

Emergency Calls: Local Telephone Numbers

Police Department _____

Fire Department _____

First Aid - Medical _____

Health Unit _____

Ambulance (Emergency Rescue)
Service _____

Security _____

Hospital _____

Postal Inspector _____

Taxi Service _____

CHEMTREC 800-424-9300

Poison Control Center _____

Employee Assistance Program 800-EAP-4-YOU
(800-327-4968)
TTY: 877-492-7341

HAZMAT Spill Team _____

Injury Compensation Control
Point _____

**For use only during regular work hours and only on Postal
Service premises.**

Explanation

The U.S. Postal Service is committed to providing its employees and customers with a safe and healthy environment and to complying with applicable safety laws and regulations. A key strategy in the Postal Service's *Strategic Transformation Plan* is building an effective and motivated workforce, and a hazard-free workplace will help us to achieve that goal.

This handbook will help maintenance personnel understand the policies, procedures, and guidelines relevant to their work. Maintenance Policies and Programs (MPP), the Maintenance Technical Support Center (MTSC), and Safety and Environmental Performance Management developed Handbook EL-803 for the use of Postal Service maintenance and maintenance-related personnel.

Revision

Because of changes in Postal Service policy and Occupational Safety and Health Administration standards, the December 2009 edition has been revised.

Online Availability

You may view this handbook in electronic format on the Postal Service PolicyNet Web site.

1. Go to <http://blue.usps.gov>.
2. Under "Essential Links" in the left-hand column, click *PolicyNet*.
3. Click *HBKs*.

Ordering Instructions

You may order printed copies of Handbook EL-803 from the Material Distribution Center (MDC) using the Touch Tone Order Entry (TTOE) system. Call 1-800-273-1509.

You must be registered to use TTOE and must wait 48 hours after registering before you place your first order.

Comments and Questions

Address any comments and questions on the content of this handbook to:

SAFETY AND HEALTH
US POSTAL SERVICE
475 L'ENFANT PLAZA SW RM 9801
WASHINGTON DC 20260-4231

Effective Date: This handbook is effective November 2013.

Note: This material is to be used only during authorized work hours and on Postal Service premises.

A handwritten signature in dark ink, consisting of several loops and a long horizontal stroke extending to the right.

Rosemarie Fernandez
Vice President
Employee Resource Management

A handwritten signature in dark ink, featuring a stylized 'D' and 'W' followed by a long horizontal stroke.

David E. Williams
Vice President
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Introduction

A. Responsibilities of Maintenance Personnel

This handbook provides minimum safety and health performance standards for Postal Service maintenance personnel to prevent unsafe acts and injuries. The Postal Service encourages facility managers to strengthen these standards to meet local needs.

As a maintenance employee, you may be exposed to a wider variety of hazards than most Postal Service employees. Your positive attitude and concern for health and safety are the keys to preventing accidents.

This handbook lays out safety and health rules and procedures for your job in clear, concise language. It is designed to help you get the information you need quickly and easily. The instructions are practical, based on lessons learned on the job by thousands of Postal Service employees.

This guide is not all-inclusive; it does not cover every safety issue. Instead, it serves to make you aware of potential hazards and employee performance errors that have resulted in injuries. Detailed safety and health procedures can be found in Postal Service management instructions, equipment manuals, maintenance management orders, and supplemental local rules and procedures.

Only with your total cooperation and diligence, working closely with your supervisor, can we continue to improve our safety program. If we all work together to recognize and identify unsafe conditions and unsafe acts, the Postal Service can achieve an injury-free workplace.

B. Reporting Unsafe Conditions or Acts

If you have suggestions about making your facility safer, submit them to your supervisor. You can submit a suggestion by using either: (1) the eIDEAS Program found on the Postal Service Blue page (intranet), or (2) PS Form 1270, *Idea Proposal*.

If you observe an unsafe condition or an unsafe act, report it to your supervisor immediately. Use PS Form 1767, *Report of Hazard, Unsafe Condition, or Practice*, to document the condition. If you wish to remain anonymous, file PS Form 1767 directly with your installation's safety personnel. Without revealing your name, they will immediately give the report to your supervisor for necessary action. (In such cases, safety personnel must not disclose the name of the individual making the report.)

Remember: Any injury can be prevented!

SECTION I

General Safety Rules

Safety rules are established for your benefit. Postal Service employees must observe safe working practices and Postal Service safety rules. Your responsibility to observe safety rules is mandated by the Occupational Safety and Health Administration (OSHA) under Public Law 91-596, as amended by the Postal Employees Safety Enhancement Act (PESEA). General safety rules include (but are not limited to) those listed in A through C.

A. Observing Personal Safety Standards

- Observe and obey all facility rules, procedures, signs, and regulations.
- Never work under the influence of intoxicants or narcotics.
- Never bring or have in your possession on Postal Service premises contraband materials such as firearms, dangerous weapons, fireworks, intoxicants, or narcotics.
- Never possess drugs on Postal Service premises unless a physician has prescribed the drugs for treatment of a specific ailment or disease, and you have notified the medical unit or your supervisor in advance.
- **If you are taking prescription drugs that impair physical or mental ability, never drive, climb ladders, operate vehicles, or work on moving equipment.**
- **Never smoke in any Postal Service facility.** (See Section II-F, Smoking.)
- Never engage in horseplay, scuffling, or fighting on Postal Service premises.

- Never run on Postal Service premises. Running is risky behavior; under normal conditions, running is prohibited.
- Report hazards and unsafe conditions to your supervisor immediately. If you are involved in an accident or are injured, report it immediately.
- Know your limitations. Never attempt a maintenance activity that exceeds your physical limitations or knowledge. Discuss your limitations fully with your supervisor or designated safety professional.
- Maintain property and equipment to keep your work area safe and healthful.
- Drive defensively and professionally; always extend courtesy, and obey state, local, and Postal Service regulations when driving a vehicle owned, leased, or contracted by the Postal Service.

