emergency response personnel at the emergency site, in those areas of potential or actual exposure to incident or site hazards, to those who are actively performing emergency operations. However, operations in hazardous areas shall be performed using the buddy system in groups of two or more.

1910.120(q)(3)(vi)

Back-up personnel shall be standing by with equipment ready to provide assistance or rescue. Qualified basic life support personnel, as a minimum, shall also be standing by with medical equipment and transportation capability.

1910.120(q)(3)(vii)

The individual in charge of the ICS shall designate a safety officer, who is knowledgeable in the operations being implemented at the emergency response site, with specific responsibility to identify and evaluate hazards and to provide direction with respect to the safety of operations for the emergency at hand.

1910.120(q)(3)(viii)

When activities are judged by the safety officer to be an IDLH and/or to involve an imminent danger condition, the safety officer shall have the authority to alter, suspend, or terminate those activities. The safety official shall immediately inform the individual in charge of the ICS of any actions needed to be taken to correct these hazards at the emergency scene.

1910.120(q)(3)(ix)

After emergency operations have terminated, the individual in charge of the ICS shall implement appropriate decontamination procedures.

1910.120(q)(3)(x)

When deemed necessary for meeting the tasks at hand, approved self-contained compressed air breathing apparatus may be used with approved cylinders from other approved self-contained compressed air breathing apparatus provided that such cylinders are of the same capacity and pressure rating. All compressed air cylinders used with self-contained breathing apparatus shall meet U.S. Department of Transportation and National Institute for Occupational Safety and Health criteria.

1910.120(q)(4)

Skilled support personnel. Personnel, not necessarily an employer's own employees, who are skilled in the operation of certain equipment, such as mechanized earth moving or digging equipment or crane and hoisting equipment, and who are needed temporarily to perform immediate emergency support work that cannot reasonably be performed in a timely fashion by an employer's own employees, and who will be or may be exposed to the hazards at an emergency response scene, are not required to meet the training required in this paragraph for the employer's regular employees. However, these personnel shall be given an initial briefing at the site prior to their participation in any emergency response. The initial briefing shall include instruction in the wearing of appropriate personal protective equipment, what chemical hazards are involved, and what duties are to be performed. All other appropriate safety and health precautions provided to the employer's own employees shall be used to assure the safety and health of these personnel.

1910.120(q)(5)

Specialist employees. Employees who, in the course of their regular job duties, work with and are trained in the hazards of specific hazardous substances, and who will be called upon to provide technical advice or assistance at a hazardous substance release incident to the individual in charge, shall receive training or demonstrate competency in the area of their specialization annually.

1910.120(q)(6)

Training. Training shall be based on the duties and function to be performed by each responder of an emergency response organization. The skill and knowledge levels required for all new responders, those hired after the effective date of this standard, shall be conveyed to them through training before they are permitted to take part in actual emergency operations on an incident. Employees who participate, or are expected to participate, in emergency response, shall be given training in accordance with the following paragraphs:

1910.120(q)(6)(i)

First responder awareness level. First responders at the awareness level are individuals who are likely to witness or discover a hazardous substance release and who have been trained to initiate an emergency response sequence by notifying the proper authorities of the release. They would take no further action beyond notifying the authorities of the release. First responders at the awareness level shall have sufficient training or have had sufficient experience to objectively demonstrate competency in the following areas:

..1910.120(q)(6)(i)(A)

1910.120(q)(6)(i)(A)

An understanding of what hazardous substances are, and the risks associated with them in an incident.

1910.120(q)(6)(i)(B)

An understanding of the potential outcomes associated with an emergency created when hazardous substances are present.

1910.120(q)(6)(i)(C)

The ability to recognize the presence of hazardous substances in an emergency.

1910.120(q)(6)(i)(D)

The ability to identify the hazardous substances, if possible.

1910.120(q)(6)(i)(E)

An understanding of the role of the first responder awareness individual in the employer's emergency response plan including site security and control and the U.S. Department of Transportation's Emergency Response Guidebook.

1910.120(q)(6)(i)(F)

The ability to realize the need for additional resources, and to make appropriate notifications to the communication center.

1910.120(q)(6)(ii)

First responder operations level. First responders at the operations level are individuals who respond to releases or potential releases of hazardous substances as part of the initial response to the site for the purpose of protecting nearby persons, property, or the environment from the effects of the release. They are trained to respond in a defensive fashion without actually trying to stop the release. Their function is to contain the release from a safe distance, keep it from spreading, and prevent exposures. First responders at the operational level shall have received at least eight hours of training or have had sufficient experience to objectively demonstrate competency in the following areas in addition to those listed for the awareness level and the employer shall so certify:

1910.120(q)(6)(ii)(A)

Knowledge of the basic hazard and risk assessment techniques.

1910.120(q)(6)(ii)(B)

Know how to select and use proper personal protective equipment provided to the first responder operational level.

1910.120(q)(6)(ii)(C)

An understanding of basic hazardous materials terms.

1910.120(q)(6)(ii)(D)

Know how to perform basic control, containment and/or confinement operations within the capabilities of the resources and personal protective equipment available with their unit.

1910.120(q)(6)(ii)(E)

Know how to implement basic decontamination procedures.

1910.120(q)(6)(ii)(F)

An understanding of the relevant standard operating procedures and termination procedures.

..1910.120(q)(6)(iii)

1910.120(q)(6)(iii)

Hazardous materials technician. Hazardous materials technicians are individuals who respond to releases or potential releases for the purpose of stopping the release. They assume a more aggressive role than a first responder at the operations level in that they will approach the point of release in order to plug, patch or otherwise stop the release of a hazardous substance. Hazardous materials technicians shall have received at least 24 hours of training equal to the first responder operations level and in addition have competency in the following areas and the employer shall so certify:

1910.120(q)(6)(iii)(A)

Know how to implement the employer's emergency response plan.

1910.120(q)(6)(iii)(B)

Know the classification, identification and verification of known and unknown materials by using field survey instruments and equipment.

1910.120(q)(6)(iii)(C)

Be able to function within an assigned role in the Incident Command System.

1910.120(q)(6)(iii)(D)

Know how to select and use proper specialized chemical personal protective equipment provided to the hazardous materials technician.

1910.120(q)(6)(iii)(E)

Understand hazard and risk assessment techniques.

1910.120(q)(6)(iii)(F)

Be able to perform advance control, containment, and/or confinement operations within the capabilities of the resources and personal protective equipment available with the unit.

1910.120(q)(6)(iii)(G)

Understand and implement decontamination procedures.

1910.120(q)(6)(iii)(H)

Understand termination procedures.

1910.120(q)(6)(iii)(I)

Understand basic chemical and toxicological terminology and behavior.

1910.120(q)(6)(iv)

Hazardous materials specialist. Hazardous materials specialists are individuals who respond with and provide support to hazardous materials technicians. Their duties parallel those of the hazardous materials technician, however, those duties require a more directed or specific knowledge of the various substances they may be called upon to contain. The hazardous materials specialist would also act as the site liaison with Federal, state, local and other government authorities in regards to site activities. Hazardous materials

specialists shall have received at least 24 hours of training equal to the technician level and in addition have competency in the following areas and the employer shall so certify:

1910.120(q)(6)(iv)(A)

Know how to implement the local emergency response plan.

1910.120(q)(6)(iv)(B)

Understand classification, identification and verification of known and unknown materials by using advanced survey instruments and equipment.

1910.120(q)(6)(iv)(C)

Know the state emergency response plan.

1910.120(q)(6)(iv)(D)

Be able to select and use proper specialized chemical personal protective equipment provided to the hazardous materials specialist.

1910.120(q)(6)(iv)(E)

Understand in-depth hazard and risk techniques.

1910.120(q)(6)(iv)(F)

Be able to perform specialized control, containment, and/or confinement operations within the capabilities of the resources and personal protective equipment available.

1910.120(q)(6)(iv)(G)

Be able to determine and implement decontamination procedures.

1910.120(q)(6)(iv)(H)

Have the ability to develop a site safety and control plan.

1910.120(q)(6)(iv)(I)

Understand chemical, radiological and toxicological terminology and behavior.

1910.120(q)(6)(v)

On scene incident commander. Incident commanders, who will assume control of the incident scene beyond the first responder awareness level, shall receive at least 24 hours of training equal to the first responder operations level and in addition have competency in the following areas and the employer shall so certify:

1910.120(q)(6)(v)(A)

Know and be able to implement the employer's incident command system.

1910.120(q)(6)(v)(B)

Know how to implement the employer's emergency response plan.

1910.120(q)(6)(v)(C)

Know and understand the hazards and risks associated with employees working in chemical protective clothing.

1910.120(q)(6)(v)(D)

Know how to implement the local emergency response plan.

..1910.120(q)(6)(v)(E)

1910.120(q)(6)(v)(E)

Know of the state emergency response plan and of the Federal Regional Response Team.

1910.120(q)(6)(v)(F)

Know and understand the importance of decontamination procedures.

1910.120(q)(7)

Trainers. Trainers who teach any of the above training subjects shall have satisfactorily completed a training course for teaching the subjects they are expected to teach, such as the courses offered by the U.S. National Fire Academy, or they shall have the training and/or academic credentials and instructional experience necessary to demonstrate competent instructional skills and a good command of the subject matter of the courses they are to teach.

1910.120(q)(8)

Refresher training.

1910.120(q)(8)(i)

Those employees who are trained in accordance with paragraph (q)(6) of this section shall receive annual refresher training of sufficient content and duration to maintain their competencies, or shall demonstrate competency in those areas at least yearly.

1910.120(q)(8)(ii)

A statement shall be made of the training or competency, and if a statement of competency is made, the employer shall keep a record of the methodology used to demonstrate competency.

1910.120(q)(9)

Medical surveillance and consultation.

1910.120(q)(9)(i)

Members of an organized and designated HAZMAT team and hazardous materials specialist shall receive a baseline physical examination and be provided with medical surveillance as required in paragraph (f) of this section.

1910.120(q)(9)(ii)

Any emergency response employees who exhibit signs or symptoms which may have resulted from

exposure to hazardous substances during the course of an emergency incident either immediately or subsequently, shall be provided with medical consultation as required in paragraph (f)(3)(ii) of this section.

1910.120(q)(10)

Chemical protective clothing. Chemical protective clothing and equipment to be used by organized and designated HAZMAT team members, or to be used by hazardous materials specialists, shall meet the requirements of paragraphs (g)(3) through (5) of this section.

1910.120(q)(11)

Post-emergency response operations. Upon completion of the emergency response, if it is determined that it is necessary to remove hazardous substances, health hazards and materials contaminated with them (such as contaminated soil or other elements of the natural environment) from the site of the incident, the employer conducting the clean-up shall comply with one of the following:

1910.120(q)(11)(i)

Meet all the requirements of paragraphs (b) through (o) of this section; or

..1910.120(q)(11)(ii)

1910.120(q)(11)(ii)


Where the clean-up is done on plant property using plant or workplace employees, such employees shall have completed the training requirements of the following: 29 CFR 1910.38(a); 1910.134; 1910.1200, and other appropriate safety and health training made necessary by the tasks that they are expected to be performed such as personal protective equipment and decontamination procedures. All equipment to be used in the performance of the clean-up work shall be in serviceable condition and shall have been inspected prior to use.

APPENDICES TO 1910.120 - HAZARDOUS WASTE OPERATIONS AND EMERGENCY RESPONSE

NOTE: The following appendices serve as non-mandatory guidelines to assist employees and employers in complying with the appropriate requirements of this section. However paragraph 1910.120(g) makes mandatory in certain circumstances the use of Level A and Level B PPE protection.

[61 FR 9227, March 7, 1996]

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OSHA Regulations (Standards - 29 CFR)
Compliance guidelines. - 1910.120 App C

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- **Standard Number:** 1910.120 App C
 - **Standard Title:** Compliance guidelines.
 - **SubPart Number:** H
 - **SubPart Title:** Hazardous Materials
-
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1. Occupational Safety and Health Program. Each hazardous waste site clean-up effort will require a site specific occupational safety and health program headed by the site coordinator or the employer's representative. The purpose of the program will be the protection of employees at the site and will be an extension of the employer's overall safety and health program work. The program will need to be developed before work begins on the site and implemented as work proceeds as stated in paragraph (b). The program is to facilitate coordination and communication of safety and health issues among personnel responsible for the various activities which will take place at the site. It will provide the overall means for planning and implementing the needed safety and health training and job orientation of employees who will be working at the site. The program will provide the means for identifying and controlling worksite hazards and the means for monitoring program effectiveness. The program will need to cover the responsibilities and authority of the site coordinator for the safety and health of employees at the site, and the relationships with contractors or support services as to what each employer's safety and health responsibilities are for their employees on the site. Each contractor on the site needs to have its own safety and health program so structured that it will smoothly interface with the program of the site coordinator or principal contractor.

Also those employers involved with treating, storing or disposal of hazardous waste as covered in paragraph (p) must have implemented a safety and health program for their employees. This program is to include the hazard communication program required in paragraph (p)(1) and the training required in paragraphs (p)(7) and (p)(8) as parts of the employers comprehensive overall safety and health program. This program is to be in writing.

Each site safety and health program will need to include the following: (1) Policy statements of the line of authority and accountability for implementing the program, the objectives of the program and the role of the site safety and health officer or manager and staff; (2) means or methods for the development of procedures for identifying and controlling workplace hazards at the site; (3) means or methods for the

development and communication to employees of the various plans, work rules, standard operating procedures and practices that pertain to individual employees and supervisors; (4) means for the training of supervisors and employees to develop the needed skills and knowledge to perform their work in a safe and healthful manner; (5) means to anticipate and prepare for emergency situations and; (6) means for obtaining information feedback to aid in evaluating the program and for improving the effectiveness of the program. The management and employees should be trying continually to improve the effectiveness of the program thereby enhancing the protection being afforded those working on the site.

Accidents on the site or workplace should be investigated to provide information on how such occurrences can be avoided in the future. When injuries or illnesses occur on the site or workplace, they will need to be investigated to determine what needs to be done to prevent this incident from occurring again. Such information will need to be used as feedback on the effectiveness of the program and the information turned into positive steps to prevent any reoccurrence. Receipt of employee suggestions or complaints relating to safety and health issues involved with site activities is also a feedback mechanism that can be used effectively to improve the program and may serve in part as an evaluative tool(s).

For the development and implementation of the program to be the most effective, professional safety and health personnel should be used. Certified Safety Professionals, Board Certified Industrial Hygienists or Registered Professional Safety Engineers are good examples of professional stature for safety and health managers who will administer the employer's program.

2. Training. The training programs for employees subject to the requirements of paragraph (e) of this standard should address: the safety and health hazards employees should expect to find on hazardous waste clean-up sites; what control measures or techniques are effective for those hazards; what monitoring procedures are effective in characterizing exposure levels; what makes an effective employer's safety and health program; what a site safety and health plan should include; hands on training with personal protective equipment and clothing they may be expected to use; the contents of the OSHA standard relevant to the employee's duties and function; and employee's responsibilities under OSHA and other regulations. Supervisors will need training in their responsibilities under the safety and health program and its subject areas such as the spill containment program, the personal protective equipment program, the medical surveillance program, the emergency response plan and other areas.

The training programs for employees subject to the requirements of paragraph (p) of this standard should address: the employer's safety and health program elements impacting employees; the hazard communication program; the hazards and the controls for such hazards that employees need to know for their job duties and functions. All require annual refresher training.

The training programs for employees covered by the requirements of paragraph (q) of this standard should address those competencies required for the various levels of response such as: the hazards associated with hazardous substances; hazard identification and awareness; notification of appropriate persons; the need for and use of personal protective equipment including respirators; the decontamination procedures to be used; preplanning activities for hazardous substance incidents including the emergency response plan; company standard operating procedures for hazardous substance emergency responses; the

use of the incident command system and other subjects. Hands-on training should be stressed whenever possible. Critiques done after an incident which include an evaluation of what worked and what did not and how could the incident be better handled the next time may be counted as training time.

For hazardous materials specialists (usually members of hazardous materials teams), the training should address the care, use and/or testing of chemical protective clothing including totally encapsulating suits, the medical surveillance program, the standard operating procedures for the hazardous materials team including the use of plugging and patching equipment and other subject areas.

Officers and leaders who may be expected to be in charge at an incident should be fully knowledgeable of their company's incident command system. They should know where and how to obtain additional assistance and be familiar with the local district's emergency response plan and the state emergency response plan.

Specialist employees such as technical experts, medical experts or environmental experts that work with hazardous materials in their regular jobs, who may be sent to the incident scene by the shipper, manufacturer or governmental agency to advise and assist the person in charge of the incident should have training on an annual basis. Their training should include the care and use of personal protective equipment including respirators; knowledge of the incident command system and how they are to relate to it; and those areas needed to keep them current in their respective field as it relates to safety and health involving specific hazardous substances.

Those skilled support personnel, such as employees who work for public works departments or equipment operators who operate bulldozers, sand trucks, backhoes, etc., who may be called to the incident scene to provide emergency support assistance, should have at least a safety and health briefing before entering the area of potential or actual exposure. These skilled support personnel, who have not been a part of the emergency response plan and do not meet the training requirements, should be made aware of the hazards they face and should be provided all necessary protective clothing and equipment required for their tasks.

There are two National Fire Protection Association standards. NFPA 472 - "Standard for Professional Competence of Responders to Hazardous Material Incidents" and NFPA 471 - "Recommended Practice for Responding to Hazardous Material Incidents", which are excellent resource documents to aid fire departments and other emergency response organizations in developing their training program materials. NFPA 472 provides guidance on the skills and knowledge needed for first responder awareness level, first responder operations level, hazmat technicians, and hazmat specialist. It also offers guidance for the officer corp who will be in charge of hazardous substance incidents.

3. Decontamination. Decontamination procedures should be tailored to the specific hazards of the site and will vary in complexity and number of steps, depending on the level of hazard and the employee's exposure to the hazard. Decontamination procedures and PPE decontamination methods will vary depending upon the specific substance, since one procedure or method will not work for all substances. Evaluation of decontamination methods and procedures should be performed, as necessary, to assure that

employees are not exposed to hazards by reusing PPE. References in Appendix D may be used for guidance in establishing an effective decontamination program. In addition, the U.S.Coast Guard's Manual, "Policy Guidance for Response to Hazardous Chemical Releases," U.S. Department of Transportation, Washington, DC (COMDTINST M16465.30) is a good reference for establishing an effective decontamination program.

4. Emergency response plans. States, along with designated districts within the states, will be developing or have developed emergency response plans. These state and district plans should be utilized in the emergency response plans called for in the standard. Each employer should assure that its emergency response plan is compatible with the local plan. The major reference being used to aid in developing the state and local district plans is the Hazardous Materials Emergency Planning Guide, NRT - 1. The current Emergency Response Guidebook from the U.S. Department of Transportation, CMA's CHEMTREC and the Fire Service Emergency Management Handbook may also be used as resources.

Employers involved with treatment, storage, and disposal facilities for hazardous waste, which have the required contingency plan called for by their permit, would not need to duplicate the same planning elements. Those items of the emergency response plan may be substituted into the emergency response plan required in 1910.120 or otherwise kept together for employer and employee use.

5. Personal protective equipment programs. The purpose of personal protective clothing and equipment (PPE) is to shield or isolate individuals from the chemical, physical, and biologic hazards that may be encountered at a hazardous substance site.

As discussed in Appendix B, no single combination of protective equipment and clothing is capable of protecting against all hazards. Thus PPE should be used in conjunction with other protective methods and its effectiveness evaluated periodically.