B. Operating Equipment, Machinery, and Tools

1. General

- Operate or maintain equipment only when you are authorized to perform such work.
- Never operate equipment that is out of service.
- Never operate defective equipment. Tag the equipment as defective using PS Form 4707, *Out of Order* (tag), and remove it from service. Report the situation to your supervisor immediately.
- Make sure your supervisor reviews and approves configuration changes that you propose to make to any building or equipment. Resolve safety discrepancies before implementing the changes.
- Never operate equipment or machinery unless guards are in place and all other safety devices (such as E-stops) are functioning.

Note: Some maintenance procedures require bypassing guards or safety devices. Follow the procedures prescribed for this work.

- Keep clearly labeled stop buttons in plain view and accessible, including emergency-stop buttons on power-driven equipment.
- Make sure energy accumulation devices such as pneumatic lines, hydraulic lines, and capacitors are depleted to zero-energy status and locked out before repairs are started on these devices.

2. **Compressed Air**

- Compressed air is extremely hazardous. Never use compressed air to blow dust, dirt, or debris off yourself or anyone else. Whenever possible, remove debris by vacuuming.
- If authorized to use compressed air for cleaning machinery or parts, use air compressed at less than 30 pounds per square inch (psi). If required to use more than 30 psi, use a hose equipped with a nozzle that will deadhead at less than 30 psi in case the outlet is obstructed.
- If you are authorized to use compressed air or are performing a task that could cause eye injury, wear eye protection that is marked as meeting American National Standards Institute (ANSI) standard Z87.1, *Occupational and Educational Personal Eye and Face Protection Devices*.

C. Climbing, Lifting, and Maneuvering Operations

- Never climb onto or cross over a conveyor unless the system is locked out.
- Never climb onto or cross over rolling mail transport equipment.
- Never attempt to retrieve fallen, misthrown, or caught mail from moving conveyor equipment.
- Never throw tools and equipment from one employee to another. Never drop them from one level to another. Transfer tools and equipment from hand to hand or use a suitable rope and tool bucket.

- Always use handrails on stairs, elevated platforms, scaffolds, or other elevations as provided.
- Always inspect trailer and truck floors to determine if they can support the load before moving powered industrial equipment or conveyors onto them. Prevent trailers from rolling away from docks by using wheel chocks and positive-locking parking brakes.
- Never block aisles and emergency exits with equipment; keep them open for emergencies and egress. Always use designated traffic aisles when traveling within a facility. Never take shortcuts through work areas.
- Never use hampers to move heavy boxes and other heavy articles through any Postal Service facility. Use platform trucks, items 1070 or 1074, or other heavy-duty, large-wheeled industrial carts. To prevent injury, it is better to push — rather than pull — carts. If you need help, ask for it!

SECTION II

Fire Prevention and Protection

Fire prevention is the correction of unsafe practices or conditions that could cause a fire. Every fire is ignited through a combination of heat, fuel, and oxygen. In most cases, fires are caused by human acts or failure to act. Procedures to reduce unsafe practices and conditions that could cause fires are described in A through I.

A. Reporting Fire Hazards

- Report suspected fire hazards to your supervisor immediately.

B. Emergency Evacuation

- Be familiar with your floor plan. Know the location of fire alarm stations and fire exits and how to use them. Know your role in your facility's emergency action plan.
- Be familiar with and know how to use local emergency phone numbers (including 911, if available), as well as numbers for the fire department, police department, hospitals, and ambulance services. (See Emergency Calls: Local Telephone Numbers, inside the front cover of this handbook.)
- Be familiar with your workplace's evacuation alarm system. If the alarm is sounded, follow the directions of your assigned emergency evacuation team member and supervisors and go directly to the designated assembly area.
- Evacuate immediately. Never go to your locker for personal items.

C. Fire in Your Work Area

- So that instructions and directions can be heard and understood by everyone, during a fire evacuation disruptive actions and unnecessary talking are not allowed.

- In case of fire, sound your local alarm first. Take the steps required to report the fire to fellow employees and the fire department.
- If you have any doubt about your ability to extinguish the fire, leave the area immediately.
- If you have received training on how to use fire extinguishers and can use them safely, you may attempt to put out an incipient-stage fire only.
- Never try to fight a fire involving electrical transformers; they may contain carcinogenic substances called polychlorinated biphenyls (PCBs).
- Report fires involving electrical transformers to your local fire department immediately.
- **Never try to fight a fire that involves the structure of the building. Evacuate immediately.**

D. Fire-Fighting Equipment

- Fire hoses, hydrants, and sprinkler systems are to be used only by your local fire department to fight fires - not for any other purpose.
- Never lock exit doors except with approved fire-exit locking mechanisms.
- Keep passageways that lead to fire exits and to fire-extinguishing equipment (such as fire extinguishers and alarm boxes) accessible at all times.
- Never stack or store material within 18 inches of a sprinkler head. Report deficiencies to your supervisor immediately.
- Fire-extinguishing equipment must be installed properly and maintained in operating condition.
- Report the location of used or damaged fire extinguishers to your supervisor immediately.
- If a fire extinguisher has been used, hang another one in its place as soon as possible.

E. Flammable Materials

- Store flammable and combustible liquids or solvents (up to 5 gallons) *only* in approved safety cans. Store safety cans *only* in approved storage cabinets. Never store more than 120 gallons of material (in approved safety cans) in one approved storage cabinet.
- Label the contents of safety cans properly and store them in designated areas.
- Dispose of oily rags or other flammable waste in closed metal containers.
- Gases or vapors escaping from the contents of damaged parcels may be flammable or toxic. Follow the procedures outlined in Management Instruction (MI) EL-810-2006-3, *Response to Hazardous Materials Releases*, and the guidance found in material safety data sheets (MSDSs) for handling spills and leaks of specific products and chemicals.
- Static electricity may cause sparks that start a fire. To prevent fires in portable gasoline containers, place them on the ground to fill them. During fuel transfer, keep the nozzle in contact with the container at the inlet.

F. Smoking

- Smoking is not permitted in any room, work area, or section of any building leased or owned by the Postal Service. The no-smoking rule applies to enclosed and open-air platforms, ramps leading from those platforms, and public lobbies.
- Smoking outdoors on Postal Service property is limited to designated smoking areas.
- Smoking is not permitted within 25 feet of gasoline pumps, gasoline and oil storage tanks, spray paint operations, or any other operation involving flammable liquids or gases.

G. Hot Work

Hot work (cutting, chipping, grinding, or welding using electric arcs or oxy-fuel gas flames) presents a potential for fire and explosion and requires a hot-work permit.

- Never perform hot work:
 - When a sprinkler system is out of order.
 - Within 50 feet or less of exposed, readily ignitable material.
- Never perform hot work in a potentially explosive atmosphere, where the following materials are present:
 - Flammable gases, vapors, liquids, or ignitable dusts.
 - Tanks, drums, or containers that have not been decontaminated of flammable material.
- If hot work cannot be moved to a hot-work area, it may be performed in an area made fire safe by removing combustibles or protecting them from ignition sources.
- When performing hot work, comply with Chapter 5 of Handbook MS-56, *Fire Prevention and Control*.

H. Hazardous Locations

- Always use nonsparking tools in battery rooms, spray paint operations, and other areas in your facility classified as hazardous.
- Never use open flames and spark-producing equipment in battery rooms, spray paint operations, and other areas in your facility classified as hazardous.
- Never use electrical equipment in spray paint areas except for approved paint operations equipment and wiring housed in rigid-metal conduits.

I. Electrical Appliances

The head of your installation, in conjunction with safety personnel, must authorize portable electric hot plates, coffeepots, and other electrical appliances with heating elements.

- The authorization must certify that all electrical appliances meet the following conditions:
 - Located safely away from combustible materials.
 - Approved by Underwriters Laboratories or Factory Mutual and unmodified.
 - Equipped with a pilot light or warning light on the unit (or the wall outlet must have an easily viewable pilot light, warning light, or timer).
 - Checked to ensure they are working properly, with cords and plugs in good condition.
 - Inspected periodically by safety personnel or a maintenance supervisor.
 - Approved for return to service by safety personnel or a maintenance supervisor if repaired.
- In addition:
 - Never use unauthorized electrical appliances.
 - Unplug appliances when not in use.
 - Take out of service any appliance with defects such as frayed wiring or a defective plug immediately.

SECTION III

Office

A. Observing Office Safety Standards

- To eliminate tripping hazards, tipping hazards, and injuries when operating drawers, doors, cabinets, and equipment, follow these safety procedures:
 - Keep desk and file cabinet drawers and doors closed when not in use.
 - Open file cabinet drawers slowly, while standing to one side.
 - Close one file drawer before opening another.
 - Fill the lowest drawers in a file cabinet first.
 - Store heavy objects in the lowest drawers of a file cabinet.
 - Keep the tops of file cabinets and bookcases free of files, papers, books, or other materials.
 - Never operate or attempt to repair office equipment or machinery unless you are authorized to do so.
 - Always maintain the guards that cover moving parts on office equipment to prevent snagging clothing, hair, or fingers.
- Take additional safety precautions around your workstation and other office areas:
 - Keep paper cutters in a closed, locked position when not in use.
 - Exercise care when you use and store sharp or pointed instruments, such as letter openers, scissors, pencils.
 - Use a wetting device or glue stick to seal envelopes.

- Adjust the video display terminal, keyboard, mouse, chair, and other equipment for maximum comfort.
 - When seated, keep your chair firmly on the floor. Tipping a chair backward on its rear legs is hazardous; it can lead to accident and injury.
- Handle cleaning fluids with care; they may be toxic, flammable, or both.
 - Keep the floor clear of debris (such as rubber bands, straps, and paper clips).
- B. Clearing Obstructions
- Keep aisles clear of tripping hazards (wastebaskets, electrical cords, protruding utility outlets, boxes, rain gear, and trash).
 - Keep floors dry. If you spill water or any other liquid on the floor, immediately wipe it dry to eliminate slipping hazards. If you need to clean a large spill, call your supervisor for assistance.
- C. Climbing
- When you must climb, use a step stool, ladder, or other equipment designed for that purpose. Never climb on chairs or other office furniture.
 - When climbing, wear appropriate footwear only (see Section VI-A-4, Personal Safety and Protective Equipment, Footwear).
- D. Lifting
- When lifting, use your legs instead of your back to support the object's weight.
 - Ask for assistance when the object is too heavy, is awkwardly shaped, or blocks your view when you carry it.
 - See Section VII-A, Lifting Techniques, for further information.

SECTION IV

Occupational First Aid

The Postal Service's primary concern is that you receive proper treatment for injury as soon as possible. The rules and procedures in A through C are intended to protect you if you are injured on the job.

A. Reporting Injuries or Illnesses and Getting Treatment

- If you are injured or become ill from work-related causes, report the problem to your supervisor immediately, even if it seems minor. Slight injuries that are not treated promptly can become serious.
- You must receive the medical evaluation or first aid authorized by procedures outlined in the *Employee and Labor Relations Manual* (ELM) 543.
- Never move a seriously injured employee unless he or she is in danger of further injury by remaining in the area.
- Know your facility's procedure for getting medical assistance.

B. Eye Injuries

- Never allow fellow employees to attempt to remove foreign objects from their eyes.
- Make sure that any eye injury (to you or someone else) is treated immediately by professional medical personnel.
- If corrosive liquids such as acids or other irritants splash in your eyes, flush them for 15 minutes thoroughly with clear, cold running water. You may need help to hold your eyes open. Seek assistance immediately.

- C. Emergency First Aid Telephone Numbers
- Learn the location of emergency first aid telephone numbers and the procedures for obtaining help. (See Emergency Calls: Local Telephone Numbers, inside the front cover of this handbook.)
 - **Notify your supervisor of any emergency immediately.**

SECTION V

Health, Sanitation, and Housekeeping

A neat, orderly workplace is a safe and efficient place to work. You are responsible for keeping your immediate work area clean. This section describes how to maintain a clean workplace and control rodents and other pests.

A. Personal Items

The Postal Service provides lockers and changing rooms so that you can keep clothing and other personal belongings out of operating areas. Periodic inspections of lockers may be conducted in accordance with the National Agreements.