The use of PPE can itself create significant worker hazards, such as heat stress, physical and psychological stress, and impaired vision, mobility and communication. For any given situation, equipment and clothing should be selected that provide an adequate level of protection. However, over-protection, as well as under-protection, can be hazardous and should be avoided where possible. Two basic objectives of any PPE program should be to protect the wearer from safety and health hazards, and to prevent injury to the wearer from incorrect use and/or malfunction of the PPE. To accomplish these goals, a comprehensive PPE program should include hazard identification, medical monitoring, environmental surveillance, selection, use, maintenance, and decontamination of PPE and its associated training.

The written PPE program should include policy statements, procedures, and guidelines. Copies should be made available to all employees, and a reference copy should be made available at the worksite. Technical data on equipment, maintenance manuals, relevant regulations, and other essential information should also be collected and maintained.

6. Incident command system (ICS). Paragraph 1910.120(q)(3)(ii) requires the implementation of an ICS.

The ICS is an organized approach to effectively control and manage operations at an emergency incident. The individual in charge of the ICS is the senior official responding to the incident. The ICS is not much different than the "command post" approach used for many years by the fire service. During large complex fires involving several companies and many pieces of apparatus, a command post would be established. This enabled one individual to be in charge of managing the incident, rather than having several officers from different companies making separate, and sometimes conflicting, decisions. The individual in charge of the command post would delegate responsibility for performing various tasks to subordinate officers. Additionally, all communications were routed through the command post to reduce the number of radio transmissions and eliminate confusion. However, strategy, tactics, and all decisions were made by one individual.

The ICS is a very similar system, except it is implemented for emergency response to all incidents, both large and small, that involve hazardous substances.

For a small incident, the individual in charge of the ICS may perform many tasks of the ICS. There may not be any, or little, delegation of tasks to subordinates. For example, in response to a small incident, the individual in charge of the ICS, in addition to normal command activities, may become the safety officer and may designate only one employee (with proper equipment) as a backup to provide assistance if needed. OSHA does recommend, however, that at least two employees be designated as back-up personnel since the assistance needed may include rescue.

To illustrate the operation of the ICS, the following scenario might develop during a small incident, such as an overturned tank truck with a small leak of flammable liquid.

The first responding senior officer would implement and take command of the ICS. That person would size-up the incident and determine if additional personnel and apparatus were necessary; would determine what actions to take to control the leak; and determine the proper level of personal protective equipment. If additional assistance is not needed, the individual in charge of the ICS would implement actions to stop and control the leak using the fewest number of personnel that can effectively accomplish the tasks. The individual in charge of the ICS then would designate himself as the safety officer and two other employees as a back-up in case rescue may become necessary. In this scenario, decontamination procedures would not be necessary.

A large complex incident may require many employees and difficult, time-consuming efforts to control. In these situations, the individual in charge of the ICS will want to delegate different tasks to subordinates in order to maintain a span of control that will keep the number of subordinates, that are reporting, to a manageable level.

Delegation of task at large incidents may be by location, where the incident scene is divided into sectors, and subordinate officers coordinate activities within the sector that they have been assigned.

Delegation of tasks can also be by function. Some of the functions that the individual in charge of the ICS may want to delegate at a large incident are: medical services; evacuation; water supply; resources

(equipment, apparatus); media relations; safety; and, site control (integrate activities with police for crowd and traffic control). Also for a large incident, the individual in charge of the ICS will designate several employees as back-up personnel; and a number of safety officers to monitor conditions and recommend safety precautions.

Therefore, no matter what size or complexity an incident may be, by implementing an ICS there will be one individual in charge who makes the decisions and gives directions; and, all actions, and communications are coordinated through one central point of command. Such a system should reduce confusion, improve safety, organize and coordinate actions, and should facilitate effective management of the incident.

7. Site Safety and Control Plans. The safety and security of response personnel and others in the area of an emergency response incident site should be of primary concern to the incident commander. The use of a site safety and control plan could greatly assist those in charge of assuring the safety and health of employees on the site.

A comprehensive site safety and control plan should include the following: summary analysis of hazards on the site and a risk analysis of those hazards; site map or sketch; site work zones (clean zone, transition or decontamination zone, work or hot zone); use of the buddy system; site communications; command post or command center; standard operating procedures and safe work practices; medical assistance and triage area; hazard monitoring plan (air contaminate monitoring, etc.); decontamination procedures and area; and other relevant areas. This plan should be a part of the employer's emergency response plan or an extension of it to the specific site.

8. Medical surveillance programs. Workers handling hazardous substances may be exposed to toxic chemicals, safety hazards, biologic hazards, and radiation. Therefore, a medical surveillance program is essential to assess and monitor workers' health and fitness for employment in hazardous waste operations and during the course of work; to provide emergency and other treatment as needed; and to keep accurate records for future reference.

The Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities developed by the National Institute for Occupational Safety and Health (NIOSH), the Occupational Safety and Health Administration (OSHA), the U.S. Coast Guard (USCG), and the Environmental Protection Agency (EPA); October 1985 provides an excellent example of the types of medical testing that should be done as part of a medical surveillance program.

9. New Technology and Spill Containment Programs. Where hazardous substances may be released by spilling from a container that will expose employees to the hazards of the materials, the employer will need to implement a program to contain and control the spilled material. Diking and ditching, as well as use of absorbents like diatomaceous earth, are traditional techniques which have proven to be effective over the years. However, in recent years new products have come into the marketplace, the use of which complement and increase the effectiveness of these traditional methods. These new products also provide emergency responders and others with additional tools or agents to use to reduce the hazards of spilled

materials.

These agents can be rapidly applied over a large area and can be uniformly applied or otherwise can be used to build a small dam, thus improving the workers' ability to control spilled material. These application techniques enhance the intimate contact between the agent and the spilled material allowing for the quickest effect by the agent or quickest control of the spilled material. Agents are available to solidify liquid spilled materials, to suppress vapor generation from spilled materials, and to do both. Some special agents, which when applied as recommended by the manufacturer, will react in a controlled manner with the spilled material to neutralize acids or caustics, or greatly reduce the level of hazard of the spilled material.

There are several modern methods and devices for use by emergency response personnel or others involved with spill control efforts to safely apply spill control agents to control spilled material hazards. These include portable pressurized applicators similar to hand-held portable fire extinguishing devices, and nozzle and hose systems similar to portable fire fighting foam systems which allow the operator to apply the agent without having to come into contact with the spilled material. The operator is able to apply the agent to the spilled material from a remote position.

The solidification of liquids provides for rapid containment and isolation of hazardous substance spills. By directing the agent at run-off points or at the edges of the spill, the reactant solid will automatically create a barrier to slow or stop the spread of the material. Clean-up of hazardous substances is greatly improved when solidifying agents, acid or caustic neutralizers, or activated carbon absorbents are used. properly applied, these agents can totally solidify liquid hazardous substances or neutralize or absorb them, which results in materials which are less hazardous and easier to handle, transport, and dispose of. The concept of spill treatment, to create less hazardous substances, will improve the safety and level of protection of employees working at spill clean-up operations or emergency response operations to spills of hazardous substances.

The use of vapor suppression agents for volatile hazardous substances, such as flammable liquids and those substances, such as flammable liquids and those substances which present an inhalation hazard, is important for protecting workers. The rapid and uniform distribution of the agent over the surface of the spilled material can provide quick vapor knockdown. There are temporary and long-term foam-type agents which are effective on vapors and dusts, and activated carbon adsorption agents which are effective for vapor control and soaking-up of the liquid. The proper use of hose lines or hand-held portable pressurized applicators provides good mobility and permits the worker to deliver the agent from a safe distance without having to step into the untreated spilled material. Some of these systems can be recharged in the field to provide coverage of larger spill areas than the design limits of a single charged applicator unit. Some of the more effective agents can solidify the liquid flammable hazardous substances and at the same time elevate the flashpoint above 140 degrees F so the resulting substance may be handled as a nonhazardous waste material if it meets the U.S. Environmental Protection Agency's 40 CFR part 261 requirements (See particularly 261.21).

All workers performing hazardous substance spill control work are expected to wear the proper protective

clothing and equipment for the materials present and to follow the employer's established standard operating procedures for spill control. All involved workers need to be trained in the established operating procedures; in the use and care of spill control equipment; and in the associated hazards and control of such hazards of spill containment work.

These new tools and agents are the things that employers will want to evaluate as part of their new technology program. The treatment of spills of hazardous substances or wastes at an emergency incident as part of the immediate spill containment and control efforts is sometimes acceptable to EPA and a permit exception is described in 40 CFR 264.1(g)(8) and 265.1(c)(11).

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OSHA Regulations (Standards - 29 CFR)

General description and discussion of the levels of protection and protective gear. - 1910.120 App B

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- **Standard Number:** 1910.120 App B
 - **Standard Title:** General description and discussion of the levels of protection and protective gear.
 - **SubPart Number:** H
 - **SubPart Title:** Hazardous Materials
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This appendix sets forth information about personal protective equipment (PPE) protection levels which may be used to assist employers in complying with the PPE requirements of this section.

As required by the standard, PPE must be selected which will protect employees from the specific hazards which they are likely to encounter during their work on-site.

Selection of the appropriate PPE is a complex process which should take into consideration a variety of factors. Key factors involved in this process are identification of the hazards, or suspected hazards; their routes of potential hazard to employees (inhalation, skin absorption, ingestion, and eye or skin contact); and the performance of the PPE materials (and seams) in providing a barrier to these hazards. The amount of protection provided by PPE is material-hazard specific. That is, protective equipment materials will protect well against some hazardous substances and poorly, or not at all, against others. In many instances, protective equipment materials cannot be found which will provide continuous protection from the particular hazardous substance. In these cases the breakthrough time of the protective material should exceed the work durations.(end of sentence deleted - FR 14074, Apr 13. 1990)

Other factors in this selection process to be considered are matching the PPE to the employee's work requirements and task-specific conditions. The durability of PPE materials, such as tear strength and seam strength, should be considered in relation to the employee's tasks . The effects of PPE in relation to heat stress and task duration are a factor in selecting and using PPE. In some cases layers of PPE may be necessary to provide sufficient protection, or to protect expensive PPE inner garments, suits or equipment.

The more that is known about the hazards at the site, the easier the job of PPE selection becomes. As more information about the hazards and conditions at the site becomes available, the site supervisor can make decisions to up-grade or down-grade the level of PPE protection to match the tasks at hand.

The following are guidelines which an employer can use to begin the selection of the appropriate PPE. As noted above, the site information may suggest the use of combinations of PPE selected from the different protection levels (i.e., A, B, C, or D) as being more suitable to the hazards of the work. It should be cautioned that the listing below does not fully address the performance of the specific PPE material in relation to the specific hazards at the job site, and that PPE selection, evaluation and re-selection is an ongoing process until sufficient information about the hazards and PPE performance is obtained.

Part A. Personal protective equipment is divided into four categories based on the degree of protection afforded. (See Part B of this appendix for further explanation of Levels A, B, C, and D hazards.)

I. Level A - To be selected when the greatest level of skin, respiratory, and eye protection is required.

The following constitute Level A equipment; it may be used as appropriate;

1. Positive pressure, full face-piece self-contained breathing apparatus (SCBA), or positive pressure supplied air respirator with escape SCBA, approved by the National Institute for Occupational Safety and Health (NIOSH).
2. Totally-encapsulating chemical-protective suit.
3. Coveralls.(1)
4. Long underwear.(1)
5. Gloves, outer, chemical-resistant.
6. Gloves, inner, chemical-resistant.
7. Boots, chemical-resistant, steel toe and shank.
8. Hard hat (under suit).(1)
9. Disposable protective suit, gloves and boots (depending on suit construction, may be worn over totally-encapsulating suit).

Footnote(1) Optional, as applicable.

II. Level B - The highest level of respiratory protection is necessary but a lesser level of skin protection is

needed.

The following constitute Level B equipment; it may be used as appropriate.

1. Positive pressure, full-facepiece self-contained breathing apparatus (SCBA), or positive pressure supplied air respirator with escape SCBA (NIOSH approved).
2. Hooded chemical-resistant clothing (overalls and long-sleeved jacket; coveralls; one or two-piece chemical-splash suit; disposable chemical-resistant overalls).
3. Coveralls.(1)
4. Gloves, outer, chemical-resistant.
5. Gloves, inner, chemical-resistant.
6. Boots, outer, chemical-resistant steel toe and shank.
7. Boot-covers, outer, chemical-resistant (disposable).(1)
8. Hard hat.(1)
9. [Reserved]
10. Face shield.(1)

Footnote(1) Optional, as applicable.

III. Level C - The concentration(s) and type(s) of airborne substance(s) is known and the criteria for using air purifying respirators are met.

The following constitute Level C equipment; it may be used as appropriate.

1. Full-face or half-mask, air purifying respirators (NIOSH approved).
2. Hooded chemical-resistant clothing (overalls; two-piece chemical-splash suit; disposable chemical-resistant overalls).
3. Coveralls.(1)

4. Gloves, outer, chemical-resistant.
5. Gloves, inner, chemical-resistant.
6. Boots (outer), chemical-resistant steel toe and shank.(1)
7. Boot-covers, outer, chemical-resistant (disposable).(1)
8. Hard hat.(1)
9. Escape mask.(1)
10. Face shield.(1)

Footnote(1) Optional, as applicable.

IV. Level D - A work uniform affording minimal protection: used for nuisance contamination only.

The following constitute Level D equipment; it may be used as appropriate:

1. Coveralls.
2. Gloves.(1)
3. Boots/shoes, chemical-resistant steel toe and shank.
4. Boots, outer, chemical-resistant (disposable).(1)
5. Safety glasses or chemical splash goggles.(1)
6. Hard hat.(1)
7. Escape mask.(1)
8. Face shield.(1)

Footnote(1) Optional, as applicable.

Part B. The types of hazards for which levels A, B, C, and D protection are appropriate are described below:

I. Level A - Level A protection should be used when:

1. The hazardous substance has been identified and requires the highest level of protection for skin, eyes, and the respiratory system based on either the measured (or potential for) high concentration of atmospheric vapors, gases, or particulates; or the site operations and work functions involve a high potential for splash, immersion, or exposure to unexpected vapors, gases, or particulates of materials that are harmful to skin or capable of being absorbed through the skin,
2. Substances with a high degree of hazard to the skin are known or suspected to be present, and skin contact is possible; or
3. Operations must be conducted in confined, poorly ventilated areas, and the absence of conditions requiring Level A have not yet been determined.

II. Level B protection should be used when:

1. The type and atmospheric concentration of substances have been identified and require a high level of respiratory protection, but less skin protection.
2. The atmosphere contains less than 19.5 percent oxygen; or
3. The presence of incompletely identified vapors or gases is indicated by a direct-reading organic vapor detection instrument, but vapors and gases are not suspected of containing high levels of chemicals harmful to skin or capable of being absorbed through the skin.

Note: This involves atmospheres with IDLH concentrations of specific substances that present severe inhalation hazards and that do not represent a severe skin hazard; or that do not meet the criteria for use of air-purifying respirators.

III. Level C - Level C protection should be used when:

1. The atmospheric contaminants, liquid splashes, or other direct contact will not adversely affect or be absorbed through any exposed skin;
2. The types of air contaminants have been identified, concentrations measured, and an air-purifying respirator is available that can remove the contaminants; and

3. All criteria for the use of air-purifying respirators are met.

IV. Level D - Level D protection should be used when:

1. The atmosphere contains no known hazard; and
2. Work functions preclude splashes, immersion, or the potential for unexpected inhalation of or contact with hazardous levels of any chemicals.

Note: As stated before, combinations of personal protective equipment other than those described for Levels A, B, C, and D protection may be more appropriate and may be used to provide the proper level of protection.

As an aid in selecting suitable chemical protective clothing, it should be noted that the National Fire Protection Association (NFPA) has developed standards on chemical protective clothing. The standards that have been adopted by include:

NFPA 1991 - Standard on Vapor-Protective Suits for Hazardous Chemical Emergencies (EPA Level A Protective Clothing)

NFPA 1992 - Standard on Liquid Splash-Protective Suits for Hazardous Chemical Emergencies (EPA Level B Protective Clothing)

NFPA 1993 - Standard on Liquid Splash-Protective Suits for Non-emergency, Non-flammable Hazardous Chemical Situations (EPA Level B Protective Clothing)

These standards apply documentation and performance requirements to the manufacture of chemical protective suits. Chemical protective suits meeting these requirements are labeled as compliant with the appropriate standard. It is recommended that chemical protective suits that meet these standards be used.

[59 FR 43268, Aug. 22, 1994]

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OSHA Regulations (Standards - 29 CFR)

Personal protective equipment test methods. - 1910.120 App A

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- **Standard Number:** 1910.120 App A
- **Standard Title:** Personal protective equipment test methods.
- **SubPart Number:** H
- **SubPart Title:** Hazardous Materials

This appendix sets forth the non-mandatory examples of tests which may be used to evaluate compliance with paragraphs 1910.120(g)(4) (ii) and (iii). Other tests and other challenge agents may be used to evaluate compliance.

A. Totally-Encapsulating chemical protective suit pressure test

1.0 - Scope

1.1 This practice measures the ability of a gas tight totally-encapsulating chemical protective suit material, seams, and closures to maintain a fixed positive pressure. The results of this practice allow the gas tight integrity of a total-encapsulating chemical protective suit to be evaluated.

1.2 Resistance of the suit materials to permeation, penetration, and degradation by specific hazardous substances is not determined by this test method.

2.0 - Description of Terms

2.1 "Totally-encapsulated chemical protective suit (TECP suit)" means a full body garment which is constructed of protective clothing materials; covers the wearer's torso, head, arms, legs and respirator; may cover the wearer's hands and feet with tightly attached gloves and boots; completely encloses the wearer and respirator by itself or in combination with the wearer's gloves and boots.

2.2 "Protective clothing material" means any material or combination of materials used in an item of clothing for the purpose of isolating parts of the body from direct contact with a potentially hazardous liquid or gaseous chemicals.

2.3 "Gas tight" means, for the purpose of the test method, the limited flow of a gas under pressure from the inside of a TECP suit to atmosphere at a prescribed pressure and time interval.

3.0 - Summary of test method

3.1 The TECP suit is visually inspected and modified for the test. The test apparatus is attached to the suit to permit inflation to the pre-test suit expansion pressure for removal of suit wrinkles and creases. The pressure is lowered to the test pressure and monitored for three minutes. If the pressure drop is excessive, the TECP suit fails the test and is removed from service. The test is repeated after leak location and repair.

4.0 - Required Supplies

4.1 Source of compressed air.

4.2 Test apparatus for suit testing including a pressure measurement device with a sensitivity of at least 1/4 inch water gauge.

4.3 Vent valve closure plugs or sealing tape.

4.4 Soapy water solution and soft brush.

4.5 Stop watch or appropriate timing device.

5.0 - Safety Precautions

5.1 Care shall be taken to provide the correct pressure safety devices required for the source of compressed air used.

6.0 - Test Procedure

6.1 Prior to each test, the tester shall perform a visual inspection of the suit. Check the suit for seam integrity by visually examining the seams and gently pulling on the seams. Ensure that all air supply lines, fittings, visor, zippers, and valves are secure and show no signs of deterioration.

6.1.1 Seal off the vent valves along with any other normal inlet or exhaust points (such as umbilical air line fittings or face piece opening) with tape or other appropriate means (caps, plugs, fixture, etc.). Care should be exercised in the sealing process not to damage any of the suit components.

6.1.2 Close all closure assemblies.

6.1.3 Prepare the suit for inflation by providing an improvised connection point on the suit for connecting an airline. Attach the pressure test apparatus to the suit to permit suit inflation from a compressed air source equipped with a pressure indicating regulator. The leak tightness of the pressure test apparatus should be tested before and after each test by closing off the end of the tubing attached to the suit and assuring a pressure of three inches water gauge for three minutes can be maintained. If a component is removed for the test, that component shall be replaced and a second test conducted with another component removed to permit a complete tests of the ensemble.

6.1.4 The pre-test expansion pressure (A) and the suit test pressure (B) shall be supplied by the suit manufacturer, but in no case shall they be less than: (A) = 3 inches water gauge and (B) = 2 inches water gauge. The ending suit pressure (C) shall be no less than 80 percent of the test pressure (B); i.e., the pressure drop shall not exceed 20 percent of the test pressure (B).

6.1.5 Inflate the suit until the pressure inside is equal to pressure (A), the pre-test expansion suit pressure. Allow at least one minute to fill out the wrinkles in the suit. Release sufficient air to reduce the suit pressure to pressure (B), the suit test pressure. Begin timing. At the end of three minutes, record the suit pressure as pressure (C), the ending suit pressure. The difference between the suit test pressure and the ending suit test pressure (B - C) shall be defined as the suit pressure drop.

6.1.6 If the suit pressure drop is more than 20 percent of the suit test pressure (B) during the three minute test period, the suit fails the test and shall be removed from service.

7.0 - Retest Procedure

7.1 If the suit fails the test check for leaks by inflating the suit to pressure (A) and brushing or wiping the entire suit (including seams, closures, lens gaskets, glove-to-sleeve joints, etc.) with a mild soap and water solution. Observe the suit for the formation of soap bubbles, which is an indication of a leak. Repair all identified leaks.

7.2 Retest the TECP suit as outlined in Test procedure 6.0.

8.0 - Report

8.1 Each TECP suit tested by this practice shall have the following information recorded.

8.1.1 Unique identification number, identifying brand name, date of purchase, material of construction, and unique fit features; e.g., special breathing apparatus.

8.1.2 The actual values for test pressures,(A), (B), and (C) shall be recorded along with the specific observation times. If the ending pressure (C) is less than 80 percent of the test pressure (B), the suit shall be identified as failing the test. When possible, the specific leak location shall be identified in the test records. Retest pressure data shall be recorded as an additional test.

8.1.3 The source of the test apparatus used shall be identified and the sensitivity of the pressure gauge shall be recorded.

8.1.4 Records shall be kept for each pressure test even if repairs are being made at the test location.

Caution

Visually inspect all parts of the suit to be sure they are positioned correctly and secured tightly before putting the suit back into service. Special care should be taken to examine each exhaust valve to make sure it is not blocked.

Care should also be exercised to assure that the inside and outside of the suit is completely dry before it is put into storage.

B. Totally-encapsulated chemical protective suit qualitative leak

test

1.0 - Scope

1.1 This practice semi-qualitatively tests gas tight totally-encapsulating chemical protective suit integrity by detecting inward leakage of ammonia vapor. Since no modifications are made to the suit to carry out this test, the results from this practice provide a realistic test for the integrity of the entire suit.

1.2 Resistance of the suit materials to permeation, penetration, and degradation is not determined by this test method. ASTM test methods are available to test suit materials for these characteristics and the tests are usually conducted by the manufacturers of the suits.

2.0 - Description of Terms

2.1 "Totally-encapsulated chemical protective suit (TECP suit)" means a full body garment which is constructed of protective clothing materials; covers the wearer's torso, head, arms, legs and respirator; may cover the wearer's hands and feet with tightly attached gloves and boots; completely encloses the wearer and respirator by itself or in combination with the wearer's gloves, and boots.

2.2 "Protective clothing material" means any material or combination of materials used in an item of clothing for the purpose of isolating parts of the body from direct contact with a potentially hazardous liquid or gaseous chemicals.

2.3 "Gas tight" means, for the purpose of this practice the limited flow of a gas under pressure from the inside of a TECP suit to atmosphere at a prescribed pressure and time interval.

2.4 "Intrusion Coefficient" means a number expressing the level of protection provided by a gas tight totally-encapsulating chemical protective suit. The intrusion coefficient is calculated by dividing the test room challenge agent concentration by the concentration of challenge agent found inside the suit. The accuracy of the intrusion coefficient is dependent on the challenge agent monitoring methods. The larger the intrusion coefficient the greater the protection provided by the TECP suit.

3.0 - Summary of recommended practice

3.1 The volume of concentrated aqueous ammonia solution (ammonia hydroxide, NH_4OH) required to generate the test atmosphere is determined using the directions outlined in 6.1. The suit is donned by a person wearing the appropriate respiratory equipment (either a self-contained breathing apparatus or a supplied air respirator) and worn inside the enclosed test room. The concentrated aqueous ammonia solution is taken by the suited individual into the test room and poured into an open plastic pan. A two-minute evaporation period is observed before the test room concentration is measured using a high range ammonia length of stain detector tube. When the ammonia vapor reaches a concentration of between 1000 and 1200 ppm, the suited individual starts a standardized exercise protocol to stress and flex the suit. After this protocol is completed the test room concentration is measured again. The suited individual exits the test room and his stand-by person measures the ammonia concentration inside the suit using a low range ammonia length of stain detector tube or other more sensitive ammonia detector. A stand-by person is required to observe the test individual during the test procedure, aid the person in donning and doffing the TECP suit; and monitor the suit interior. The intrusion coefficient of the suit can be calculated by dividing the average test area concentration by the interior suit concentration. A colorimetric indicator strip of bromophenol blue is placed on the inside of the suit face piece lens so that the suited individual is able to detect a color change and know if the suit has a significant leak. If a color change is observed the individual should leave the test room immediately.

4.0 - Required supplies

4.1 A supply of concentrated aqueous ammonium hydroxide (58 percent by weight).

4.2 A supply of bromophenol/blue indicating paper, sensitive to 5-10 ppm ammonia or greater over a two-minute period of exposure.[pH 3.0(yellow) to pH 4.6(blue)]

4.3 A supply of high range (0.5 - 10 volume percent) and low range (5 - 700 ppm) detector tubes for ammonia and the corresponding sampling pump. More sensitive ammonia detectors can be substituted for the low range detector tubes to improve the sensitivity of this practice.

4.4 A plastic pan (PVC) at least 12":14":1" and a half pint plastic container (PVC) with tightly closing lid.

4.5 A graduated cylinder or other volumetric measuring device of at least 50 milliliters in volume with an accuracy of at least + or - 1 milliliters.

5.0 - Safety precautions

5.1 Concentrated aqueous ammonium hydroxide, NH_4OH , is a corrosive volatile liquid requiring eye, skin, and respiratory protection. The person conducting test shall review the MSDS for aqueous ammonia.

5.2 Since the established permissible exposure limit for ammonia is 35 ppm as a 15 minute STEL, only persons wearing a positive pressure self-contained breathing apparatus or a supplied air respirator shall be in the chamber. Normally only the person wearing the total-encapsulating suit will be inside the chamber. A stand-by person shall have a positive pressure self-contained breathing apparatus, or a supplied air respirator, available to enter the test area should the suited individual need assistance.

5.3 A method to monitor the suited individual must be used during this test. Visual contact is the simplest but other methods using communication devices are acceptable.

5.4 The test room shall be large enough to allow the exercise protocol to be carried out and then to be ventilated to allow for easy exhaust of the ammonia test atmosphere after the test(s) are completed.

5.5 Individuals shall be medically screened for the use of respiratory protection and checked for allergies to ammonia before participating in this test procedure.

6.0 - Test procedure

6.1.1 Measure the test area to the nearest foot and calculate its volume in cubic feet. Multiply the test area volume by 0.2 milliliters of concentrated aqueous ammonia solution per cubic foot of test area volume to determine the approximate volume of concentrated aqueous ammonia required to generate 1000 ppm in the test area.

6.1.2 Measure this volume from the supply of concentrated ammonia and place it into a closed plastic container.

6.1.3 Place the container, several high range ammonia detector tubes, and the pump in the clean test pan and locate it near the test area entry door so that the suited individual has easy access to these supplies.

6.2.1 In a non-contaminated atmosphere, open a pre-sealed ammonia indicator strip and fasten one end of the strip to the inside of suit face shield lens where it can be seen by the wearer. Moisten the indicator strip with distilled water. Care shall be taken not to contaminate the detector part of the indicator paper by touching it. A small piece of masking tape or equivalent should be used to attach the indicator strip to the interior of the suit face shield.

6.2.2 If problems are encountered with this method of attachment, the indicator strip can be attached to the outside of the respirator face piece being used during the test.

6.3 Don the respiratory protective device normally used with the suit, and then don the TECP suit to be tested. Check to be sure all openings which are intended to be sealed (zippers, gloves, etc.) are completely sealed. DO NOT, however, plug off any venting valves.

6.4 Step into the enclosed test room such as a closet, bathroom, or test booth, equipped with an exhaust fan. No air should be exhausted from the chamber during the test because this will dilute the ammonia challenge concentrations.

6.5 Open the container with the pre-measured volume of concentrated aqueous ammonia within the enclosed test room, and pour the liquid into the empty plastic test pan. Wait two minutes to allow for adequate volatilization of the concentrated aqueous ammonia. A small mixing fan can be used near the evaporation pan to increase the evaporation rate of ammonia solution.

6.6 After two minutes a determination of the ammonia concentration within the chamber should be made using the high range colorimetric detector tube. A concentration of 1000 ppm ammonia or greater shall be generated before the exercises are started.

6.7 To test the integrity of the suit the following four minute exercise protocol should be followed:

6.7.1 Raising the arms above the head with at least 15 raising motions completed in one minute.

6.7.2 Walking in place for one minute with at least 15 raising motions of each leg in a one-minute period.

6.7.3 Touching the toes with a least 10 complete motions of the arms from above the head to touching of the toes in a one-minute period.

6.7.4 Knee bends with at least 10 complete standing and squatting motions in a one-minute period.

6.8 If at any time during the test the colorimetric indicating paper should change colors, the test should be stopped and section 6.10 and 6.12 initiated (See 4.2).

6.9 After completion of the test exercise, the test area concentration should be measured again using the high range colorimetric detector tube.

6.10 Exit the test area.

6.11 The opening created by the suit zipper or other appropriate suit penetration should be used to determine the ammonia concentration in the suit with the low range length of stain detector tube or other ammonia monitor. The internal TECP suit air should be sampled far enough from the enclosed test area to prevent a false ammonia reading.

6.12 After completion of the measurement of the suit interior ammonia concentration the test is concluded and the suit is doffed and the respirator removed.

6.13 The ventilating fan for the test room should be turned on and allowed to run for enough time to remove the ammonia gas. The fan shall be vented to the outside of the building.

6.14 Any detectable ammonia in the suit interior (five ppm (NH₃)) or more for the length of stain detector tube) indicates the suit has failed the test. When other ammonia detectors are used a lower level of detection is possible, and it should be specified as the pass/fail criteria.

6.15 By following this test method, an intrusion coefficient of approximately 200 or more can be measured with the suit in a completely operational condition. If the coefficient is 200 or more, then the suit is suitable for emergency response and field use.

7.0 - Retest procedures

7.1 If the suit fails this test, check for leaks by following the pressure test in test A above.

7.2 Retest the TECP suit as outlined in the test procedure 6.0.

8.0 - Report

8.1 Each gas tight totally-encapsulating chemical protective suit tested by this practice shall have the following information recorded.

8.1.1 Unique identification number identifying brand name, date of purchase, material of construction, and unique suit features; e.g., special breathing apparatus.

8.1.2 General description of test room used for test.

8.1.3 Brand name and purchase date of ammonia detector strips and color change date.

8.1.4 Brand name, sampling range, and expiration date of the length of stain ammonia detector tubes. The brand name and model of the sampling pump should also be recorded. If another type of ammonia detector is used, it should be identified along with its minimum detection limit for ammonia.

8.1.5 Actual test results shall list the two test area concentrations, their average, the interior suit concentration, and the calculated intrusion coefficient. Retest data shall be recorded as an additional test.

8.2 The evaluation of the data shall be specified as "suit passed" or "suit failed," and the date of the test. Any detectable ammonia (five ppm or greater for the length of stain detector tube) in the suit interior indicates the suit has failed this test. When other ammonia detectors are used, a lower level of detection is

possible and it should be specified as the pass fail criteria.

Caution

Visually inspect all parts of the suit to be sure they are positioned correctly and secured tightly before putting the suit back into service. Special care should be taken to examine each exhaust valve to make sure it is not blocked.

Care should also be exercised to assure that the inside and outside of the suit is completely dry before it is put into storage.

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OSHA Regulations (Standards - 29 CFR)

Hazardous waste operations and emergency response. - 1910.120

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- **Standard Number:** 1910.120
- **Standard Title:** Hazardous waste operations and emergency response.
- **SubPart Number:** H
- **SubPart Title:** Hazardous Materials



(a)

Scope, application, and definitions. -

(a)(1)

Scope. This section covers the following operations, unless the employer can demonstrate that the operation does not involve employee exposure or the reasonable possibility for employee exposure to safety or health hazards:

(a)(1)(i)

Clean-up operations required by a governmental body, whether Federal, state local or other involving hazardous substances that are conducted at uncontrolled hazardous waste sites (including, but not limited to, the EPA's National Priority Site List (NPL), state priority site lists, sites recommended for the EPA NPL, and initial investigations of government identified sites which are conducted before the presence or absence of hazardous substances has been ascertained;

(a)(1)(ii)

Corrective actions involving clean-up operations at sites covered by the Resource Conservation and Recovery Act of 1976 (RCRA) as amended (42 U.S.C. 6901 et seq);

..1910.120(a)(1)(iii)

(a)(1)(iii)

Voluntary clean-up operations at sites recognized by Federal, state, local or other governmental bodies as uncontrolled hazardous waste sites;

(a)(1)(iv)

Operations involving hazardous waste that are conducted at treatment, storage, disposal (TSD) facilities regulated by 40 CFR Parts 264 and 265 pursuant to RCRA; or by agencies under agreement with U.S.E.P.A. to implement RCRA regulations; and

(a)(1)(v)

Emergency response operations for releases of, or substantial threats of releases of, hazardous substances without regard to the location of the hazard.

(a)(2)

Application.

(a)(2)(i)

All requirements of Part 1910 and Part 1926 of Title 29 of the Code of Federal Regulations apply pursuant to their terms to hazardous waste and emergency response operations whether covered by this section or not. If there is a conflict or overlap, the provision more protective of employee safety and health shall apply without regard to 29 CFR 1910.5(c)(1).

(a)(2)(ii)

Hazardous substance clean-up operations within the scope of paragraphs (a)(1)(i) through (a)(1)(iii) of this section must comply with all paragraphs of this section except paragraphs (p) and (q).

..1910.120(a)(2)(iii)

(a)(2)(iii)

Operations within the scope of paragraph (a)(1)(iv) of this section must comply only with the requirements of paragraph (p) of this section.

Notes and Exceptions:

(a)(2)(iii)(A)

All provisions of paragraph (p) of this section cover any treatment, storage or disposal (TSD) operation regulated by 40 CFR parts 264 and 265 or by state law authorized under RCRA, and required to have a permit or interim status from EPA pursuant to 40 CFR 270.1 or from a state agency pursuant to RCRA.

(a)(2)(iii)(B)

Employers who are not required to have a permit or interim status because they are conditionally exempt small quantity generators under 40 CFR 261.5 or are generators who qualify under 40 CFR 262.34 for exemptions from regulation under 40 CFR 262.34 for exemptions from regulation under 40 CFR parts 264, 265, and 270 ("excepted employers") are not covered by paragraphs (p)(1) through (p)(7) of this section. Excepted employers who are required by the EPA or state agency to have their employees engage in emergency response or who direct their employees to engage in emergency response are covered by paragraph (p)(8) of this section, and cannot be exempted by (p)(8)(i) of this section.

..1910.120(a)(2)(iii)(C)

(a)(2)(iii)(C)

If an area is used primarily for treatment, storage or disposal, any emergency response operations in that area shall comply with paragraph (p) (8) of this section. In other areas not used primarily for treatment, storage, or disposal, any emergency response operations shall comply with paragraph (q) of this section. Compliance with the requirements of paragraph (q) of this section shall be deemed to be in compliance with the requirements of paragraph (p)(8) of this section.

(a)(2)(iv)

Emergency response operations for releases of, or substantial threats of releases of, hazardous substances which are not covered by paragraphs (a)(1)(i) through (a)(1)(iv) of this section must only comply with the requirements of paragraph (q) of this section.

(a)(3)

Definitions -

"Buddy system" means a system of organizing employees into work groups in such a manner that each employee of the work group is designated to be observed by at least one other employee in the work group. The purpose of the buddy system is to provide rapid assistance to employees in the event of an emergency.

"Clean-up operation" means an operation where hazardous substances are removed, contained,

incinerated, neutralized, stabilized, cleared-up, or in any other manner processed or handled with the ultimate goal of making the site safer for people or the environment.

"Decontamination" means the removal of hazardous substances from employees and their equipment to the extent necessary to preclude the occurrence of foreseeable adverse health effects.

"Emergency response" or "responding to emergencies" means a response effort by employees from outside the immediate release area or by other designated responders (i.e., mutual aid groups, local fire departments, etc.) to an occurrence which results, or is likely to result, in an uncontrolled release of a hazardous substance. Responses to incidental releases of hazardous substances where the substance can be absorbed, neutralized, or otherwise controlled at the time of release by employees in the immediate release area, or by maintenance personnel are not considered to be emergency responses within the scope of this standard. Responses to releases of hazardous substances where there is no potential safety or health hazard (i.e., fire, explosion, or chemical exposure) are not considered to be emergency responses.

"Facility" means (A) any building, structure, installation, equipment, pipe or pipeline (including any pipe into a sewer or publicly owned treatment works), well, pit, pond, lagoon, impoundment, ditch, storage container, motor vehicle, rolling stock, or aircraft, or (B) any site or area where a hazardous substance has been deposited, stored, disposed of, or placed, or otherwise come to be located; but does not include any consumer product in consumer use or any water-borne vessel.

"Hazardous materials response (HAZMAT) team" means an organized group of employees, designated by the employer, who are expected to perform work to handle and control actual or potential leaks or spills of hazardous substances requiring possible close approach to the substance. The team members perform responses to releases or potential releases of hazardous substances for the purpose of control or stabilization of the incident. A HAZMAT team is not a fire brigade nor is a typical fire brigade a HAZMAT team. A HAZMAT team, however, may be a separate component of a fire brigade or fire department.

"Hazardous substance" means any substance designated or listed under (A) through (D) of this definition, exposure to which results or may result in adverse effects on the health or safety of employees:

[A] Any substance defined under section 101(14) of CERCLA;

[B] Any biologic agent and other disease causing agent which after release into the environment and upon exposure, ingestion, inhalation, or assimilation into any person, either directly from the environment or indirectly by ingestion through food chains, will or may reasonably be anticipated to cause death, disease, behavioral abnormalities, cancer, genetic mutation, physiological malfunctions (including malfunctions in reproduction) or physical deformations in such persons or their offspring.

[C] Any substance listed by the U.S. Department of Transportation as hazardous materials under 49 CFR 172.101 and appendices; and

[D] Hazardous waste as herein defined.

"Hazardous waste" means -

[A] A waste or combination of wastes as defined in 40 CFR 261.3, or

[B] Those substances defined as hazardous wastes in 49 CFR 171.8.

"Hazardous waste operation" means any operation conducted within the scope of this standard.

"Hazardous waste site" or "Site" means any facility or location within the scope of this standard at which hazardous waste operations take place.

"Health hazard" means a chemical, mixture of chemicals or a pathogen for which there is statistically significant evidence based on at least one study conducted in accordance with established scientific principles that acute or chronic health effects may occur in exposed employees. The term "health hazard" includes chemicals which are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, sensitizers, hepatotoxins, nephrotoxins, neurotoxins, agents which act on the hematopoietic system, and agents which damage the lungs, skin, eyes, or mucous membranes. It also includes stress due to temperature extremes. Further definition of the terms used above can be found in Appendix A to 29 CFR 1910.1200.

"IDLH" or "Immediately dangerous to life or health" means an atmospheric concentration of any toxic, corrosive or asphyxiant substance that poses an immediate threat to life or would interfere with an individual's ability to escape from a dangerous atmosphere.