- Keep your person, clothing, and lockers clean, neat, sanitary, and free of debris. Never store items on top of your locker.
- Eat and store food and beverages only in authorized areas. Never store or consume them in rest rooms, locker rooms, maintenance shops, or where chemicals are stored.
- Dispose of food wastes, wrappers, cans, and other materials in properly designated receptacles. Local solid waste management and recycling plans frequently require separation and recycling of these materials.

B. Obstacles

- Always keep aisles, passageways, stairways, access to ladders, exits, and walking areas free from obstructions.
- Make sure electrical panels, switches, fire-fighting equipment, emergency exit doors, fire-alarm stations, and Inspection Service breakout doors are kept clear of obstructions.
- Rope off or otherwise designate work zones where maintenance work is being performed.

- Never enter roped-off or designated areas where maintenance work is being performed or where hazardous or slippery conditions exist if you are not working in those areas.

C. Spills and Leaks

- If you suspect that a spilled substance is hazardous or is releasing vapors, evacuate the area immediately and notify your supervisor, or activate your facility's emergency action plan.
- If the spilled substance is flammable, take every precaution to avoid igniting the substance.
- Never start, stop, plug, or unplug electrical equipment around a flammable spill. These actions could generate sparks that ignite the flammable substance.
- If an incidental spill (a spill limited in quantity, exposure potential, and toxicity) of a known substance occurs, notify your supervisor for immediate cleanup.

D. Occupational Health Concerns

Hazard communication programs are designed to increase your awareness of chemical hazards in the workplace so that you can effectively prevent injury to yourself and others. Be attentive when attending the programs. Knowledge and training are your best defenses against health hazards.

- Follow the health specifications of manufacturers and product providers.
- Never intentionally disturb asbestos or lead-containing materials. If in doubt about the presence of these materials, consult your supervisor.
- Always use personal protective equipment when the situation requires its use.

E. Ergonomics

Ergonomic program is designed to assist in preventing or minimizing injuries resulting from musculoskeletal disorders (MSDs). Knowledge and training are your best defenses against MSD risk factors.

- Requires a workforce trained to use safe work methods.
- Requires a workforce trained to recognize potential MSD risk factors.
- Participate in a process to implement ergonomic improvements in your work area.
- Use available methods to reduce ergonomic risk factors when performing repair, preventative and routine maintenance on MPE.

F. Work Areas

- Follow the manufacturer's instructions and warnings regarding materials, supplies, and equipment.
- Clean up scraps, dirt, or other refuse at day's end or job's end, whichever comes first. Do not allow waste, scrap, string, rubber bands, packing materials, or other debris to accumulate on floors, tables, cases, docks, elevator pits, dock levelers, or in and under stairways.
- **Sweep up broken glass; never pick it up. For the safety of cleanup personnel, wrap broken glass in heavy paper with "Broken Glass" marked plainly on the paper.**
- Rope off wet floor areas with high-visibility, safety-marking rope and post "Wet Floor" signs until the floors are dry.
- Never mix cleaning compounds. The chemicals used in them (especially ammonia and chlorine) can form toxic or explosive mixtures when combined.
- Keep waste receptacles out of traffic lanes. Never place a receptacle at the top of a staircase.
- Follow these storage procedures:
 - Store flammable liquids in nonflammable cabinets. Store oily rags, waste, clothing, or other refuse in closed metal containers provided for this purpose.
 - Keep tools and other portable equipment in their assigned storage units when you are not using them.

SECTION VI

Personal Safety and Protective Equipment

Taking responsibility for your own personal safety and the safety of those around you requires you to use good judgment and common sense. Always wear the personal protective equipment (PPE) required and supplied by the Postal Service for the jobs or tasks that you perform. If you have questions about PPE, see your supervisor. When handling any chemical, refer to the chemical's material safety data sheet (MSDS) for PPE recommendations.

A. Personal Safety

1. Clothing

- Strictly adhere to PPE requirements established by senior maintenance officials. Requirements will vary according to the work performed.
- 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. Do not wear such clothing if you work with machinery, vehicles, or moving equipment.
- Your facility may have a dress code for summer or very warm weather. Check with your supervisor.
- Never wear a necktie around moving machinery or automated equipment.

2. Jewelry

- Never wear jewelry such as necklaces, neck chains, pins, dangling earrings, bracelets, watches, watch chains, or rings around moving machinery or exposed electrical circuits.

3. Hair

- If your hair restricts forward or peripheral vision, or if your hair can become entangled in moving machinery or equipment, tie it back or otherwise confine it.

4. Footwear

- Always wear appropriate footwear that is fully enclosed at the heel, toe, and sides and is made of leather or a substantial synthetic material (canvas and nylon are not acceptable).
- To eliminate slips, trips, and falls, do not wear these types of footwear in work areas:
 - Heels more than 1½ inches and soles more than ½ inch in height.
 - Spike heels.
 - Open shoes (including those with open sides, toes, or heels) such as thongs, sandals, mules, house slippers, clogs, or wedgies.
 - Heels with taps.
 - Hard plastic soles or heels.
 - Shoes with cloth, nylon, or mesh-woven tops, such as tennis shoes, athletic or jogging shoes (except those with leather or leather-like uppers), or moccasins.
 - Shoes no longer adequate because of disrepair.

B. Personal Protective Equipment

1. Eye and Face Protection

- Wear eye and face protection clearly marked as meeting ANSI standard Z87.1 when working in areas with hazards that can cause eye injuries.
- Wear prescription safety glasses with side shields whenever you are exposed to work hazards that could cause eye injuries.

- Safety goggles and 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 (see Section I-B-2 for restrictions on the use of compressed air).
 - Working in areas designated as rewrap operations, where eye hazards exist.
 - Breaking concrete or other material that could cause flying objects or debris.
- Never look at or in the direction of a welding arc without appropriate eye protection; doing so can cause painful damage to your eyes.
- Wear the correct shade of eye protection whenever you observe or perform a welding operation.
- To protect the eyes of your fellow employees, use appropriate shielding against arc flashes.
- When working on equipment designated as a light-source hazard (ultraviolet lamps and other bright, light-emitting devices), wear eye protection appropriate for such hazards.
- Make sure the lenses of eye-protection devices are free from cracks, chips, or scratches.