"Oxygen deficiency" means that concentration of oxygen by volume below which atmosphere supplying respiratory protection must be provided. It exists in atmospheres where the percentage of oxygen by volume is less than 19.5 percent oxygen.

"Permissible exposure limit" means the exposure, inhalation or dermal permissible exposure limit specified in 29 CFR Part 1910, Subparts G and Z.

"Published exposure level" means the exposure limits published in "NIOSH Recommendations for Occupational Health Standards" dated 1986, which is incorporated by reference as specified in Sec. 1910.6, or if none is specified, the exposure limits published in the standards specified by the American Conference of Governmental Industrial Hygienists in their publication "Threshold Limit Values and Biological Exposure Indices for 1987 - 88" dated 1987, which is incorporated by reference as specified in Sec. 1910.6.

"Post emergency response" means that portion of an emergency response performed after the immediate threat of a release has been stabilized or eliminated and clean-up of the site has begun. If post emergency

response is performed by an employer's own employees who were part of the initial emergency response, it is considered to be part of the initial response and not post emergency response. However, if a group of an employer's own employees, separate from the group providing initial response, performs the clean-up operation, then the separate group of employees would be considered to be performing post-emergency response and subject to paragraph (q)(11) of this section.

"Qualified person" means a person with specific training, knowledge and experience in the area for which the person has the responsibility and the authority to control.

"Site safety and health supervisor (or official" means the individual located on a hazardous waste site who is responsible to the employer and has the authority and knowledge necessary to implement the site safety and health plan and verify compliance with applicable safety and health requirements.

"Small quantity generator" means a generator of hazardous wastes who in any calendar month generates no more than 1,000 kilograms (2,205) pounds of hazardous waste in that month.

"Uncontrolled hazardous waste site" means an area identified as an uncontrolled hazardous waste site by a governmental body, whether Federal, state, local or other where an accumulation of hazardous substances creates a threat to the health and safety of individuals or the environment or both. Some sites are found on public lands such as those created by former municipal, county or state landfills where illegal or poorly managed waste disposal has taken place. Other sites are found on private property, often belonging to generators or former generators of hazardous substance wastes. Examples of such sites include, but are not limited to, surface impoundments, landfills, dumps, and tank or drum farms. Normal operations at TSD sites are not covered by this definition.

(b)

Safety and health program.

NOTE TO (b): Safety and health programs developed and implemented to meet other federal, state, or local regulations are considered acceptable in meeting this requirement if they cover or are modified to cover the topics required in this paragraph. An additional or separate safety and health program is not required by this paragraph.

(b)(1)

General.

(b)(1)(i)

Employers shall develop and implement a written safety and health program for their employees involved in hazardous waste operations. The program shall be designed to identify, evaluate, and control safety

and health hazards, and provide for emergency response for hazardous waste operations.

(b)(1)(ii)

The written safety and health program shall incorporate the following:

(b)(1)(ii)(A)

An organizational structure;

(b)(1)(ii)(B)

A comprehensive workplan;

..1910.120(b)(1)(ii)(C)

(b)(1)(ii)(C)

A site-specific safety and health plan which need not repeat the employer's standard operating procedures required in paragraph (b)(1)(ii)(F) of this section;

(b)(1)(ii)(D)

The safety and health training program;

(b)(1)(ii)(E)

The medical surveillance program;

(b)(1)(ii)(F)

The employer's standard operating procedures for safety and health; and

(b)(1)(ii)(G)

Any necessary interface between general program and site specific activities.

(b)(1)(iii)

Site excavation. Site excavations created during initial site preparation or during hazardous waste operations shall be shored or sloped as appropriate to prevent accidental collapse in accordance with

Subpart P of 29 CFR Part 1926.

(b)(1)(iv)

Contractors and sub-contractors. An employer who retains contractor or sub-contractor services for work in hazardous waste operations shall inform those contractors, sub-contractors, or their representatives of the site emergency response procedures and any potential fire, explosion, health, safety or other hazards of the hazardous waste operation that have been identified by the employer's information program.

..1910.120(b)(1)(v)

(b)(1)(v)

Program availability. The written safety and health program shall be made available to any contractor or subcontractor or their representative who will be involved with the hazardous waste operation; to employees; to employee designated representatives; to OSHA personnel, and to personnel of other Federal, state, or local agencies with regulatory authority over the site.

(b)(2)

Organizational structure part of the site program. -

(b)(2)(i)

The organizational structure part of the program shall establish the specific chain of command and specify the overall responsibilities of supervisors and employees. It shall include, at a minimum, the following elements:

(b)(2)(i)(A)

A general supervisor who has the responsibility and authority to direct all hazardous waste operations.

(b)(2)(i)(B)

A site safety and health supervisor who has the responsibility and authority to develop and implement the site safety and health plan and verify compliance.

(b)(2)(i)(C)

All other personnel needed for hazardous waste site operations and emergency response and their general functions and responsibilities.

(b)(2)(i)(D)

The lines of authority, responsibility, and communication.

(b)(2)(ii)

The organizational structure shall be reviewed and updated as necessary to reflect the current status of waste site operations.

..1910.120(b)(3)

(b)(3)

Comprehensive workplan part of the site program. The comprehensive workplan part of the program shall address the tasks and objectives of the site operations and the logistics and resources required to reach those tasks and objectives.

(b)(3)(i)

The comprehensive workplan shall define anticipated clean-up activities as well as normal operating procedures which need not repeat the employer's procedures available elsewhere.

(b)(3)(ii)

The comprehensive workplan shall define work tasks and objectives and identify the methods for accomplishing those tasks and objectives.

(b)(3)(iii)

The comprehensive workplan shall establish personnel requirements for implementing the plan.

(b)(3)(iv)

The comprehensive workplan shall provide for the implementation of the training required in paragraph (e) of this section.

(b)(3)(v)

The comprehensive workplan shall provide for the implementation of the required informational programs required in paragraph (i) of this section.

(b)(3)(vi)

The comprehensive workplan shall provide for the implementation of the medical surveillance program described in paragraph (f) if this section.

..1910.120(b)(4)

(b)(4)

Site-specific safety and health plan part of the program. -

(b)(4)(i)

General. The site safety and health plan, which must be kept on site, shall address the safety and health hazards of each phase of site operation and include the requirements and procedures for employee protection.

(b)(4)(ii)

Elements. The site safety and health plan, as a minimum, shall address the following:

(b)(4)(ii)(A)

A safety and health risk or hazard analysis for each site task and operation found in the workplan.

(b)(4)(ii)(B)

Employee training assignments to assure compliance with paragraph (e) of this section.

(b)(4)(ii)(C)

Personal protective equipment to be used by employees for each of the site tasks and operations being conducted as required by the personal protective equipment program in paragraph (g)(5) of this section.

(b)(4)(ii)(D)

Medical surveillance requirements in accordance with the program in paragraph (f) of this section.

(b)(4)(ii)(E)

Frequency and types of air monitoring, personnel monitoring, and environmental sampling techniques

and instrumentation to be used, including methods of maintenance and calibration of monitoring and sampling equipment to be used.

..1910.120(b)(4)(ii)(F)

(b)(4)(ii)(F)

Site control measures in accordance with the site control program required in paragraph (d) of this section.

(b)(4)(ii)(G)

Decontamination procedures in accordance with paragraph (k) of this section.

(b)(4)(ii)(H)

An emergency response plan meeting the requirements of paragraph (l) of this section for safe and effective responses to emergencies, including the necessary PPE and other equipment.

(b)(4)(ii)(I)

Confined space entry procedures.

(b)(4)(ii)(J)

A spill containment program meeting the requirements of paragraph (j) of this section.

(b)(4)(iii)

Pre-entry briefing. The site specific safety and health plan shall provide for pre-entry briefings to be held prior to initiating any site activity, and at such other times as necessary to ensure that employees are apprised of the site safety and health plan and that this plan is being followed. The information and data obtained from site characterization and analysis work required in paragraph (c) of this section shall be used to prepare and update the site safety and health plan.

..1910.120(b)(4)(iv)

(b)(4)(iv)

Effectiveness of site safety an health plan. Inspections shall be conducted by the site safety and health supervisor or, in the absence of that individual, another individual who is knowledgeable in occupational safety and health, acting on behalf of the employer as necessary to determine the effectiveness of the site

safety and health plan. Any deficiencies in the effectiveness of the site safety and health plan shall be corrected by the employer.

(c)

Site characterization and analysis -

(c)(1)

General. Hazardous waste sites shall be evaluated in accordance with this paragraph to identify specific site hazards and to determine the appropriate safety and health control procedures needed to protect employees from the identified hazards.

(c)(2)

Preliminary evaluation. A preliminary evaluation of a site's characteristics shall be performed prior to site entry by a qualified person in order to aid in the selection of appropriate employee protection methods prior to site entry. Immediately after initial site entry, a more detailed evaluation of the site's specific characteristics shall be performed by a qualified person in order to further identify existing site hazards and to further aid in the selection of the appropriate engineering controls and personal protective equipment for the tasks to be performed.

..1910.120(c)(3)

(c)(3)

Hazard identification. All suspected conditions that may pose inhalation or skin absorption hazards that are immediately dangerous to life or health (IDLH) or other conditions that may cause death or serious harm shall be identified during the preliminary survey and evaluated during the detailed survey.

Examples of such hazards include, but are not limited to, confined space entry, potentially explosive or flammable situations, visible vapor clouds, or areas where biological indicators such as dead animals or vegetation are located.

(c)(4)

Required information. The following information to the extent available shall be obtained by the employer prior to allowing employees to enter a site:

(c)(4)(i)

Location and approximate size of the site.

(c)(4)(ii)

Description of the response activity and/or the job task to be performed.

(c)(4)(iii)

Duration of the planned employee activity.

(c)(4)(iv)

Site topography and accessibility by air and roads.

(c)(4)(v)

Safety and health hazards expected at the site.

(c)(4)(vi)

Pathways for hazardous substance dispersion.

(c)(4)(vii)

Present status and capabilities of emergency response teams that would provide assistance to on-site employees at the time of an emergency.

(c)(4)(viii)

Hazardous substances and health hazards involved or expected at the site and their chemical and physical properties.

..1910.120(c)(5)

(c)(5)

Personal protective equipment (PPE) shall be provided and used during initial site entry in accordance with the following requirements:

(c)(5)(i)

Based upon the results of the preliminary site evaluation, an ensemble of PPE shall be selected and used during initial site entry which will provide protection to a level of exposure below permissible exposure

limits and published exposure levels for known or suspected hazardous substances and health hazards and which will provide protection against other known and suspected hazards identified during the preliminary site evaluation. If there is no permissible exposure limit or published exposure level, the employer may use other published studies and information as a guide to appropriate personal protective equipment.

(c)(5)(ii)

If positive-pressure self-contained breathing apparatus is not used as part of the entry ensemble, and if respiratory protection is warranted by the potential hazards identified during the preliminary site evaluation, an escape self-contained breathing apparatus of at least five minute's duration shall be carried by employees during initial site entry.

..1910.120(c)(5)(iii)

(c)(5)(iii)

If the preliminary site evaluation does not produce sufficient information to identify the hazards or suspected hazards of the site an ensemble providing equivalent to Level B PPE shall be provided as minimum protection, and direct reading instruments shall be used as appropriate for identifying IDLH conditions. (See Appendix B for guidelines on Level B protective equipment.)

(c)(5)(iv)

Once the hazards of the site have been identified, the appropriate PPE shall be selected and used in accordance with paragraph (g) of this section.

(c)(6)

Monitoring. The following monitoring shall be conducted during initial site entry when the site evaluation produces information which shows the potential for ionizing radiation or IDLH conditions, or when the site information is not sufficient reasonably to eliminate these possible conditions:

(c)(6)(i)

Monitoring with direct reading instruments for hazardous levels of ionizing radiation.

(c)(6)(ii)

Monitoring the air with appropriate direct reading test equipment for (i.e., combustible gas meters, detector tubes) for IDLH and other conditions that may cause death or serious harm (combustible or explosive atmospheres, oxygen deficiency, toxic substances.)

(c)(6)(iii)

Visually observing for signs of actual or potential IDLH or other dangerous conditions.

..1910.120(c)(6)(iv)

(c)(6)(iv)

An ongoing air monitoring program in accordance with paragraph (h) of this section shall be implemented after site characterization has determined the site is safe for the start-up of operations.

(c)(7)

Risk identification. Once the presence and concentrations of specific hazardous substances and health hazards have been established, the risks associated with these substances shall be identified. Employees who will be working on the site shall be informed of any risks that have been identified. In situations covered by the Hazard Communication Standard, 29 CFR 1910.1200, training required by that standard need not be duplicated.

NOTE TO (c)(7). - Risks to consider include, but are not limited to:

- [a] Exposures exceeding the permissible exposure limits and published exposure levels.
- [b] IDLH Concentrations.
- [c] Potential Skin Absorption and Irritation Sources.
- [d] Potential Eye Irritation Sources.
- [e] Explosion Sensitivity and Flammability Ranges.
- [f] Oxygen deficiency.

(c)(8)

Employee notification. Any information concerning the chemical, physical, and toxicologic properties of each substance known or expected to be present on site that is available to the employer and relevant to the duties an employee is expected to perform shall be made available to the affected employees prior to

the commencement of their work activities. The employer may utilize information developed for the hazard communication standard for this purpose.

(d)

Site control.-

(d)(1)

General. Appropriate site control procedures shall be implemented to control employee exposure to hazardous substances before clean-up work begins.

..1910.120(d)(2)

(d)(2)

Site control program. A site control program for protecting employees which is part of the employer's site safety and health program required in paragraph (b) of this section shall be developed during the planning stages of a hazardous waste clean-up operation and modified as necessary as new information becomes available.

(d)(3)

Elements of the site control program. The site control program shall, as a minimum, include: A site map; site work zones; the use of a "buddy system"; site communications including alerting means for emergencies; the standard operating procedures or safe work practices; and, identification of the nearest medical assistance. Where these requirements are covered elsewhere they need not be repeated.

(e)

Training. -

(e)(1)

General.

(e)(1)(i)

All employees working on site (such as but not limited to equipment operators, general laborers and others) exposed to hazardous substances, health hazards, or safety hazards and their supervisors and management responsible for the site shall receive training meeting the requirements of this paragraph before they are permitted to engage in hazardous waste operations that could expose them to hazardous

substances, safety, or health hazards, and they shall receive review training as specified in this paragraph.

(e)(1)(ii)

Employees shall not be permitted to participate in or supervise field activities until they have been trained to a level required by their job function and responsibility.

..1910.120(e)(2)

(e)(2)

Elements to be covered. The training shall thoroughly cover the following:

(e)(2)(i)

Names of personnel and alternates responsible for site safety and health;

(e)(2)(ii)

Safety, health and other hazards present on the site;

(e)(2)(iii)

Use of PPE;

(e)(2)(iv)

Work practices by which the employee can minimize risks from hazards;

(e)(2)(v)

Safe use of engineering controls and equipment on the site;

(e)(2)(vi)

Medical surveillance requirements including recognition of symptoms and signs which might indicate over exposure to hazards; and

(e)(2)(vii)

The contents of paragraphs (G) through (J) of the site safety and health plan set forth in paragraph

(b)(4)(ii) of this section.

..1910.120(e)(3)

(e)(3)

Initial training.

(e)(3)(i)

General site workers (such as equipment operators, general laborers and supervisory personnel) engaged in hazardous substance removal or other activities which expose or potentially expose workers to hazardous substances and health hazards shall receive a minimum of 40 hours of instruction off the site, and a minimum of three days actual field experience under the direct supervision of a trained experienced supervisor.

(e)(3)(ii)

Workers on site only occasionally for a specific limited task (such as, but not limited to, ground water monitoring, land surveying, or geophysical surveying) and who are unlikely to be exposed over permissible exposure limits and published exposure limits shall receive a minimum of 24 hours of instruction off the site, and the minimum of one day actual field experience under the direct supervision of a trained, experienced supervisor.

(e)(3)(iii)

Workers regularly on site who work in areas which have been monitored and fully characterized indicating that exposures are under permissible exposure limits and published exposure limits where respirators are not necessary, and the characterization indicates that there are no health hazards or the possibility of an emergency developing, shall receive a minimum of 24 hours of instruction off the site, and the minimum of one day actual field experience under the direct supervision of a trained, experienced supervisor.

(e)(3)(iv)

Workers with 24 hours of training who are covered by paragraphs (e)(3)(ii) and (e)(3)(iii) of this section, and who become general site workers or who are required to wear respirators, shall have the additional 16 hours and two days of training necessary to total the training specified in paragraph (e)(3)(i).

..1910.120(e)(4)

(e)(4)

Management and supervisor training. On-site management and supervisors directly responsible for or who supervise employees engaged in hazardous waste operations shall receive 40 hours initial and three days of supervised field experience (the training may be reduced to 24 hours and one day if the only area of their responsibility is employees covered by paragraphs (e)(3)(ii) and (e)(3)(iii) and at least eight additional hours of specialized training at the time of job assignment on such topics as, but no limited to, the employer's safety and health program, personal protective equipment program, spill containment program, and health hazard monitoring procedure and techniques.

(e)(5)

Qualifications for trainers. Trainers shall be qualified to instruct employees about the subject matter that is being presented in training. Such trainers shall have satisfactorily completed a training program for teaching the subjects they are expected to teach, or they shall have the academic credentials and instructional experience necessary for teaching the subjects. Instructors shall demonstrate competent instructional skills and knowledge of the applicable subject matter.

(e)(6)

Training certification. Employees and supervisors that have received and successfully completed the training and field experience specified in paragraphs (e)(1) through (e)(4) of this section shall be certified by their instructor or the head instructor and trained supervisor as having completed the necessary training. A written certificate shall be given to each person so certified. Any person who has not been so certified or who does not meet the requirements of paragraph (e)(9) of this section shall be prohibited from engaging in hazardous waste operations.

(e)(7)

Emergency response. Employees who are engaged in responding to hazardous emergency situations at hazardous waste clean-up sites that may expose them to hazardous substances shall be trained in how to respond to such expected emergencies.

..1910.120(e)(8)

(e)(8)

Refresher training. Employees specified in paragraph (e)(1) of this section, and managers and supervisors specified in paragraph (e)(4) of this section, shall receive eight hours of refresher training annually on the items specified in paragraph (e)(2) and/or (e)(4) of this section, any critique of incidents that have occurred in the past year that can serve as training examples of related work, and other relevant topics.

(e)(9)

Equivalent training. Employers who can show by documentation or certification that an employee's work experience and/or training has resulted in training equivalent to that training required in paragraphs (e)(1) through (e)(4) of this section shall not be required to provide the initial training requirements of those paragraphs to such employees and shall provide a copy of the certification or documentation to the employee upon request. However, certified employees or employees with equivalent training new to a site shall receive appropriate, site specific training before site entry and have appropriate supervised field experience at the new site. Equivalent training includes any academic training or the training that existing employees might have already received from actual hazardous waste site experience.

(f)

Medical surveillance -

(f)(1)

General. Employees engaged in operations specified in paragraphs (a)(1)(i) through (a)(1)(iv) of this section and not covered by (a)(2)(iii) exceptions and employers of employees specified in paragraph (q)(9) shall institute a medical surveillance program in accordance with this paragraph.

(f)(2)

Employees covered. The medical surveillance program shall be instituted by the employer for the following employees:

..1910.120(f)(2)(i)

(f)(2)(i)

All employees who are or may be exposed to hazardous substances or health hazards at or above the established permissible exposure limit, above the published exposure levels for these substances, without regard to the use of respirators, for 30 days or more a year;

(f)(2)(ii)

All employees who wear a respirator for 30 days or more a year or as required by 1910.134;

(f)(2)(iii)

All employees who are injured, become ill or develop signs or symptoms due to possible overexposure involving hazardous substances or health hazards from an emergency response or hazardous waste operation; and

(f)(2)(iv)

Members of HAZMAT teams.