2. Hand Protection

- Wear proper hand protection (such as gloves) to avoid cuts, scrapes, and other hand injuries.
- Wear proper gloves when handling corrosive or contaminated objects that can injure your hands. If you are not sure which glove is right for the task, ask your supervisor.
- The Postal Service forbids the use of gauntlet-type gloves.

- Protective hand creams and lotions are not considered PPE by OSHA definition. Although they offer some protection from exposure to oil, grease, chemicals, or corrosive or irritating cleaning compounds, creams and lotions are not a substitute for proper PPE.

3. **Head Protection**

- Wear approved hard hats when you are at risk of injury caused by:
 - Exposure to falling objects.
 - Striking your head against low stationary objects.
 - Head injury in areas designated for hard hat protection.
 - Work above floor level.
 - Work where ladders, mechanical lifts, and platforms are required.
- **Wear an approved hard hat when you are at risk of injury due to operation of powered mechanical equipment with overhead hazards.**
- When working outdoors, wear regulation hats, caps, or pith helmets recommended for protection from the sun or cold.
- You may substitute an approved bump hat for a hard hat **only** when there is no risk of falling objects.

4. **Hearing Protection**

- If noise levels on your job exceed 85 decibels for the full 8-hour period, safety and health personnel will provide a selection of approved hearing protection devices and assist you with their fit and care.
- You might be required to wear hearing protection if noise levels cannot be kept below OSHA limits.
- In areas where hearing protection is required, never use a radio headset as a substitute for an approved hearing protector.
- If you experience discomfort at any noise level, request hearing protection.

5. Respiratory Protection

- When exposed to toxic vapors or dusts, you might be required to wear a respirator for protection.
- If your job requires the use of a respirator, a medical officer will evaluate you to ensure that you can wear it safely.
- On the clock and on Postal Service premises, your supervisor or safety or medical personnel will provide an approved respirator and show you how to fit and use it properly.
- Keep your respirator clean, inspect it frequently as instructed, and store it in a clean place.

6. Filtering Facepieces

Filtering facepieces (nuisance dust respirators) are suitable for comfort and to avoid allergens (like pollen) and nuisance dusts. If you wear your own filtering facepiece (FFP) or one provided by the Postal Service, note the following information:

- **The only kind of FFP that will protect you from toxic materials is one selected and tested as part of a respirator program. For your protection, wear an FFP approved by the National Institute for Occupational Safety and Health (NIOSH).**
- Follow the manufacturer's instructions to ensure a proper fit.
- Observe recommendations for using, storing, and cleaning. A dirty FFP can cause skin irritation or other health problems. If an FFP causes breathing problems or other discomfort, do not wear it. Consult with safety or medical personnel if you experience problems.
- If you need one, the Postal Service will supply a carefully selected respirator for toxic materials in accordance with OSHA regulations.

SECTION VII

Lifting and Material Handling

A. Lifting Technique

Lifting is such a common part of our daily activity on the job that most of us don't think about it - so we often do it incorrectly. Lifting incorrectly is a major cause of on-the-job injuries such as strains, pulled muscles, disc lesions, and painful hernias.

- Before lifting anything, check the immediate area and route of travel to make sure that no obstruction or hazard can cause a slip, trip, fall, or striking-against accident.
- If hand injury is possible, wear proper gloves.
- Assess the load. If it appears too heavy or bulky to lift comfortably, ask for assistance.
- Use the following simple techniques for proper lifting:
 - Place one foot alongside the object being lifted and one behind it. This gives you greater stability and your rear foot can provide a better upward thrust.
 - Keep your back straight, nearly (but not completely) vertical. A straight back keeps the spine, back muscles, and organs of the body in correct alignment and minimizes the compression of organs that can cause a hernia.
 - Use a squatting position.
 - Pull your chin in so your neck and head are in a straight line with your back. That helps to keep your spine straight and firm. It is not necessary to force your chin against your chest.

- A good 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.
 - When your arms are held away from your body, they lose much of their strength and power. Keep the load you are lifting drawn close against your body. Tuck your arms and elbows against your side to keep the body weight centered.
 - Position your body with your weight centered over your feet. This provides a more powerful line of thrust and ensures better balance. Start the lift with a thrust of your rear foot.
 - To avoid a common cause of injury, avoid twisting your body trunk while you are lifting. Simply turn your forward foot out and point it in the direction you are moving.
- Never try to recover a dropping object (or a lost load). Get out of the way and let it fall.
 - Never lift or release a load suddenly; either action can strain your spine and back muscles.
 - Always lift, move, and lower objects with smooth motions.
 - If available, use methods to elevate mail tubs, trays, and bundles off the floor to reduce bending and lifting.
 - If available, use equipment such as pallet lifters, container tilters, etc. for loading and unloading equipment pallets to reduce bending, reaching, and lifting.
- B. Material-Handling or Hoisting and Rigging Equipment
- Don't perform hoisting and rigging activities unless you know the proper techniques for hoisting and rigging.

- Don't perform hoisting and rigging activities unless the proper instructional signs and barriers are posted (see Section XXIV-A, Identification of Work Areas).
- Before using, inspect ropes, chains, cables, slips, jacks, skids, slings, straps, and other hoisting and rigging apparatus for defects or modifications. Also inspect ropes, chains, and cables for illegal splicing, frayed parts, or worn and stretched portions.
- Always tag with PS Form 4707 and remove from service any damaged or defective material-handling equipment or components. Report them to your supervisor.
- Never lift a load and leave it suspended or unattended.
- Never exceed the lifting capacity of a hoisting device.
- Never use manila or hemp rope in or around acid or other corrosive substances unless you are specifically authorized to do so. Your supervisor must determine if a rope that has been used under such conditions is still serviceable.

C. Containers, Towveyors, and Trucks

- Never allow the load on a towveyor, dolly, or similar vehicle to exceed the height of the load-retaining rails.
- When loading a truck (stake body or pickup), the driver-operator is responsible for making sure that the load is secured (regardless of the legal height of the load).
- Never stack packages on the top edge of the container walls. Loads must not exceed the height of container walls.
- When pulling a container from a container loader, stand to the side of the container.
- Always check equipment prior to use. Tag with PS Form 4707 and remove from service any container with defective gate latches, mesh, pins, pin-lift handles, pin-lift chains, missing hardware, non-functional mechanical parts or brakes.