(f)(3)

Frequency of medical examinations and consultations. Medical examinations and consultations shall be made available by the employer to each employee covered under paragraph (f)(2) of this section on the following schedules:

(f)(3)(i)

For employees covered under paragraphs (f)(2)(i), (f)(2)(ii), and (f)(2)(iv);

(f)(3)(i)(A)

Prior to assignment;

(f)(3)(i)(B)

At least once every twelve months for each employee covered unless the attending physician believes a longer interval (not greater than biennially) is appropriate;

..1910.120(f)(3)(i)(C)

(f)(3)(i)(C)

At termination of employment or reassignment to an area where the employee would not be covered if the employee has not had an examination within the last six months.

(f)(3)(i)(D)

As soon as possible upon notification by an employee that the employee has developed signs or symptoms indicating possible overexposure to hazardous substances or health hazards, or that the employee has been injured or exposed above the permissible exposure limits or published exposure levels in an emergency situation;

(f)(3)(i)(E)

At more frequent times, if the examining physician determines that an increased frequency of examination is medically necessary.

(f)(3)(ii)

For employees covered under paragraph (f)(2)(iii) and for all employees including of employers covered by paragraph (a)(1)(iv) who may have been injured, received a health impairment, developed signs or symptoms which may have resulted from exposure to hazardous substances resulting from an emergency incident, or exposed during an emergency incident to hazardous substances at concentrations above the permissible exposure limits or the published exposure levels without the necessary personal protective equipment being used:

(f)(3)(ii)(A)

As soon as possible following the emergency incident or development of signs or symptoms;

..1910.120(f)(3)(ii)(B)

(f)(3)(ii)(B)

At additional times, if the examining physician determines that follow-up examinations or consultations are medically necessary.

(f)(4)

Content of medical examinations and consultations.

(f)(4)(i)

Medical examinations required by paragraph (f)(3) of this section shall include a medical and work history (or updated history if one is in the employee's file) with special emphasis on symptoms related to the handling of hazardous substances and health hazards, and to fitness for duty including the ability to wear any required PPE under conditions (i.e., temperature extremes) that may be expected at the work site.

(f)(4)(ii)

The content of medical examinations or consultations made available to employees pursuant to paragraph (f) shall be determined by the attending physician. The guidelines in the Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities (See Appendix D, reference # 10) should be consulted.

(f)(5)

Examination by a physician and costs. All medical examinations and procedures shall be performed by or

under the supervision of a licensed physician, preferably one knowledgeable in occupational medicine, and shall be provided without cost to the employee, without loss of pay, and at a reasonable time and place.

..1910.120(f)(6)

(f)(6)

Information provided to the physician. The employer shall provide one copy of this standard and its appendices to the attending physician and in addition the following for each employee:

(f)(6)(i)

A description of the employee's duties as they relate to the employee's exposures,

(f)(6)(ii)

The employee's exposure levels or anticipated exposure levels.

(f)(6)(iii)

A description of any personal protective equipment used or to be used.

(f)(6)(iv)

Information from previous medical examinations of the employee which is not readily available to the examining physician.

(f)(6)(v)

Information required by 1910.134.

(f)(7)

Physician's written opinion.

(f)(7)(i)

The employer shall obtain and furnish the employee with a copy of a written opinion from the examining physician containing the following:

(f)(7)(i)(A)

The physician's opinion as to whether the employee has any detected medical conditions which would place the employee at increased risk of material impairment of the employee's health from work in hazardous waste operations or emergency response, or from respirator use.

..1910.120(f)(7)(i)(B)

(f)(7)(i)(B)

The physician's recommended limitations upon the employees assigned work.

(f)(7)(i)(C)

The results of the medical examination and tests if requested by the employee.

(f)(7)(i)(D)

A statement that the employee has been informed by the physician of the results of the medical examination and any medical conditions which require further examination or treatment.

(f)(7)(ii)

The written opinion obtained by the employer shall not reveal specific findings or diagnoses unrelated to occupational exposure.

(f)(8)

Recordkeeping.

(f)(8)(i)

An accurate record of the medical surveillance required by paragraph (f) of this section shall be retained. This record shall be retained for the period specified and meet the criteria of 29 CFR 1910.20.

(f)(8)(ii)

The record required in paragraph (f)(8)(i) of this section shall include at least the following information:

(f)(8)(ii)(A)

The name and social security number of the employee;

(f)(8)(ii)(B)

Physicians' written opinions, recommended limitations and results of examinations and tests;

..1910.120(f)(8)(ii)(C)

(f)(8)(ii)(C)

Any employee medical complaints related to exposure to hazardous substances;

(f)(8)(ii)(D)

A copy of the information provided to the examining physician by the employer, with the exception of the standard and its appendices.

(g)

Engineering controls, work practices, and personal protective equipment for employee protection. Engineering controls, work practices and PPE for substances regulated in Subpart Z. (i) Engineering controls, work practices, personal protective equipment, or a combination of these shall be implemented in accordance with this paragraph to protect employees from exposure to hazardous substances and safety and health hazards.

(g)(1)

Engineering controls, work practices and PPE for substances regulated in Subparts G and Z.

(g)(1)(i)

Engineering controls and work practices shall be instituted to reduce and maintain employee exposure to or below the permissible exposure limits for substances regulated by 29 CFR Part 1910, to the extent required by Subpart Z, except to the extent that such controls and practices are not feasible.

NOTE TO (g)(1)(i): Engineering controls which may be feasible include the use of pressurized cabs or control booths on equipment, and/or the use of remotely operated material handling equipment. Work practices which may be feasible are removing all non-essential employees from potential exposure during opening of drums, wetting down dusty operations and locating employees upwind of possible hazards.

..1910.120(g)(1)(ii)

(g)(1)(ii)

Whenever engineering controls and work practices are not feasible, or not required, any reasonable combination of engineering controls, work practices and PPE shall be used to reduce and maintain to or below the permissible exposure limits or dose limits for substances regulated by 29 CFR Part 1910, Subpart Z.

(g)(1)(iii)

The employer shall not implement a schedule of employee rotation as a means of compliance with permissible exposure limits or dose limits except when there is no other feasible way of complying with the airborne or dermal dose limits for ionizing radiation.

(g)(2)

Engineering controls, work practices, and PPE for substances not regulated in Subparts G and Z. An appropriate combination of engineering controls, work practices, and personal protective equipment shall be used to reduce and maintain employee exposure to or below published exposure levels for hazardous substances and health hazards not regulated by 29 CFR Part 1910, Subparts G and Z. The employer may use the published literature and MSDS as a guide in making the employer's determination as to what level of protection the employer believes is appropriate for hazardous substances and health hazards for which there is no permissible exposure limit or published exposure limit.

(g)(3)

Personal protective equipment selection.

(g)(3)(i)

Personal protective equipment (PPE) shall be selected and used which will protect employees from the hazards and potential hazards they are likely to encounter as identified during the site characterization and analysis.

..1910.120(g)(3)(ii)

(g)(3)(ii)

Personal protective equipment selection shall be based on an evaluation of the performance characteristics of the PPE relative to the requirements and limitations of the site, the task-specific conditions and duration, and the hazards and potential hazards identified at the site.

(g)(3)(iii)

Positive pressure self-contained breathing apparatus, or positive pressure air-line respirators equipped with an escape air supply shall be used when chemical exposure levels present will create a substantial possibility of immediate death, immediate serious illness or injury, or impair the ability to escape.

(g)(3)(iv)

Totally-encapsulating chemical protective suits (protection equivalent to Level A protection as recommended in Appendix B) shall be used in conditions where skin absorption of a hazardous substance may result in a substantial possibility of immediate death, immediate serious illness or injury, or impair the ability to escape.

(g)(3)(v)

The level of protection provided by PPE selection shall be increased when additional information or site conditions show that increased protection is necessary to reduce employee exposures below permissible exposure limits and published exposure levels for hazardous substances and health hazards. (See Appendix B for guidance on selecting PPE ensembles.)

NOTE TO (g)(3): The level of employee protection provided may be decreased when additional information or site conditions show that decreased protection will not result in hazardous exposures to employees.

(g)(3)(vi)

Personal protective equipment shall be selected and used to meet the requirements of 29 CFR Part 1910, Subpart I, and additional requirements specified in this section.

..1910.120(g)(4)

(g)(4)

Totally-encapsulating chemical protective suits.

(g)(4)(i)

Totally-encapsulating suits shall protect employees from the particular hazards which are identified during site characterization and analysis.

(g)(4)(ii)

Totally-encapsulating suits shall be capable of maintaining positive air pressure. (See Appendix A for a

test method which may be used to evaluate this requirement.)

(g)(4)(iii)

Totally-encapsulating suits shall be capable of preventing inward test gas leakage of more than 0.5 percent. (See Appendix A for a test method which may be used to evaluate this requirement.)

(g)(5)

Personal protective equipment (PPE) program. A personal protective equipment program, which is part of the employer's safety and health program required in paragraph (b) of this section or required in paragraph (p)(1) of this section and which is also a part of the site-specific safety and health plan shall be established. The PPE program shall address the elements listed below. When elements, such as donning and doffing procedures, are provided by the manufacturer of a piece of equipment and are attached to the plan, they need not be rewritten into the plan as long as they adequately address the procedure or element.

(g)(5)(i)

PPE selection based upon site hazards,

(g)(5)(ii)

PPE use and limitations of the equipment,

..1910.120(g)(5)(iii)

(g)(5)(iii)

Work mission duration,

(g)(5)(iv)

PPE maintenance and storage,

(g)(5)(v)

PPE decontamination and disposal,

(g)(5)(vi)

PPE training and proper fitting,

(g)(5)(vii)

PPE donning and doffing procedures,

(g)(5)(viii)

PPE inspection procedures prior to, during, and after use,

(g)(5)(ix)

Evaluation of the effectiveness of the PPE program, and

(g)(5)(x)

Limitations during temperature extremes, heat stress, and other appropriate medical considerations.

..1910.120(h)

(h)

Monitoring. -

(h)(1)

General.

(h)(1)(i)

Monitoring shall be performed in accordance with this paragraph where there may be a question of employee exposure to hazardous concentrations of hazardous substances in order to assure proper selection of engineering controls, work practices and personal protective equipment so that employees are not exposed to levels which exceed permissible exposure limits, or published exposure levels if there are no permissible exposure limits, for hazardous substances.

(h)(1)(ii)

Air monitoring shall be used to identify and quantify airborne levels of hazardous substances and safety and health hazards in order to determine the appropriate level of employee protection needed on site.

(h)(2)

Initial entry. Upon initial entry, representative air monitoring shall be conducted to identify any IDLH condition, exposure over permissible exposure limits or published exposure levels, exposure over a radioactive material's dose limits or other dangerous condition such as the presence of flammable atmospheres, oxygen-deficient environments.

(h)(3)

Periodic monitoring. Periodic monitoring shall be conducted when the possibility of an IDLH condition or flammable atmosphere has developed or when there is indication that exposures may have risen over permissible exposure limits or published exposure levels since prior monitoring. Situations where it shall be considered whether the possibility that exposures have risen are as follows:

(h)(3)(i)

When work begins on a different portion of the site.

(h)(3)(ii)

When contaminants other than those previously identified are being handled.

..1910.120(h)(3)(iii)

(h)(3)(iii)

When a different type of operation is initiated (e.g., drum opening as opposed to exploratory well drilling.)

(h)(3)(iv)

When employees are handling leaking drums or containers or working in areas with obvious liquid contamination (e.g., a spill or lagoon.)

(h)(4)

Monitoring of high-risk employees. After the actual clean-up phase of any hazardous waste operation commences; for example, when soil, surface water or containers are moved or disturbed; the employer shall monitor those employees likely to have the highest exposures to those hazardous substances and health hazards likely to be present above permissible exposure limits or published exposure levels by using personal sampling frequently enough to characterize employee exposures. The employer may utilize a representative sampling approach by documenting that the employees and chemicals chosen for monitoring are based on the criteria stated in the first sentence of this paragraph. If the employees likely to have the highest exposure are over permissible exposure limits or published exposure limits, then

monitoring shall continue to determine all employees likely to be above those limits. The employer may utilize a representative sampling approach by documenting that the employees and chemicals chosen for monitoring are based on the criteria stated above.

NOTE TO (h): It is not required to monitor employees engaged in site characterization operations covered by paragraph (c) of this section.

..1910.120(i)

(i)

Informational programs. Employers shall develop and implement a program which is part of the employer's safety and health program required in paragraph (b) of this section to inform employees, contractors, and subcontractors (or their representative) actually engaged in hazardous waste operations of the nature, level and degree of exposure likely as a result of participation in such hazardous waste operations. Employees, contractors and subcontractors working outside of the operations part of a site are not covered by this standard.

(j)

Handling drums and containers -

(j)(1)

General.

(j)(1)(i)

Hazardous substances and contaminated, liquids and other residues shall be handled, transported, labeled, and disposed of in accordance with this paragraph.

(j)(1)(ii)

Drums and containers used during the clean-up shall meet the appropriate DOT, OSHA, and EPA regulations for the wastes that they contain.

(j)(1)(iii)

When practical, drums and containers shall be inspected and their integrity shall be assured prior to being moved. Drums or containers that cannot be inspected before being moved because of storage conditions (i.e., buried beneath the earth, stacked behind other drums, stacked several tiers high in a pile, etc.) shall be moved to an accessible location and inspected prior to further handling.

(j)(1)(iv)

Unlabeled drums and containers shall be considered to contain hazardous substances and handled accordingly until the contents are positively identified and labeled.

(j)(1)(v)

Site operations shall be organized to minimize the amount of drum or container movement.

..1910.120(j)(1)(vi)

(j)(1)(vi)

Prior to movement of drums or containers, all employees exposed to the transfer operation shall be warned of the potential hazards associated with the contents of the drums or containers.

(j)(1)(vii)

U.S. Department of Transportation specified salvage drums or containers and suitable quantities of proper absorbent shall be kept available and used in areas where spills, leaks, or ruptures may occur.

(j)(1)(viii)

Where major spills may occur, a spill containment program, which is part of the employer's safety and health program required in paragraph (b) of this section, shall be implemented to contain and isolate the entire volume of the hazardous substance being transferred.

(j)(1)(ix)

Drums and containers that cannot be moved without rupture, leakage, or spillage shall be emptied into a sound container using a device classified for the material being transferred.

(j)(1)(x)

A ground-penetrating system or other type of detection system or device shall be used to estimate the location and depth of buried drums or containers.

(j)(1)(xi)

Soil or covering material shall be removed with caution to prevent drum or container rupture.

..1910.120(j)(1)(xii)

(j)(1)(xii)

Fire extinguishing equipment meeting the requirements of 29 CFR Part 1910, Subpart L, shall be on hand and ready for use to control incipient fires.

(j)(2)

Opening drums and containers. The following procedures shall be followed in areas where drums or containers are being opened:

(j)(2)(i)

Where an airline respirator system is used, connections to the source of air supply shall be protected from contamination and the entire system shall be protected from physical damage.

(j)(2)(ii)

Employees not actually involved in opening drums or containers shall be kept a safe distance from the drums or containers being opened.

(j)(2)(iii)

If employees must work near or adjacent to drums or containers being opened, a suitable shield that does not interfere with the work operation shall be placed between the employee and the drums or containers being opened to protect the employee in case of accidental explosion.

(j)(2)(iv)

Controls for drum or container opening equipment, monitoring equipment, and fire suppression equipment shall be located behind the explosion-resistant barrier.

..1910.120(j)(2)(v)

(j)(2)(v)

When there is a reasonable possibility of flammable atmospheres being present, material handling equipment and hand tools shall be of the type to prevent sources of ignition.

(j)(2)(vi)

Drums and containers shall be opened in such a manner that excess interior pressure will be safely relieved. If pressure cannot be relieved from a remote location, appropriate shielding shall be placed between the employee and the drums or containers to reduce the risk of employee injury.

(j)(2)(vii)

Employees shall not stand upon or work from drums or containers.

(j)(3)

Material handling equipment. Material handling equipment used to transfer drums and containers shall be selected, positioned and operated to minimize sources of ignition related to the equipment from igniting vapors released from ruptured drums or containers.

(j)(4)

Radioactive wastes. Drums and containers containing radioactive wastes shall not be handled until such time as their hazard to employees is properly assessed.

(j)(5)

Shock sensitive wastes. As a minimum, the following special precautions shall be taken when drums and containers containing or suspected of containing shock-sensitive wastes are handled:

..1910.120(j)(5)(i)

(j)(5)(i)

All non-essential employees shall be evacuated from the area of transfer.

(j)(5)(ii)

Material handling equipment shall be provided with explosive containment devices or protective shields to protect equipment operators from exploding containers.

(j)(5)(iii)

An employee alarm system capable of being perceived above surrounding light and noise conditions shall be used to signal the commencement and completion of explosive waste handling activities.

(j)(5)(iv)

Continuous communications (i.e., portable radios, hand signals, telephones, as appropriate) shall be maintained between the employee-in-charge of the immediate handling area and both the site safety and health supervisor and the command post until such time as the handling operation is completed. Communication equipment or methods that could cause shock sensitive materials to explode shall not be used.

(j)(5)(v)

Drums and containers under pressure, as evidenced by bulging or swelling, shall not be moved until such time as the cause for excess pressure is determined and appropriate containment procedures have been implemented to protect employees from explosive relief of the drum.

..1910.120(j)(5)(vi)

(j)(5)(vi)

Drums and containers containing packaged laboratory wastes shall be considered to contain shock-sensitive or explosive materials until they have been characterized.

Caution: Shipping of shock sensitive wastes may be prohibited under U.S. Department of Transportation regulations. Employers and their shippers should refer to 49 CFR 173.21 and 173.50.

(j)(6)

Laboratory waste packs. In addition to the requirements of paragraph (j)(5) of this section, the following precautions shall be taken, as a minimum, in handling laboratory waste packs (lab packs):

(j)(6)(i)

Lab packs shall be opened only when necessary and then only by an individual knowledgeable in the inspection, classification, and segregation of the containers within the pack according to the hazards of the wastes.

(j)(6)(ii)

If crystalline material is noted on any container, the contents shall be handled as a shock-sensitive waste until the contents are identified.

(j)(7)

Sampling of drum and container contents. Sampling of containers and drums shall be done in accordance

with a sampling procedure which is part of the site safety and health plan developed for and available to employees and others at the specific worksite.

(j)(8)

Shipping and transport.

(j)(8)(i)

Drums and containers shall be identified and classified prior to packaging for shipment.

..1910.120(j)(8)(ii)

(j)(8)(ii)

Drum or container staging areas shall be kept to the minimum number necessary to safely identify and classify materials and prepare them for transport.

(j)(8)(iii)

Staging areas shall be provided with adequate access and egress routes.

(j)(8)(iv)

Bulking of hazardous wastes shall be permitted only after a thorough characterization of the materials has been completed.

(j)(9)

Tank and vault procedures.

(j)(9)(i)

Tanks and vaults containing hazardous substances shall be handled in a manner similar to that for drums and containers, taking into consideration the size of the tank or vault.

(j)(9)(ii)

Appropriate tank or vault entry procedures as described in the employer's safety and health plan shall be followed whenever employees must enter a tank or vault.

(k)

Decontamination -

(k)(1)

General. Procedures for all phases of decontamination shall be developed and implemented in accordance with this paragraph.

..1910.120(k)(2)

(k)(2)

Decontamination procedures.

(k)(2)(i)

A decontamination procedure shall be developed, communicated to employees and implemented before any employees or equipment may enter areas on site where potential for exposure to hazardous substances exists.

(k)(2)(ii)

Standard operating procedures shall be developed to minimize employee contact with hazardous substances or with equipment that has contacted hazardous substances.

(k)(2)(iii)

All employees leaving a contaminated area shall be appropriately decontaminated; all contaminated clothing and equipment leaving a contaminated area shall be appropriately disposed of or decontaminated.

(k)(2)(iv)

Decontamination procedures shall be monitored by the site safety and health supervisor to determine their effectiveness. When such procedures are found to be ineffective, appropriate steps shall be taken to correct any deficiencies.

(k)(3)

Location. Decontamination shall be performed in geographical areas that will minimize the exposure of uncontaminated employees or equipment to contaminated employees or equipment.

(k)(4)

Equipment and solvents. All equipment and solvents used for decontamination shall be decontaminated or disposed of properly.

..1910.120(k)(5)

(k)(5)

Personal protective clothing and equipment.

(k)(5)(i)

Protective clothing and equipment shall be decontaminated, cleaned, laundered, maintained or replaced as needed to maintain their effectiveness.

(k)(5)(ii)

Employees whose non-impermeable clothing becomes wetted with hazardous substances shall immediately remove that clothing and proceed to shower. The clothing shall be disposed of or decontaminated before it is removed from the work zone.

(k)(6)

Unauthorized employees shall not remove protective clothing or equipment from change rooms.

(k)(7)

Commercial laundries or cleaning establishments. Commercial laundries or cleaning establishments that decontaminate protective clothing or equipment shall be informed of the potentially harmful effects of exposures to hazardous substances.

(k)(8)

Showers and change rooms. Where the decontamination procedure indicates a need for regular showers and change rooms outside of a contaminated area, they shall be provided and meet the requirements of 29 CFR 1910.141. If temperature conditions prevent the effective use of water, then other effective means for cleansing shall be provided and used.

..1910.120(l)

(I)

Emergency response by employees at uncontrolled hazardous waste sites -

(I)(1)

Emergency response plan.

(I)(1)(i)

An emergency response plan shall be developed and implemented by all employers within the scope of paragraphs (a)(1)(i) through (ii) of this section. section to handle anticipated emergencies prior to the commencement of hazardous waste operations. The plan shall be in writing and available for inspection and copying by employees, their representatives, OSHA personnel and other governmental agencies with relevant responsibilities.

(I)(1)(ii)

Employers who will evacuate their employees from the danger area when an emergency occurs, and who do not permit any of their employees to assist in handling the emergency, are exempt from the requirements of this paragraph if they provide an emergency action plan complying with section 1910.38(a) of this part.

(I)(2)

Elements of an emergency response plan. The employer shall develop an emergency response plan for emergencies which shall address, as a minimum, the following:

(I)(2)(i)

Pre-emergency planning.

(I)(2)(ii)

Personnel roles, lines of authority, training, and communication.

(I)(2)(iii)

Emergency recognition and prevention.

(I)(2)(iv)

Safe distances and places of refuge.

(1)(2)(v)

Site security and control.

(1)(2)(vi)

Evacuation routes and procedures.

..1910.120(l)(2)(vii)

(1)(2)(vii)

Decontamination procedures which are not covered by the site safety and health plan.

(1)(2)(viii)

Emergency medical treatment and first aid.

(1)(2)(ix)

Emergency alerting and response procedures.

(1)(2)(x)

Critique of response and follow-up.

(1)(2)(xi)

PPE and emergency equipment.

(1)(3)

Procedures for handling emergency incidents.

(1)(3)(i)

In addition to the elements for the emergency response plan required in paragraph (1)(2) of this section, the following elements shall be included for emergency response plans:

(I)(3)(i)(A)

Site topography, layout, and prevailing weather conditions.

(I)(3)(i)(B)

Procedures for reporting incidents to local, state, and federal governmental agencies.

(I)(3)(ii)

The emergency response plan shall be a separate section of the Site Safety and Health Plan.

..1910.120(l)(3)(iii)

(I)(3)(iii)

The emergency response plan shall be compatible and integrated with the disaster, fire and/or emergency response plans of local, state, and federal agencies.

(I)(3)(iv)

The emergency response plan shall be rehearsed regularly as part of the overall training program for site operations.

(I)(3)(v)

The site emergency response plan shall be reviewed periodically and, as necessary, be amended to keep it current with new or changing site conditions or information.

(I)(3)(vi)

An employee alarm system shall be installed in accordance with 29 CFR 1910.165 to notify employees of an emergency situation, to stop work activities if necessary, to lower background noise in order to speed communication, and to begin emergency procedures.

(I)(3)(vii)

Based upon the information available at time of the emergency, the employer shall evaluate the incident and the site response capabilities and proceed with the appropriate steps to implement the site emergency response plan.

(m)

Illumination. Areas accessible to employees shall be lighted to not less than the minimum illumination intensities listed in the following Table H-120.1 while any work is in progress:

TABLE H-120.1. - MINIMUM ILLUMINATION INTENSITIES IN FOOT-CANDLES

Foot-candles	Area or operations
5	General site areas.
3	Excavation and waste areas, accessways, active storage areas, loading platforms, refueling, and field maintenance areas.
5	Indoors: warehouses, corridors, hallways, and exitways.
5	Tunnels, shafts, and general underground work areas; (Exception: minimum of 10 foot-candles is required at tunnel and shaft heading during drilling, mucking, and scaling. Mine Safety and Health Administration approved cap lights shall be acceptable for use in the tunnel heading.
10	General shops (e.g., mechanical and electrical equipment rooms, active storerooms, barracks or living quarters, locker or dressing rooms, dining areas, and indoor toilets and workrooms.
30	First aid stations, infirmaries, and offices.

..1910.120(n)**(n)**

Sanitation at temporary workplaces -

(n)(1)

Potable water.

(n)(1)(i)

An adequate supply of potable water shall be provided on the site.

(n)(1)(ii)

Portable containers used to dispense drinking water shall be capable of being tightly closed, and equipped with a tap. Water shall not be dipped from containers.

(n)(1)(iii)

Any container used to distribute drinking water shall be clearly marked as to the nature of its contents and not used for any other purpose.

(n)(1)(iv)

Where single service cups (to be used but once) are supplied, both a sanitary container for the unused cups and a receptacle for disposing of the used cups shall be provided.

(n)(2)

Nonpotable water.

(n)(2)(i)

Outlets for nonpotable water, such as water for firefighting purposes shall be identified to indicate clearly that the water is unsafe and is not to be used for drinking, washing, or cooking purposes.

(n)(2)(ii)

There shall be no cross-connection, open or potential, between a system furnishing potable water and a system furnishing nonpotable water.

..1910.120(n)(3)

(n)(3)

Toilets facilities.

(n)(3)(i)

Toilets shall be provided for employees according to Table H-120.2.

TABLE H-120.2. - TOILET FACILITIES

Number of employees	Minimum number of facilities
20 or fewer.....	One.
More than 20, fewer than 200.	One toilet seat and 1 urinal per 40 employees.
More than 200.....	One toilet seat and 1 urinal per 50 employees.

(n)(3)(ii)

Under temporary field conditions, provisions shall be made to assure not less than one toilet facility is available.

(n)(3)(iii)

Hazardous waste sites, not provided with a sanitary sewer, shall be provided with the following toilet facilities unless prohibited by local codes:

(n)(3)(iii)(A)

Chemical toilets;

(n)(3)(iii)(B)

Recirculating toilets;

(n)(3)(iii)(C)

Combustion toilets; or

(n)(3)(iii)(D)

Flush toilets.

(n)(3)(iv)

The requirements of this paragraph for sanitation facilities shall not apply to mobile crews having transportation readily available to nearby toilet facilities.

(n)(3)(v)

Doors entering toilet facilities shall be provided with entrance locks controlled from inside the facility.

..1910.120(n)(4)

(n)(4)

Food handling. All food service facilities and operations for employees shall meet the applicable laws, ordinances, and regulations of the jurisdictions in which they are located.

(n)(5)

Temporary sleeping quarters. When temporary sleeping quarters are provided, they shall be heated, ventilated, and lighted.

(n)(6)

Washing facilities. The employer shall provide adequate washing facilities for employees engaged in operations where hazardous substances may be harmful to employees. Such facilities shall be in near proximity to the worksite; in areas where exposures are below permissible exposure limits and which are under the controls of the employer; and shall be so equipped as to enable employees to remove hazardous substances from themselves.

(n)(7)

Showers and change rooms. When hazardous waste clean-up or removal operations commence on a site and the duration of the work will require six months or greater time to complete, the employer shall provide showers and change rooms for all employees exposed to hazardous substances and health hazards involved in hazardous waste clean-up or removal operations.

(n)(7)(i)

Showers shall be provided and shall meet the requirements of 29 CFR 1910.141(d)(3).

..1910.120(n)(7)(ii)

(n)(7)(ii)

Change rooms shall be provided and shall meet the requirements of 29 CFR 1910.141(e). Change rooms shall consist of two separate change areas separated by the shower area required in paragraph (n)(7)(i) of this section. One change area, with an exit leading off the worksite, shall provide employees with an area where they can put on, remove and store work clothing and personal protective equipment.

(n)(7)(iii)

Showers and change rooms shall be located in areas where exposures are below the permissible exposure limits and published exposure levels. If this cannot be accomplished, then a ventilation system shall be provided that will supply air that is below the permissible exposure limits and published exposure levels.

(n)(7)(iv)

Employers shall assure that employees shower at the end of their work shift and when leaving the hazardous waste site.

(o)

New technology programs.

(o)(1)

The employer shall develop and implement procedures for the introduction of effective new technologies and equipment developed for the improved protection of employees working with hazardous waste clean-up operations, and the same shall be implemented as part of the site safety and health program to assure that employee protection is being maintained.

..1910.120(o)(2)

(o)(2)

New technologies, equipment or control measures available to the industry, such as the use of foams, absorbents, absorbents, neutralizers, or other means to suppress the level of air contaminants while excavating the site or for spill control, shall be evaluated by employers or their representatives. Such an evaluation shall be done to determine the effectiveness of the new methods, materials, or equipment before implementing their use on a large scale for enhancing employee protection. Information and data from manufacturers or suppliers may be used as part of the employer's evaluation effort. Such evaluations shall be made available to OSHA upon request.

(p)

Certain Operations Conducted Under the Resource Conservation and Recovery Act of 1976 (RCRA).

Employers conducting operations at treatment, storage and disposal (TSD) facilities specified in paragraph (a)(1)(iv) of this section shall provide and implement the programs specified in this paragraph. See the "Notes and Exceptions" to paragraph (a)(2)(iii) of this section for employers not covered.

(p)(1)

Safety and health program. The employer shall develop and implement a written safety and health program for employees involved in hazardous waste operations that shall be available for inspection by employees, their representatives and OSHA personnel. The program shall be designed to identify, evaluate and control safety and health hazards in their facilities for the purpose of employee protection, to provide for emergency response meeting the requirements of paragraph (p)(8) of this section and to address as appropriate site analysis, engineering controls, maximum exposure limits, hazardous waste handling procedures and uses of new technologies.

(p)(2)

Hazard communication program. The employer shall implement a hazard communication program meeting the requirements of 29 CFR 1910.1200 as part of the employer's safety and program.

NOTE TO 1910.120 - The exemption for hazardous waste provided in 1910.1200 is applicable to this section.

..1910.120(p)(3)

(p)(3)

Medical surveillance program. The employer shall develop and implement a medical surveillance program meeting the requirements of paragraph (f) of this section.

(p)(4)

Decontamination program. The employer shall develop and implement a decontamination procedure meeting the requirements of paragraph (k) of this section.

(p)(5)

New technology program. The employer shall develop and implement procedures meeting the requirements of paragraph (o) of this section for introducing new and innovative equipment into the workplace.

(p)(6)

Material handling program. Where employees will be handling drums or containers, the employer shall develop and implement procedures meeting the requirements of paragraphs (j)(1)(ii) through (viii) and (xi) of this section, as well as (j)(3) and (j)(8) of this section prior to starting such work.

..1910.120(p)(7)

(p)(7)

Training program -

(p)(7)(i)

New employees. The employer shall develop and implement a training program which is part of the employer's safety and health program, for employees exposed to health hazards or hazardous substances at TSD operations to enable the employees to perform their assigned duties and functions in a safe and healthful manner so as not to endanger themselves or other employees. The initial training shall be for 24 hours and refresher training shall be for eight hours annually. Employees who have received the initial training required by this paragraph shall be given a written certificate attesting that they have successfully completed the necessary training.

(p)(7)(ii)

Current employees. Employers who can show by an employee's previous work experience and/or training that the employee has had training equivalent to the initial training required by this paragraph, shall be considered as meeting the initial training requirements of this paragraph as to that employee. Equivalent training includes the training that existing employees might have already received from actual site work experience. Current employees shall receive eight hours of refresher training annually.

(p)(7)(iii)

Trainers. Trainers who teach initial training shall have satisfactorily completed a training course for teaching the subjects they are expected to teach or they shall have the academic credentials and instruction experience necessary to demonstrate a good command of the subject matter of the courses and competent instructional skills.

..1910.120(p)(8)

(p)(8)

Emergency response program -

(p)(8)(i)

Emergency response plan. An emergency response plan shall be developed and implemented by all employers. Such plans need not duplicate any of the subjects fully addressed in the employer's contingency planning required by permits, such as those issued by the U.S. Environmental Protection Agency, provided that the contingency plan is made part of the emergency response plan. The emergency response plan shall be a written portion of the employers safety and health program required in paragraph (p)(1) of this section. Employers who will evacuate their employees from the worksite location when an emergency occurs, and who do not permit any of their employees to assist in handling the emergency, are exempt from the requirements of paragraph (p)(8) if they provide an emergency action plan complying with section 1910.38(a) of this part.

(p)(8)(ii)

Elements of an emergency response plan. The employer shall develop an emergency response plan for emergencies which shall address, as a minimum, the following areas to the extent that they are not addressed in any specific program required in this paragraph:

(p)(8)(ii)(A)

Pre-emergency planning and coordination with outside parties.

(p)(8)(ii)(B)

Personnel roles, lines of authority, training, and communication.

(p)(8)(ii)(C)

Emergency recognition and prevention.

(p)(8)(ii)(D)

Safe distances and places of refuge.

(p)(8)(ii)(E)

Site security and control.

(p)(8)(ii)(F)

Evacuation routes and procedures.

(p)(8)(ii)(G)

Decontamination procedures.

(p)(8)(ii)(H)

Emergency medical treatment and first aid.

(p)(8)(ii)(I)

Emergency alerting and response procedures.

..1910.120(p)(8)(ii)(J)

(p)(8)(ii)(J)

Critique of response and follow-up.

(p)(8)(ii)(K)

PPE and emergency equipment.

(p)(8)(iii)

Training.

(p)(8)(iii)(A)

Training for emergency response employees shall be completed before they are called upon to perform in real emergencies. Such training shall include the elements of the emergency response plan, standard operating procedures the employer has established for the job, the personal protective equipment to be worn and procedures for handling emergency incidents.

Exception #1: an employer need not train all employees to the degree specified if the employer divides the work force in a manner such that a sufficient number of employees who have responsibility to control emergencies have the training specified, and all other employees, who may first respond to an emergency incident, have sufficient awareness training to recognize that an emergency response situation exists and that they are instructed in that case to summon the fully trained employees and not attempt control activities for which they are not trained.

Exception #2: An employer need not train all employees to the degree specified if arrangements have been made in advance for an outside fully-trained emergency response team to respond in a reasonable period and all employees, who may come to the incident first, have sufficient awareness training to

recognize that an emergency response situation exists and they have been instructed to call the designated outside fully-trained emergency response team for assistance.

(p)(8)(iii)(B)

Employee members of TSD facility emergency response organizations shall be trained to a level of competence in the recognition of health and safety hazards to protect themselves and other employees. This would include training in the methods used to minimize the risk from safety and health hazards; in the safe use of control equipment; in the selection and use of appropriate personal protective equipment; in the safe operating procedures to be used at the incident scene; in the techniques of coordination with other employees to minimize risks; in the appropriate response to over exposure from health hazards or injury to themselves and other employees; and in the recognition of subsequent symptoms which may result from over exposures.

..1910.120(p)(8)(iii)(C)

(p)(8)(iii)(C)

The employer shall certify that each covered employee has attended and successfully completed the training required in paragraph (p)(8)(iii) of this section, or shall certify the employee's competency for certification of training shall be recorded and maintained by the employer.

(p)(8)(iv)

Procedures for handling emergency incidents.

(p)(8)(iv)(A)

In addition to the elements for the emergency response plan required in paragraph (p)(8)(ii) of this section, the following elements shall be included for emergency response plans to the extent that they do not repeat any information already contained in the emergency response plan:

(p)(8)(iv)(A)(1)

Site topography, layout, and prevailing weather conditions.

(p)(8)(iv)(A)(2)

Procedures for reporting incidents to local, state, and federal governmental agencies.

(p)(8)(iv)(B)

The emergency response plan shall be compatible and integrated with the disaster, fire and/or emergency response plans of local, state, and federal agencies.

(p)(8)(iv)(C)

The emergency response plan shall be rehearsed regularly as part of the overall training program for site operations.

(p)(8)(iv)(D)

The site emergency response plan shall be reviewed periodically and, as necessary, be amended to keep it current with new or changing site conditions or information.

..1910.120(p)(8)(iv)(E)

(p)(8)(iv)(E)

An employee alarm system shall be installed in accordance with 29 CFR 1910.165 to notify employees of an emergency situation, to stop work activities if necessary, to lower background noise in order to speed communication; and to begin emergency procedures.

(p)(8)(iv)(F)

Based upon the information available at time of the emergency, the employer shall evaluate the incident and the site response capabilities and proceed with the appropriate steps to implement the site emergency response plan.

(q)

Emergency response program to hazardous substance releases. This paragraph covers employers whose employees are engaged in emergency response no matter where it occurs except that it does not cover employees engaged in operations specified in paragraphs (a)(1)(i) through (a)(1)(iv) of this section. Those emergency response organizations who have developed and implemented programs equivalent to this paragraph for handling releases of hazardous substances pursuant to section 303 of the Superfund Amendments and Reauthorization Act of 1986 (Emergency Planning and Community Right-to-Know Act of 1986, 42 U.S.C. 11003) shall be deemed to have met the requirements of this paragraph.

..1910.120(q)(1)

(q)(1)

Emergency response plan. An emergency response plan shall be developed and implemented to handle

anticipated emergencies prior to the commencement of emergency response operations. The plan shall be in writing and available for inspection and copying by employees, their representatives, OSHA personnel. Employers who will evacuate their employees from the danger area when an emergency occurs, and who do not permit any of their employees to assist in handling the emergency, are exempt from the requirements of this paragraph if they provide an emergency action plan complying with section 1910.38(a) of this part.

(q)(2)

Elements of an emergency response plan. The employer shall develop an emergency response plan for emergencies which shall address, as a minimum, the following areas to the extent that they are not addressed in any specific program required in this paragraph:

(q)(2)(i)

Pre-emergency planning and coordination with outside parties..

(q)(2)(ii)

Personnel roles, lines of authority, training, and communication.

(q)(2)(iii)

Emergency recognition and prevention.

(q)(2)(iv)

Safe distances and places of refuge.

(q)(2)(v)

Site security and control.

(q)(2)(vi)

Evacuation routes and procedures.

(q)(2)(vii)

Decontamination.

(q)(2)(viii)

Emergency medical treatment and first aid.

(q)(2)(ix)

Emergency alerting and response procedures.

..1910.120(q)(2)(x)

(q)(2)(x)

Critique of response and follow-up.

(q)(2)(xi)

PPE and emergency equipment.

(q)(2)(xii)

Emergency response organizations may use the local emergency response plan or the state emergency response plan or both, as part of their emergency response plan to avoid duplication. Those items of the emergency response plan that are being properly addressed by the SARA Title III plans may be substituted into their emergency plan or otherwise kept together for the employer and employee's use.