SECTION VIII

Ladders

Always use a ladder to reach high places. Never climb or stand on crates, boxes, tables, swivel chairs, or other makeshift devices to reach high places; you risk a fall and serious injury. Guidelines for using and maintaining ladders are provided in A through D.

A. General

- Wear appropriate personal protective equipment (PPE) when using a ladder.
- Never paint a ladder; paint may hide defects.

B. Selection

- Use the correct size ladder for the job.
 - On a straight or extension ladder, never climb above the third rung from the top.
 - On an ordinary stepladder, never climb above the second tread from the top.
- Before using a ladder (wood or metal) inspect it for defects and unsafe conditions such as loose rungs, weak treads, and broken, bent, or stuck fittings. Tag a defective ladder with PS Form 4707 and remove it from service immediately.
- Use approved safety feet on all straight and extension ladders.
- **Never use makeshift arrangements in place of approved ladders. The Postal Service strictly prohibits the substitution of makeshift devices for ladders.**

C. Placement

- Set ladder feet about $\frac{1}{4}$ of the ladder length away from the wall that the ladder is leaning against.
- Extend a ladder at least 3 feet above the surface you want to reach (such as a rooftop).
- Place ladders only on solid floors and the ground. When using ladders on fixed platforms or catwalks, you must take additional measures to ensure your safety. (See your supervisor for guidance on safety measures when using a ladder.)
- **Never increase the height of a ladder by placing it on top of an elevated object.**
- Tie a ladder securely in position or station an employee at its base to steady it.

D. Use

- Never allow more than one person at a time to be supported by a straight ladder, extension ladder, or stepladder (unless the ladder is designed for two people).
- Any ladder 18 feet or more in length must be carried by two people.
- Only authorized and properly trained employees may work in areas where fall protection is necessary.
- When going up or down a ladder, use each rung, face the ladder, and use both hands for climbing.
- Before climbing or descending, make sure footwear is free of grease, mud, or other slippery substances.
- **Never do any of the following when using a ladder:**
 - Climb a ladder while carrying materials. Pull up materials in a container or with a securely attached rope.
 - Use a metal ladder when working on or within contact range of electrical panels or circuits or when changing fluorescent tubes (see Section XXIII-B-5, Fluorescent Tubes and Mercury).

- Use a ladder in a horizontal position as a runway or scaffold.
- Use a stepladder as a straight ladder.
- Place a ladder in front of a door opening toward the ladder unless the door is blocked open, locked, or guarded.
- Place a ladder against a window.
- Leave tools or materials lying on ladder steps or on top of a stepladder.

SECTION IX

Scaffolds

A. Construction

You must be authorized to use scaffolds and know how to use and assemble them correctly. The information below is excerpted from OSHA Standard 1910.28, *Safety Requirements for Scaffolding*.

- A scaffold must be built of sound material and must be capable of supporting four times the combined weight of the employees and materials it will hold.
- The footing or anchorage for a scaffold must be sound, rigid, and capable of carrying the maximum intended load without settling or displacement.
- Never use unstable objects such as barrels, boxes, loose bricks, or concrete blocks to support scaffolds or planks.
- Scaffold planks should extend 12 inches beyond end supports (no less than 6 inches, no more than 18 inches).
- Always erect, move, dismantle, or alter a scaffold under the direction of a properly trained maintenance supervisor.
- Planking must be scaffold grade, or equivalent, as recognized by approved grading rules for the species of wood used.
- Securely fastened guard rails and toe boards must be provided on the outer edges and end of the platform for any scaffold 10 feet or more above ground.
- Guardrails must (1) be 36—42 inches high, (2) have a middle rail if required, and (3) be equipped with 4-inch toe boards.

- If anyone is required to work or pass under a scaffold, it must have a No. 18 gauge wire, half-inch mesh screen between the top rails and the toe boards.
- The maximum spans allowed for planks 2 inches x 9 inches or wider are shown in the following table:

Material	Full Thickness Undressed Lumber			Nominal Thickness Lumber	
Working load (in pounds per square foot (psf))	25	50	75	25	50
Permissible span (in feet)	10	8	6	8	6

B. Work Practices

- Always wear hard-hat safety protection when working on or around scaffolding.
- If a scaffold does not have a built-in access ladder, one must be provided.
- When work is being performed in elevated locations, rope off the area and post appropriate warning signs.
- When transporting metal pipe scaffolding to and from the job, tie all sections securely to prevent scaffolding from sliding in the truck or conveyance.
- Never:
 - Assemble makeshift arrangements in place of approved scaffolds.
 - Use metal scaffolding where it might contact or come near live wires or other electrical systems.
 - Use metal scaffolding that is bent or otherwise changed.
 - Move or reposition a scaffold while it is occupied.
 - Climb scaffold ladders while carrying materials. Pull the materials up in a container or with a securely attached rope.

- Always:
 - Lock the wheels securely when you use a scaffold equipped with wheels.
 - Fasten working decks securely to the scaffolding.
 - Place scaffolds directly under or along the work to be performed.
 - Use a rope to raise or lower the sections when erecting or dismantling a scaffold.

SECTION X

Motor Vehicle Operations

Motor vehicle accidents are a major source of serious personal injury for Postal Service employees who drive on the job. You are expected to drive Postal Service vehicles in a dependable, efficient, safe, and courteous manner. When driving, you are responsible for motor vehicle safety and you must obey all safety rules.

Your desire to drive safely, driving ability, and practice of defensive driving are the keys to preventing motor vehicle accidents. *Defensive driving* means driving safely in spite of conditions around you and the actions of other drivers and pedestrians.

A. Licenses

- Only authorized personnel can operate Postal Service vehicles.
- You must have in your possession a valid state driver's license when operating a Postal Service vehicle or any vehicle being used for Postal Service business. (State driver's licenses are not required for operating powered industrial trucks on Postal Service premises.)
- Inform your supervisor immediately if your state driver's license is revoked or suspended.
- You must be authorized and trained to operate equipment such as snowplows, sanders, and sweepers.