(q)(3)

Procedures for handling emergency response.

(q)(3)(i)

The senior emergency response official responding to an emergency shall become the individual in charge of a site-specific Incident Command System (ICS). All emergency responders and their communications shall be coordinated and controlled through the individual in charge of the ICS assisted by the senior official present for each employer.

NOTE TO (q)(3)(i). - The "senior official" at an emergency response is the most senior official on the site who has the responsibility for controlling the operations at the site. Initially it is the senior officer on the first-due piece of responding emergency apparatus to arrive on the incident scene. As more senior officers arrive (i.e. , battalion chief, fire chief, state law enforcement official, site coordinator, etc.) the position is passed up the line of authority which has been previously established.

(q)(3)(ii)

The individual in charge of the ICS shall identify, to the extent possible, all hazardous substances or conditions present and shall address as appropriate site analysis, use of engineering controls, maximum exposure limits, hazardous substance handling procedures, and use of any new technologies.

..1910.120(q)(3)(iii)

(q)(3)(iii)

Based on the hazardous substances and/or conditions present, the individual in charge of the ICS shall implement appropriate emergency operations, and assure that the personal protective equipment worn is appropriate for the hazards to be encountered. However, personal protective equipment shall meet, at a minimum, the criteria contained in 29 CFR 1910.156(e) when worn while performing fire fighting operations beyond the incipient stage for any incident.

(q)(3)(iv)

Employees engaged in emergency response and exposed to hazardous substances presenting an inhalation hazard or potential inhalation hazard shall wear positive pressure self-contained breathing apparatus while engaged in emergency response, until such time that the individual in charge of the ICS determines through the use of air monitoring that a decreased level of respiratory protection will not result in hazardous exposures to employees.

(q)(3)(v)

The individual in charge of the ICS shall limit the number of emergency response personnel at the emergency site, in those areas of potential or actual exposure to incident or site hazards, to those who are actively performing emergency operations. However, operations in hazardous areas shall be performed using the buddy system in groups of two or more.

(q)(3)(vi)

Back-up personnel shall be standing by with equipment ready to provide assistance or rescue. Qualified basic life support personnel, as a minimum, shall also be standing by with medical equipment and transportation capability.

..1910.120(q)(3)(vii)

(q)(3)(vii)

The individual in charge of the ICS shall designate a safety officer, who is knowledgeable in the

operations being implemented at the emergency response site, with specific responsibility to identify and evaluate hazards and to provide direction with respect to the safety of operations for the emergency at hand.

(q)(3)(viii)

When activities are judged by the safety officer to be an IDLH and/or to involve an imminent danger condition, the safety officer shall have the authority to alter, suspend, or terminate those activities. The safety official shall immediately inform the individual in charge of the ICS of any actions needed to be taken to correct these hazards at the emergency scene.

(q)(3)(ix)

After emergency operations have terminated, the individual in charge of the ICS shall implement appropriate decontamination procedures.

(q)(3)(x)

When deemed necessary for meeting the tasks at hand, approved self-contained compressed air breathing apparatus may be used with approved cylinders from other approved self-contained compressed air breathing apparatus provided that such cylinders are of the same capacity and pressure rating. All compressed air cylinders used with self-contained breathing apparatus shall meet U.S. Department of Transportation and National Institute for Occupational Safety and Health criteria.

..1910.120(q)(4)

(q)(4)

Skilled support personnel. Personnel, not necessarily an employer's own employees, who are skilled in the operation of certain equipment, such as mechanized earth moving or digging equipment or crane and hoisting equipment, and who are needed temporarily to perform immediate emergency support work that cannot reasonably be performed in a timely fashion by an employer's own employees, and who will be or may be exposed to the hazards at an emergency response scene, are not required to meet the training required in this paragraph for the employer's regular employees. However, these personnel shall be given an initial briefing at the site prior to their participation in any emergency response. The initial briefing shall include instruction in the wearing of appropriate personal protective equipment, what chemical hazards are involved, and what duties are to be performed. All other appropriate safety and health precautions provided to the employer's own employees shall be used to assure the safety and health of these personnel.

(q)(5)

Specialist employees. Employees who, in the course of their regular job duties, work with and are trained in the hazards of specific hazardous substances, and who will be called upon to provide technical advice or assistance at a hazardous substance release incident to the individual in charge, shall receive training or demonstrate competency in the area of their specialization annually.

(q)(6)

Training. Training shall be based on the duties and function to be performed by each responder of an emergency response organization. The skill and knowledge levels required for all new responders, those hired after the effective date of this standard, shall be conveyed to them through training before they are permitted to take part in actual emergency operations on an incident. Employees who participate, or are expected to participate, in emergency response, shall be given training in accordance with the following paragraphs:

(q)(6)(i)

First responder awareness level. First responders at the awareness level are individuals who are likely to witness or discover a hazardous substance release and who have been trained to initiate an emergency response sequence by notifying the proper authorities of the release. They would take no further action beyond notifying the authorities of the release. First responders at the awareness level shall have sufficient training or have had sufficient experience to objectively demonstrate competency in the following areas:

..1910.120(q)(6)(i)(A)

(q)(6)(i)(A)

An understanding of what hazardous substances are, and the risks associated with them in an incident.

(q)(6)(i)(B)

An understanding of the potential outcomes associated with an emergency created when hazardous substances are present.

(q)(6)(i)(C)

The ability to recognize the presence of hazardous substances in an emergency.

(q)(6)(i)(D)

The ability to identify the hazardous substances, if possible.

(q)(6)(i)(E)

An understanding of the role of the first responder awareness individual in the employer's emergency response plan including site security and control and the U.S. Department of Transportation's Emergency Response Guidebook.

(q)(6)(i)(F)

The ability to realize the need for additional resources, and to make appropriate notifications to the communication center.

..1910.120(q)(6)(ii)

(q)(6)(ii)

First responder operations level. First responders at the operations level are individuals who respond to releases or potential releases of hazardous substances as part of the initial response to the site for the purpose of protecting nearby persons, property, or the environment from the effects of the release. They are trained to respond in a defensive fashion without actually trying to stop the release. Their function is to contain the release from a safe distance, keep it from spreading, and prevent exposures. First responders at the operational level shall have received at least eight hours of training or have had sufficient experience to objectively demonstrate competency in the following areas in addition to those listed for the awareness level and the employer shall so certify:

(q)(6)(ii)(A)

Knowledge of the basic hazard and risk assessment techniques.

(q)(6)(ii)(B)

Know how to select and use proper personal protective equipment provided to the first responder operational level.

(q)(6)(ii)(C)

An understanding of basic hazardous materials terms.

(q)(6)(ii)(D)

Know how to perform basic control, containment and/or confinement operations within the capabilities of the resources and personal protective equipment available with their unit.

(q)(6)(ii)(E)

Know how to implement basic decontamination procedures.

(q)(6)(ii)(F)

An understanding of the relevant standard operating procedures and termination procedures.

..1910.120(q)(6)(iii)

(q)(6)(iii)

Hazardous materials technician. Hazardous materials technicians are individuals who respond to releases or potential releases for the purpose of stopping the release. They assume a more aggressive role than a first responder at the operations level in that they will approach the point of release in order to plug, patch or otherwise stop the release of a hazardous substance. Hazardous materials technicians shall have received at least 24 hours of training equal to the first responder operations level and in addition have competency in the following areas and the employer shall so certify:

(q)(6)(iii)(A)

Know how to implement the employer's emergency response plan.

(q)(6)(iii)(B)

Know the classification, identification and verification of known and unknown materials by using field survey instruments and equipment.

(q)(6)(iii)(C)

Be able to function within an assigned role in the Incident Command System.

(q)(6)(iii)(D)

Know how to select and use proper specialized chemical personal protective equipment provided to the hazardous materials technician.

(q)(6)(iii)(E)

Understand hazard and risk assessment techniques.

(q)(6)(iii)(F)

Be able to perform advance control, containment, and/or confinement operations within the capabilities of the resources and personal protective equipment available with the unit.

(q)(6)(iii)(G)

Understand and implement decontamination procedures.

(q)(6)(iii)(H)

Understand termination procedures.

..1910.120(q)(6)(iii)(I)

(q)(6)(iii)(I)

Understand basic chemical and toxicological terminology and behavior.

(q)(6)(iv)

Hazardous materials specialist. Hazardous materials specialists are individuals who respond with and provide support to hazardous materials technicians. Their duties parallel those of the hazardous materials technician, however, those duties require a more directed or specific knowledge of the various substances they may be called upon to contain. The hazardous materials specialist would also act as the site liaison with Federal, state, local and other government authorities in regards to site activities. Hazardous materials specialists shall have received at least 24 hours of training equal to the technician level and in addition have competency in the following areas and the employer shall so certify:

(q)(6)(iv)(A)

Know how to implement the local emergency response plan.

(q)(6)(iv)(B)

Understand classification, identification and verification of known and unknown materials by using advanced survey instruments and equipment.

(q)(6)(iv)(C)

Know the state emergency response plan.

(q)(6)(iv)(D)

Be able to select and use proper specialized chemical personal protective equipment provided to the hazardous materials specialist.

(q)(6)(iv)(E)

Understand in-depth hazard and risk techniques.

..1910.120(q)(6)(iv)(F)

(q)(6)(iv)(F)

Be able to perform specialized control, containment, and/or confinement operations within the capabilities of the resources and personal protective equipment available.

(q)(6)(iv)(G)

Be able to determine and implement decontamination procedures.

(q)(6)(iv)(H)

Have the ability to develop a site safety and control plan.

(q)(6)(iv)(I)

Understand chemical, radiological and toxicological terminology and behavior.

(q)(6)(v)

On scene incident commander. Incident commanders, who will assume control of the incident scene beyond the first responder awareness level, shall receive at least 24 hours of training equal to the first responder operations level and in addition have competency in the following areas and the employer shall so certify:

(q)(6)(v)(A)

Know and be able to implement the employer's incident command system.

(q)(6)(v)(B)

Know how to implement the employer's emergency response plan.

(q)(6)(v)(C)

Know and understand the hazards and risks associated with employees working in chemical protective clothing.

(q)(6)(v)(D)

Know how to implement the local emergency response plan.

..1910.120(q)(6)(v)(E)

(q)(6)(v)(E)

Know of the state emergency response plan and of the Federal Regional Response Team.

(q)(6)(v)(F)

Know and understand the importance of decontamination procedures.

(q)(7)

Trainers. Trainers who teach any of the above training subjects shall have satisfactorily completed a training course for teaching the subjects they are expected to teach, such as the courses offered by the U.S. National Fire Academy, or they shall have the training and/or academic credentials and instructional experience necessary to demonstrate competent instructional skills and a good command of the subject matter of the courses they are to teach.

(q)(8)

Refresher training.

(q)(8)(i)

Those employees who are trained in accordance with paragraph (q)(6) of this section shall receive annual refresher training of sufficient content and duration to maintain their competencies, or shall demonstrate competency in those areas at least yearly.

(q)(8)(ii)

A statement shall be made of the training or competency, and if a statement of competency is made, the employer shall keep a record of the methodology used to demonstrate competency.

..1910.120(q)(9)

(q)(9)

Medical surveillance and consultation.

(q)(9)(i)

Members of an organized and designated HAZMAT team and hazardous materials specialist shall receive a baseline physical examination and be provided with medical surveillance as required in paragraph (f) of this section.

(q)(9)(ii)

Any emergency response employees who exhibit signs or symptoms which may have resulted from exposure to hazardous substances during the course of an emergency incident either immediately or subsequently, shall be provided with medical consultation as required in paragraph (f)(3)(ii) of this section.

(q)(10)

Chemical protective clothing. Chemical protective clothing and equipment to be used by organized and designated HAZMAT team members, or to be used by hazardous materials specialists, shall meet the requirements of paragraphs (g)(3) through (5) of this section.

(q)(11)

Post-emergency response operations. Upon completion of the emergency response, if it is determined that it is necessary to remove hazardous substances, health hazards and materials contaminated with them (such as contaminated soil or other elements of the natural environment) from the site of the incident, the employer conducting the clean-up shall comply with one of the following:

(q)(11)(i)

Meet all the requirements of paragraphs (b) through (o) of this section; or

..1910.120(q)(11)(ii)

(q)(11)(ii)

Where the clean-up is done on plant property using plant or workplace employees, such employees shall have completed the training requirements of the following: 29 CFR 1910.38(a); 1910.134; 1910.1200, and other appropriate safety and health training made necessary by the tasks that they are expected to be performed such as personal protective equipment and decontamination procedures. All equipment to be used in the performance of the clean-up work shall be in serviceable condition and shall have been inspected prior to use.

APPENDICES TO 1910.120 - HAZARDOUS WASTE OPERATIONS AND EMERGENCY RESPONSE

NOTE: The following appendices serve as non-mandatory guidelines to assist employees and employers in complying with the appropriate requirements of this section. However paragraph 1910.120(g) makes mandatory in certain circumstances the use of Level A and Level B PPE protection.

[61 FR 9227, March 7, 1996]

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OSHA Regulations (Standards - 29 CFR)

Employee emergency plans and fire prevention plans. - 1910.38

 [OSHA Regulations \(Standards - 29 CFR\) - Table of Contents](#)

- **Standard Number:** 1910.38
- **Standard Title:** Employee emergency plans and fire prevention plans.
- **SubPart Number:** E
- **SubPart Title:** Means of Egress



(a)

"Emergency action plan" -

(a)(1)

"Scope and application." This paragraph (a) applies to all emergency action plans required by a particular OSHA standard. The emergency action plan shall be in writing (except as provided in the last sentence of paragraph (a)(5)(iii) of this section) and shall cover those designated actions employers and employees must take to ensure employee safety from fire and other emergencies.

(a)(2)

"Elements." The following elements, at a minimum, shall be included in the plan:

(a)(2)(i)

Emergency escape procedures and emergency escape route assignments;

(a)(2)(ii)

Procedures to be followed by employees who remain to operate critical plant operations before they evacuate;

(a)(2)(iii)

Procedures to account for all employees after emergency evacuation has been completed;

..1910.38(a)(2)(iv)

(a)(2)(iv)

Rescue and medical duties for those employees who are to perform them;

(a)(2)(v)

The preferred means of reporting fires and other emergencies; and

(a)(2)(vi)

Names or regular job titles of persons or departments who can be contacted for further information or explanation of duties under the plan.

(a)(3)

"Alarm system."

(a)(3)(i)

The employer shall establish an employee alarm system which complies with 1910.165.

(a)(3)(ii)

If the employee alarm system is used for alerting fire brigade members, or for other purposes, a distinctive signal for each purpose shall be used.

(a)(4)

"Evacuation." The employer shall establish in the emergency action plan the types of evacuation to be used in emergency circumstances.

(a)(5)

"Training."

(a)(5)(i)

Before implementing the emergency action plan, the employer shall designate and train a sufficient number of persons to assist in the safe and orderly emergency evacuation of employees.

..1910.38(a)(5)(ii)

(a)(5)(ii)

The employer shall review the plan with each employee covered by the plan at the following times:

(a)(5)(ii)(A)

Initially when the plan is developed,

(a)(5)(ii)(B)

Whenever the employee's responsibilities or designated actions under the plan change, and

(a)(5)(ii)(C)

Whenever the plan is changed.

(a)(5)(iii)

The employer shall review with each employee upon initial assignment those parts of the plan which the employee must know to protect the employee in the event of an emergency. The written plan shall be kept at the workplace and made available for employee review. For those employers with 10 or fewer employees the plan may be communicated orally to employees and the employer need not maintain a written plan.

(b)

"Fire prevention plan" -

(b)(1)

"Scope and application." This paragraph (b) applies to all fire prevention plans required by a particular OSHA standard. The fire prevention plan shall be in writing, except as provided in the last sentence of paragraph (b)(4)(ii) of this section.

..1910.38(b)(2)

(b)(2)

"Elements." The following elements, at a minimum, shall be included in the fire prevention plan:

(b)(2)(i)

A list of the major workplace fire hazards and their proper handling and storage procedures, potential ignition sources (such as welding, smoking and others) and their control procedures, and the type of fire protection equipment or systems which can control a fire involving them;

(b)(2)(ii)

Names or regular job titles of those personnel responsible for maintenance of equipment and systems installed to prevent or control ignitions or fires; and

(b)(2)(iii)

Names or regular job titles of those personnel responsible for control of fuel source hazards.

(b)(3)

"Housekeeping." The employer shall control accumulations of flammable and combustible waste materials and residues so that they do not contribute to a fire emergency. The housekeeping procedures shall be included in the written fire prevention plan.

(b)(4)

"Training."

(b)(4)(i)

The employer shall apprise employees of the fire hazards of the materials and processes to which they are exposed.

..1910.38(b)(4)(ii)

(b)(4)(ii)

The employer shall review with each employee upon initial assignment those parts of the fire prevention

plan which the employee must know to protect the employee in the event of an emergency. The written plan shall be kept in the workplace and made available for employee review. For those employers with 10 or fewer employees, the plan may be communicated orally to employees and the employer need not maintain a written plan.

(b)(5)

"Maintenance." The employer shall regularly and properly maintain, according to established procedures, equipment and systems installed on heat producing equipment to prevent accidental ignition of combustible materials. The maintenance procedures shall be included in the written fire prevention plan.

[45 FR 60703, Sept. 12, 1980]

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Occupational Safety & Health Administration
 200 Constitution Avenue, NW
 Washington, DC 20210

OSHA Regulations (Standards - 29 CFR)

Guidelines for Employer Compliance (Advisory) - 1910.1200 App E

[☐ OSHA Regulations \(Standards - 29 CFR\) - Table of Contents](#)

- **Standard Number:** 1910.1200 App E
 - **Standard Title:** Guidelines for Employer Compliance (Advisory)
 - **SubPart Number:** Z
 - **SubPart Title:** Toxic and Hazardous Substances
-
-

The Hazard Communication Standard (HCS) is based on a simple concept - that employees have both a need and a right to know the hazards and identities of the chemicals they are exposed to when working. They also need to know what protective measures are available to prevent adverse effects from occurring. The HCS is designed to provide employees with the information they need.

Knowledge acquired under the HCS will help employers provide safer workplaces for their employees. When employers have information about the chemicals being used, they can take steps to reduce exposures, substitute less hazardous materials, and establish proper work practices. These efforts will help prevent the occurrence of work-related illnesses and injuries caused by chemicals.

The HCS addresses the issues of evaluating and communicating hazards to workers. Evaluation of chemical hazards involves a number of technical concepts, and is a process that requires the professional judgment of experienced experts. That's why the HCS is designed so that employers who simply use chemicals, rather than produce or import them, are not required to evaluate the hazards of those chemicals. Hazard determination is the responsibility of the producers and importers of the materials. Producers and importers of chemicals are then required to provide the hazard information to employers that purchase their products.

Employers that don't produce or import chemicals need only focus on those parts of the rule that deal with establishing a workplace program and communicating information to their workers. This appendix is a general guide for such employers to help them determine what's required under the rule. It does not supplant or substitute for the regulatory provisions, but rather provides a simplified outline of the steps an average employer would follow to meet those requirements.

1. "Becoming Familiar With The Rule."

OSHA has provided a simple summary of the HCS in a pamphlet entitled "Chemical Hazard Communication," OSHA Publication Number 3084. Some employers prefer to begin to become familiar with the rule's requirements by reading this pamphlet. A copy may be obtained from your local OSHA Area Office, or by contacting the OSHA Publications Office at (202) 523-9667.

The standard is long, and some parts of it are technical, but the basic concepts are simple. In fact, the requirements reflect what many employers have been doing for years. You may find that you are already largely in compliance with many of the provisions, and will simply have to modify your existing programs somewhat. If you are operating in an OSHA-approved State Plan State, you must comply with the State's requirements, which may be different than those of the Federal rule. Many of the State Plan States had hazard communication or "right-to-know" laws prior to promulgation of the Federal rule. Employers in State Plan States should contact their State OSHA offices for more information regarding applicable requirements.

The HCS requires information to be prepared and transmitted regarding all hazardous chemicals. The HCS covers both physical hazards (such as flammability), and health hazards (such as irritation, lung damage, and cancer). Most chemicals used in the workplace have some hazard potential, and thus will be covered by the rule.

One difference between this rule and many others adopted by OSHA is that this one is performance-oriented. That means that you have the flexibility to adapt the rule to the needs of your workplace, rather than having to follow specific, rigid requirements. It also means that you have to exercise more judgment to implement an appropriate and effective program.

The standard's design is simple. Chemical manufacturers and importers must evaluate the hazards of the chemicals they produce or import. Using that information, they must then prepare labels for containers, and more detailed technical bulletins called material safety data sheets (MSDS).

Chemical manufacturers, importers, and distributors of hazardous chemicals are all required to provide the appropriate labels and material safety data sheets to the employers to which they ship the chemicals. The information is to be provided automatically. Every container of hazardous chemicals you receive must be labeled, tagged, or marked with the required information. Your suppliers must also send you a properly completed material safety data sheet (MSDS) at the time of the first shipment of the chemical, and with the next shipment after the MSDS is updated with new and significant information about the hazards.

You can rely on the information received from your suppliers. You have no independent duty to analyze the chemical or evaluate the hazards of it.

Employers that "use" hazardous chemicals must have a program to ensure the information is provided to exposed employees. "Use" means to package, handle, react, or transfer. This is an intentionally broad scope, and includes any situation where a chemical is present in such a way that employees may be exposed under normal conditions of use or in a foreseeable emergency.

The requirements of the rule that deal specifically with the hazard communication program are found in this section in paragraphs (e), written hazard communication program; (f), labels and other forms of warning; (g), material safety data sheets; and (h), employee information and training. The requirements of these paragraphs should be the focus of your attention. Concentrate on becoming familiar with them, using paragraphs (b), scope and application, and (c), definitions, as references when needed to help explain the provisions.

There are two types of work operations where the coverage of the rule is limited. These are laboratories and operations where chemicals are only handled in sealed containers (e.g., a warehouse). The limited provisions for these workplaces can be found in paragraph (b) of this section, scope and application. Basically, employers having these types of work operations need only keep labels on containers as they are received; maintain material safety data sheets that are received, and give employees access to them; and provide information and training for employees. Employers do not have to have written hazard communication programs and lists of chemicals for these types of operations.

The limited coverage of laboratories and sealed container operations addresses the obligation of an employer to the workers in the operations involved, and does not affect the employer's duties as a distributor of chemicals. For example, a distributor may have warehouse operations where employees would be protected under the limited sealed container provisions. In this situation, requirements for obtaining and maintaining MSDSs are limited to providing access to those received with containers while the substance is in the workplace, and requesting MSDSs when employees request access for those not received with the containers. However, as a distributor of hazardous chemicals, that employer will still have responsibilities for providing MSDSs to downstream customers at the time of the first shipment and when the MSDS is updated. Therefore, although they may not be required for the employees in the work operation, the distributor may, nevertheless, have to have MSDSs to satisfy other requirements of the rule.

2. "Identify Responsible Staff"

Hazard communication is going to be a continuing program in your facility. Compliance with the HCS is not a "one shot deal." In order to have a successful program, it will be necessary to assign responsibility for both the initial and ongoing activities that have to be undertaken to comply with the rule. In some cases, these activities may already be part of current job assignments. For example, site supervisors are frequently responsible for on-the-job training sessions. Early identification of the responsible employees, and involvement of them in the development of your plan of action, will result in a more effective program design. Evaluation of the effectiveness of your program will also be enhanced by involvement of affected employees.

For any safety and health program, success depends on commitment at every level of the organization. This is particularly true for hazard communication, where success requires a change in behavior. This will only occur if employers understand the program, and are committed to its success, and if employees are motivated by the people presenting the information to them.

3. "Identify Hazardous Chemicals in the Workplace."

The standard requires a list of hazardous chemicals in the workplace as part of the written hazard communication program. The list will eventually serve as an inventory of everything for which an MSDS must be maintained. At this point, however, preparing the list will help you complete the rest of the program since it will give you some idea of the scope of the program required for compliance in your facility.

The best way to prepare a comprehensive list is to survey the workplace. Purchasing records may also help, and certainly employers should establish procedures to ensure that in the future purchasing procedures result in MSDSs being received before a material is used in the workplace.

The broadest possible perspective should be taken when doing the survey. Sometimes people think of "chemicals" as being only liquids in containers. The HCS covers chemicals in all physical forms - liquids, solids, gases, vapors, fumes, and mists - whether they are "contained" or not. The hazardous nature of the chemical and the potential for exposure are the factors which determine whether a chemical is covered. If it's not hazardous, it's not covered. If there is no potential for exposure (e.g., the chemical is inextricably bound and cannot be released), the rule does not cover the chemical.

Look around. Identify chemicals in containers, including pipes, but also think about chemicals generated in the work operations. For example, welding fumes, dusts, and exhaust fumes are all sources of chemical exposures. Read labels provided by suppliers for hazard information. Make a list of all chemicals in the workplace that are potentially hazardous. For your own information and planning, you may also want to note on the list the location(s) of the products within the workplace, and an indication of the hazards as found on the label. This will help you as you prepare the rest of your program.

Paragraph (b) of this section, scope and application, includes exemptions for various chemicals or workplace situations. After compiling the complete list of chemicals, you should review paragraph (b) of this section to determine if any of the items can be eliminated from the list because they are exempted materials. For example, food, drugs, and cosmetics brought into the workplace for employee consumption are exempt. So rubbing alcohol in the first aid kit would not be covered.

Once you have compiled as complete a list as possible of the potentially hazardous chemicals in the workplace, the next step is to determine if you have received material safety data sheets for all of them. Check your files against the inventory you have just compiled. If any are missing, contact your supplier and request one. It is a good idea to document these requests, either by copy of a letter or a note regarding telephone conversations. If you have MSDSs for chemicals that are not on your list, figure out why. Maybe you don't use the chemical anymore. Or maybe you missed it in your survey. Some suppliers do provide MSDSs for products that are not hazardous. These do not have to be maintained by you.

You should not allow employees to use any chemicals for which you have not received an MSDS. The MSDS provides information you need to ensure proper protective measures are implemented prior to

exposure.

4. "Preparing and Implementing a Hazard Communication Program"

All workplaces where employees are exposed to hazardous chemicals must have a written plan which describes how the standard will be implemented in that facility. Preparation of a plan is not just a paper exercise - all of the elements must be implemented in the workplace in order to be in compliance with the rule. See paragraph (e) of this section for the specific requirements regarding written hazard communication programs. The only work operations which do not have to comply with the written plan requirements are laboratories and work operations where employees only handle chemicals in sealed containers. See paragraph (b) of this section, scope and application, for the specific requirements for these two types of workplaces.

The plan does not have to be lengthy or complicated. It is intended to be a blueprint for implementation of your program - an assurance that all aspects of the requirements have been addressed.

Many trade associations and other professional groups have provided sample programs and other assistance materials to affected employers. These have been very helpful to many employers since they tend to be tailored to the particular industry involved. You may wish to investigate whether your industry trade groups have developed such materials.

Although such general guidance may be helpful, you must remember that the written program has to reflect what you are doing in your workplace. Therefore, if you use a generic program it must be adapted to address the facility it covers. For example, the written plan must list the chemicals present at the site, indicate who is to be responsible for the various aspects of the program in your facility, and indicate where written materials will be made available to employees.

If OSHA inspects your workplace for compliance with the HCS, the OSHA compliance officer will ask to see your written plan at the outset of the inspection. In general, the following items will be considered in evaluating your program.

The written program must describe how the requirements for labels and other forms of warning, material safety data sheets, and employee information and training, are going to be met in your facility. The following discussion provides the type of information compliance officers will be looking for to decide whether these elements of the hazard communication program have been properly addressed:

A. "Labels and Other Forms of Warning"

In-plant containers of hazardous chemicals must be labeled, tagged, or marked with the identity of the material and appropriate hazard warnings. Chemical manufacturers, importers, and distributors are required to ensure that every container of hazardous chemicals they ship is appropriately labeled with such information and with the name and address of the producer or other responsible party. Employers purchasing chemicals can rely on the labels provided by their suppliers. If the material is subsequently

transferred by the employer from a labeled container to another container, the employer will have to label that container unless it is subject to the portable container exemption. See paragraph (f) of this section for specific labeling requirements.

The primary information to be obtained from an OSHA-required label is an identity for the material, and appropriate hazard warnings. The identity is any term which appears on the label, the MSDS, and the list of chemicals, and thus links these three sources of information. The identity used by the supplier may be a common or trade name ("Black Magic Formula"), or a chemical name (1,1,1,-trichloroethane). The hazard warning is a brief statement of the hazardous effects of the chemical ("flammable," "causes lung damage"). Labels frequently contain other information, such as precautionary measures ("do not use near open flame"), but this information is provided voluntarily and is not required by the rule. Labels must be legible, and prominently displayed. There are no specific requirements for size or color, or any specified text.

With these requirements in mind, the compliance officer will be looking for the following types of information to ensure that labeling will be properly implemented in your facility:

1. Designation of person(s) responsible for ensuring labeling of in-plant containers;
2. Designation of person(s) responsible for ensuring labeling of any shipped containers;
3. Description of labeling system(s) used;
4. Description of written alternatives to labeling of in-plant containers (if used); and,
5. Procedures to review and update label information when necessary.

Employers that are purchasing and using hazardous chemicals - rather than producing or distributing them - will primarily be concerned with ensuring that every purchased container is labeled. If materials are transferred into other containers, the employer must ensure that these are labeled as well, unless they fall under the portable container exemption (paragraph (f)(7) of this section). In terms of labeling systems, you can simply choose to use the labels provided by your suppliers on the containers. These will generally be verbal text labels, and do not usually include numerical rating systems or symbols that require special training. The most important thing to remember is that this is a continuing duty - all in-plant containers of hazardous chemicals must always be labeled. Therefore, it is important to designate someone to be responsible for ensuring that the labels are maintained as required on the containers in your facility, and that newly purchased materials are checked for labels prior to use.

B. "Material Safety Data Sheets"

Chemical manufacturers and importers are required to obtain or develop a material safety data sheet for each hazardous chemical they produce or import. Distributors are responsible for ensuring that their

customers are provided a copy of these MSDSs. Employers must have an MSDS for each hazardous chemical which they use. Employers may rely on the information received from their suppliers. The specific requirements for material safety data sheets are in paragraph (g) of this section. There is no specified format for the MSDS under the rule, although there are specific information requirements. OSHA has developed a non-mandatory format, OSHA Form 174, which may be used by chemical manufacturers and importers to comply with the rule. The MSDS must be in English. You are entitled to receive from your supplier a data sheet which includes all of the information required under the rule. If you do not receive one automatically, you should request one. If you receive one that is obviously inadequate, with, for example, blank spaces that are not completed, you should request an appropriately completed one. If your request for a data sheet or for a corrected data sheet does not produce the information needed, you should contact your local OSHA Area Office for assistance in obtaining the MSDS.

The role of MSDSs under the rule is to provide detailed information on each hazardous chemical, including its potential hazardous effects, its physical and chemical characteristics, and recommendations for appropriate protective measures. This information should be useful to you as the employer responsible for designing protective programs, as well as to the workers. If you are not familiar with material safety data sheets and with chemical terminology, you may need to learn to use them yourself. A glossary of MSDS terms may be helpful in this regard. Generally speaking, most employers using hazardous chemicals will primarily be concerned with MSDS information regarding hazardous effects and recommended protective measures. Focus on the sections of the MSDS that are applicable to your situation.

MSDSs must be readily accessible to employees when they are in their work areas during their workshifts. This may be accomplished in many different ways. You must decide what is appropriate for your particular workplace. Some employers keep the MSDSs in a binder in a central location (e.g., in the pick-up truck on a construction site). Others, particularly in workplaces with large numbers of chemicals, computerize the information and provide access through terminals. As long as employees can get the information when they need it, any approach may be used. The employees must have access to the MSDSs themselves - simply having a system where the information can be read to them over the phone is only permitted under the mobile worksite provision, paragraph (g)(9) of this section, when employees must travel between workplaces during the shift. In this situation, they have access to the MSDSs prior to leaving the primary worksite, and when they return, so the telephone system is simply an emergency arrangement.

In order to ensure that you have a current MSDS for each chemical in the plant as required, and that employee access is provided, the compliance officers will be looking for the following types of information in your written program:

1. Designation of person(s) responsible for obtaining and maintaining the MSDSs;
2. How such sheets are to be maintained in the workplace (e.g., in notebooks in the work area(s) or in a computer with terminal access), and how employees can obtain access to them when they are in their

work area during the work shift;

3. Procedures to follow when the MSDS is not received at the time of the first shipment;
4. For producers, procedures to update the MSDS when new and significant health information is found; and,
5. Description of alternatives to actual data sheets in the workplace, if used.

For employers using hazardous chemicals, the most important aspect of the written program in terms of MSDSs is to ensure that someone is responsible for obtaining and maintaining the MSDSs for every hazardous chemical in the workplace. The list of hazardous chemicals required to be maintained as part of the written program will serve as an inventory. As new chemicals are purchased, the list should be updated. Many companies have found it convenient to include on their purchase orders the name and address of the person designated in their company to receive MSDSs.

C. "Employee Information and Training"

Each employee who may be "exposed" to hazardous chemicals when working must be provided information and trained prior to initial assignment to work with a hazardous chemical, and whenever the hazard changes. "Exposure" or "exposed" under the rule means that "an employee is subjected to a hazardous chemical in the course of employment through any route of entry (inhalation, ingestion, skin contact or absorption, etc.) and includes potential (e.g., accidental or possible) exposure." See paragraph (h) of this section for specific requirements. Information and training may be done either by individual chemical, or by categories of hazards (such as flammability or carcinogenicity). If there are only a few chemicals in the workplace, then you may want to discuss each one individually. Where there are large numbers of chemicals, or the chemicals change frequently, you will probably want to train generally based on the hazard categories (e.g., flammable liquids, corrosive materials, carcinogens). Employees will have access to the substance-specific information on the labels and MSDSs.

Information and training is a critical part of the hazard communication program. Information regarding hazards and protective measures are provided to workers through written labels and material safety data sheets. However, through effective information and training, workers will learn to read and understand such information, determine how it can be obtained and used in their own workplaces, and understand the risks of exposure to the chemicals in their workplaces as well as the ways to protect themselves. A properly conducted training program will ensure comprehension and understanding. It is not sufficient to either just read material to the workers, or simply hand them material to read. You want to create a climate where workers feel free to ask questions. This will help you to ensure that the information is understood. You must always remember that the underlying purpose of the HCS is to reduce the incidence of chemical source illnesses and injuries. This will be accomplished by modifying behavior through the provision of hazard information and information about protective measures. If your program works, you and your workers will better understand the chemical hazards within the workplace. The procedures you establish regarding, for example, purchasing, storage, and handling of these chemicals

will improve, and thereby reduce the risks posed to employees exposed to the chemical hazards involved. Furthermore, your workers' comprehension will also be increased, and proper work practices will be followed in your workplace.

If you are going to do the training yourself, you will have to understand the material and be prepared to motivate the workers to learn. This is not always an easy task, but the benefits are worth the effort. More information regarding appropriate training can be found in OSHA Publication No. 2254 which contains voluntary training guidelines prepared by OSHA's Training Institute. A copy of this document is available from OSHA's Publications Office at (202) 219-4667. In reviewing your written program with regard to information and training, the following items need to be considered:

1. Designation of person(s) responsible for conducting training;
2. Format of the program to be used (audiovisuals, classroom instruction, etc.);
3. Elements of the training program (should be consistent with the elements in paragraph (h) of this section); and,
4. Procedure to train new employees at the time of their initial assignment to work with a hazardous chemical, and to train employees when a new hazard is introduced into the workplace.

The written program should provide enough details about the employer's plans in this area to assess whether or not a good faith effort is being made to train employees. OSHA does not expect that every worker will be able to recite all of the information about each chemical in the workplace. In general, the most important aspects of training under the HCS are to ensure that employees are aware that they are exposed to hazardous chemicals, that they know how to read and use labels and material safety data sheets, and that, as a consequence of learning this information, they are following the appropriate protective measures established by the employer. OSHA compliance officers will be talking to employees to determine if they have received training, if they know they are exposed to hazardous chemicals, and if they know where to obtain substance-specific information on labels and MSDSs.

The rule does not require employers to maintain records of employee training, but many employers choose to do so. This may help you monitor your own program to ensure that all employees are appropriately trained. If you already have a training program, you may simply have to supplement it with whatever additional information is required under the HCS. For example, construction employers that are already in compliance with the construction training standard (29 CFR 1926.21) will have little extra training to do.

An employer can provide employees information and training through whatever means are found appropriate and protective. Although there would always have to be some training on-site (such as informing employees of the location and availability of the written program and MSDSs), employee training may be satisfied in part by general training about the requirements of the HCS and about chemical hazards on the job which is provided by, for example, trade associations, unions, colleges, and

professional schools. In addition, previous training, education and experience of a worker may relieve the employer of some of the burdens of informing and training that worker. Regardless of the method relied upon, however, the employer is always ultimately responsible for ensuring that employees are adequately trained. If the compliance officer finds that the training is deficient, the employer will be cited for the deficiency regardless of who actually provided the training on behalf of the employer.

D. "Other Requirements"

In addition to these specific items, compliance officers will also be asking the following questions in assessing the adequacy of the program:

Does a list of the hazardous chemicals exist in each work area or at a central location?

Are methods the employer will use to inform employees of the hazards of non-routine tasks outlined?

Are employees informed of the hazards associated with chemicals contained in unlabeled pipes in their work areas?

On multi-employer worksites, has the employer provided other employers with information about labeling systems and precautionary measures where the other employers have employees exposed to the initial employer's chemicals?

Is the written program made available to employees and their designated representatives?

If your program adequately addresses the means of communicating information to employees in your workplace, and provides answers to the basic questions outlined above, it will be found to be in compliance with the rule.

5. "Checklist for Compliance"

The following checklist will help to ensure you are in compliance with the rule:

Obtained a copy of the rule.	_____
Read and understood the requirements.	_____
Assigned responsibility for tasks.	_____
Prepared an inventory of chemicals.	_____
Ensured containers are labeled.	_____
Obtained MSDS for each chemical.	_____
Prepared written program.	_____
Made MSDSs available to workers.	_____
Conducted training of workers.	_____
Established procedures to maintain current program.	_____

Established procedures to evaluate effectiveness. _____

6. "Further Assistance"

If you have a question regarding compliance with the HCS, you should contact your local OSHA Area Office for assistance. In addition, each OSHA Regional Office has a Hazard Communication Coordinator who can answer your questions. Free consultation services are also available to assist employers, and information regarding these services can be obtained through the Area and Regional offices as well.

The telephone number for the OSHA office closest to you should be listed in your local telephone directory. If you are not able to obtain this information, you may contact OSHA's Office of Information and Consumer Affairs at (202) 219-8151 for further assistance in identifying the appropriate contacts.

[52 FR 31877, Aug. 24, 1987; 52 FR 46080, Dec. 4, 1987; 53 FR 15035, Apr. 27, 1988; 54 FR 6888, Feb. 15, 1989; 54 FR 24334, June 7, 1989; 59 FR 6170, Feb. 9, 1994; 59 FR 17479, April 13, 1994; 59 FR 65947, Dec. 22, 1994; 61 FR 5507, Feb. 13, 1996; 61 FR 9227, March 7, 1996]

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