B. Civil Laws

- Always obey state and local vehicle codes when driving any Postal Service vehicle.
- **Postal Service drivers are not exempt from motor vehicle codes.**

- Police citations for traffic violations are your personal responsibility, are charged to your driving record, and can affect your personal insurance rates.
- Promptly report to your supervisor any traffic violation committed while on duty.

C. Vehicle Regulations

1. **Vehicle Safety Inspections**

- Check your assigned vehicle for safety daily as outlined in Notice 76, *Expanded Vehicle Safety Check*, before leaving a Postal Service parking lot or garage.
- Check to make sure that a sealed *Accident Report Kit* (Item 087-H) is in your assigned vehicle.
- Report mechanical defects, failures, and vehicle damage to your supervisor; use PS Form 4565, *Vehicle Repair Tag*.
- Tires must have a tread depth of 1/16 inch or more.
- **Never drive a vehicle with faulty brakes or other defective equipment.**

2. **Safety Belts**

- Wear a safety belt whenever a vehicle is moving.
- Carry authorized passengers only.
- Every passenger must remain seated and wear a safety belt whenever a vehicle is moving.

3. **Doors**

- All vehicle doors must remain closed when a vehicle is moving.
- All vehicle doors must be locked when a vehicle is left unattended and out of the driver's immediate sight.

4. **Fueling**

- Shut off the motor before refueling.
- Know the location of the emergency shut-off switch for the fuel pump.
- Make sure that a fire extinguisher is located nearby.

- Never smoke within 25 feet of gasoline pumps or gas or oil storage tanks.
- To avoid static sparking, make sure the pump hose nozzle touches the edge of the vehicle's gas tank.
- Make sure that static electricity does not cause sparks that can start a fire. To prevent a fire in a portable gasoline container, place it on the ground to fill it. During fuel transfer, keep the nozzle in contact with the container at the inlet.

5. **Engine Exhaust**

- Carbon monoxide, the gas released by internal combustion engines, is odorless, tasteless, colorless - and deadly.
- **Before you run an engine inside a building, always connect an exhaust hose to the vehicle or make sure there is adequate ventilation.**

6. **Tire Safety Cages**

- To inflate or deflate a tire mounted on split rims, place it 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 a safety cage, use a clip-on air chuck with a remote valve so that you can stand clear.

D. **Driving Regulations**

1. **General Rules**

- When operating a motor vehicle, never wear headphones or other devices that can interfere with your hearing.
- Obey state and local traffic laws and Postal Service traffic signs, instructions, and directives.
- Move your vehicle only when you are absolutely certain that it is safe to do so, especially if children or others might be nearby. If necessary, get out of your vehicle, circle it, and check underneath it to make sure no one is in the vehicle's path.

- Yield the right of way and make any concession necessary to avoid an accident.
- Use your turn signal before turning, changing lanes, or pulling to or away from the curb or shoulder of the road.
- Before entering an intersection, slow down and look left, then right, then left again. Remember that, on a two-directional road, danger from the left is always closer to you.
- Enter any **unregulated** or **uncontrolled** intersection slowly and cautiously.
- Look, listen, and **live**. Cross safely at railroad crossings and obey highway rail-crossing warnings.

2. Speed

- Understand how your vehicle handles and performs and know your own driving capability in a variety of situations and rates of speed.
- The maximum speed limit on Postal Service premises and roadways is 10 miles per hour (mph) unless otherwise posted.
- **Never exceed the speed limit. Always drive at a safe speed, but keep in mind that the posted speed limit may not always be the safe one.**
- When following another vehicle in clear weather, you can judge the necessary distance between it and your vehicle by using the 4-second, time-lapse rule. Choose a landmark. When the vehicle ahead of yours passes the landmark, begin to count, “one thousand and one, one thousand and two, one thousand and three, one thousand and four.” If you pass the landmark before you reach “one thousand and four,” you are following too closely.
- During bad weather, allow more distance between your vehicle and the one in front of you. If you are following large trucks (1 ton or more), increase the time lapse to 6 seconds or more.

- **Always maintain a safe stopping distance. Be especially careful and allow more distance during bad weather.**

3. Backing Up

- Whenever possible, avoid backing up. If you can, park where you will not have to back into or back out of a parking place. If you must back up, first walk around your vehicle to make sure there are no pedestrians, children, or obstructions in your way.
- If possible, have someone guide you when you are backing a large vehicle. The guide should stand to the side and rear of the vehicle and use hand signals, not oral directions.
- If you use a guide, you are still responsible for backing up safely. Use both rear-view mirrors and have them properly adjusted.
- **Never allow a back-up guide out of your vision, especially behind you, where the guide could be crushed against something.**

4. Parking

- Whenever a driver leaves a vehicle, the vehicle must be parked. To park the vehicle:
 - Apply the foot brake and place automatic transmissions in the park position. Place manual transmissions in gear. For postal vehicle service (PVS) vehicles 7 ton and above, place the transmission in neutral.
 - Turn the vehicle's front wheels toward the curb if you are on a flat surface or the vehicle is facing downhill. If the vehicle is parked facing uphill, turn the front wheels away from the curb.
 - Set the hand-parking/emergency brake. For PVS vehicles 7 ton and above, you must apply the parking air brakes.
 - Turn off the engine and remove the key.

- Lock any sliding doors between the truck body and cab.

- If the vehicle will be out of your sight, lock it.
- These instructions apply to vehicles parked both on and off Postal Service premises.

5. Passengers

- Ride in Postal Service and General Services Administration vehicles only when authorized to do so. This rule applies to any vehicle used in Postal Service operations, including rented and leased vehicles.
- Every passenger must wear a safety belt when provided.
- If conventional passenger seats are not provided, use an approved auxiliary seat that faces forward and is equipped with a backrest and a safety belt.
- Never stand in a vehicle that is moving.

6. Loading

- Make sure that anything you load into a vehicle poses no hazard to the operator when the vehicle starts, stops, turns, or otherwise operates.
- Never place large, bulky items on the dashboard or anywhere in the vehicle where they can obscure vision or break the windshield during a sudden stop.
- Use proper lifting techniques when loading items into a vehicle (see Section VII-A, Lifting Technique).
- When loading a truck (such as stake body or pickup), the driver-operator is responsible for making sure that the load is secured (regardless of the legal height of the load).

7. Parking Lots

- Carpool parking spaces are reserved for carpools. Never park in them unless you are in a carpool.
- Use caution in Postal Service parking lots. Report any suspicious people or activities to your supervisor.

- Park in designated parking spaces only. When parking, center the vehicle between lines.
- Use designated traffic lanes only. Follow one-way directional signs in traffic lanes.
- Observe posted speed limits. Unless posted otherwise, the maximum speed in Postal Service lots is 10 mph.
- Observe traffic signals when entering and leaving Postal Service premises.
- Do not throw litter in parking lots; use trash receptacles.
- Obey posted signs in parking lots and access-road areas.
- Never:
 - Double park.
 - Park in areas designated for handicapped parking.
 - Park in fire lanes.
 - Block fire lanes or fire hydrants.
- Report to your supervisor any slippery spots on walking or driving surfaces caused by ice, snow, water, oil, transmission fluid, gasoline, or any other fluid.

E. Reporting Accidents

- If you are involved in an accident, you must:
 - Stop at the scene.
 - Help injured persons.
 - If necessary, have someone call for an ambulance or the police.
 - Safeguard the scene against further accidents.
 - Safeguard the vehicle.
 - Try to identify several witnesses.
 - Notify your supervisor promptly.
 - Follow the instructions in the *Accident Report Kit* (Item 087-H).

SECTION XI

In-Plant Powered Industrial Trucks

This section applies to certain kinds of material-handling equipment described in OSHA Standard 1910.178, *Powered Industrial Trucks* (PITs). These include tow motors, fork trucks, tractors, platform lift trucks, motorized hand trucks, and other specialized industrial trucks powered by electric motors or internal combustion engines.

- Fuel-powered industrial trucks are generally prohibited indoors. Consult with your local safety professional before using one.
- You must be trained and authorized to operate in-plant PITs.
- PIT operators are responsible for vehicle safety and must follow all safety requirements.
- Immediately report to your supervisor any PIT-related accident or near miss, including any that causes property damage. Your supervisor must investigate the accident and file a report on PS Form 1769/301.

A. Vehicle Regulations

- Each day, before using an in-plant PIT, inspect items such as the brakes, steering apparatus, warning light, and horn.
- Tag a defective PIT with PS Form 4707, remove it from service, and report all defects to your supervisor immediately.
- Make sure that every in-plant PIT is equipped with a horn and a flashing warning light that works.
- Never operate industrial lift trucks with the overhead guard or load backrest removed.

B. Driving Regulations

1. General

- **Never operate a PIT in a reckless manner.**

- Do not ride with any part of your body protruding from a PIT.
- Use only the aisles designated for truck traffic.
- Make sure there is adequate clearance before proceeding under any overhead obstruction.
- When turning corners, face the direction toward which you are moving and be careful of rear-end swing.

2. Hard hats

- Always use a hard hat when
 - You work above floor level or work from mechanical lifts and platforms.
 - You operate powered mechanical equipment.
 - Overhead hazards are present.
 - Local safety rules require you to wear a hard hat.

3. Speed

- Drive an in-plant PIT at 5 mph or less (about the speed of a fast walk).
- Approach intersecting aisles and towveyor crossings slowly and cautiously. Sound the horn to inform pedestrians of your approach.
- Keep a PIT at least three vehicle lengths behind other vehicles when traveling.

4. Backing Up

- Check to make sure there is a clear path to the rear before backing up.
- Do not back a PIT through a doorway unless your field of vision is clear.

5. Passengers

- Never exceed a PIT's seating capacity.
- Always provide securely attached seating for passengers; never allow a passenger to ride on an in-plant PIT without securely attached seating.

6. Industrial Lift Trucks

- Use industrial lift trucks only for lifting and hauling loads. Never use them for personal transportation.
- Do not use industrial lift trucks for raising personnel to elevated locations unless properly equipped and installed personnel platforms are used.
- Lift, lower, and carry loads with industrial lift trucks with the lifting mechanism vertical or tilted back - never tilted forward.
- Keep forks on a moving lift truck low (just high enough to clear floors and low enough to clear overhead obstructions). Under normal conditions, 3 inches above floor level is sufficient.
- When approaching or leaving a building where the ramp incline is greater than 10 degrees, turn the lift truck so that the load is on the upgrade side and cannot slip off the forks.

C. Work Practices

- Never tow more than three empty or loaded containers of rolling stock (platform trucks, hampers, or containers).
- Driverless tractor units are permitted to tow up to five containers, empty or loaded.
- Never obstruct aisles, passageways, fire-fighting equipment, electrical panels, exits, or towveyor lines with parked, in-plant PITs.
- Fully lower the load-engaging mechanism, with controls in neutral and the brakes set, when the driver has dismounted and is within 25 feet of vehicle and the vehicle is still in view.

- If the driver is more than 25 feet away from a vehicle that remains in view, or if a vehicle is not in the driver's view, consider the vehicle unattended.
- When a vehicle will be left unattended, lower the load-engaging mechanism, put all controls in neutral, shut off the power, set the brakes, and remove the ignition key.
- Inspect trailers and trucks that are entered by in-plant PITs or conveyors to ensure that the flooring appears able to handle the load and that the trailer is prevented from rolling by wheel chocks or positive-locking parking devices.
- Inspect dock plates to ensure that they are able to handle the load and are properly seated on the bed of the truck.
- Use the proper hooks and coupling devices for towing. Never use your hand to hold equipment being towed.
- Never use propane-powered equipment in a poorly ventilated space (such as a trailer).

D. Maintenance

- Repair PITs only if you are authorized to do so.
- Install only authorized modifications in powered industrial equipment.
- Disconnect the batteries of in-plant PITs before performing corrective maintenance on them.
- Follow appropriate lockout procedures (see Section XIX, Procedures to Control Hazardous Energy: Lockout).
- Never get under a lift truck unless it is properly held up by jack stands.
- Remove from service any PIT that is not in safe operating condition.
- Before placing a PIT in service, examine it. If the PIT has any defect that could affect safety, do not place it in service.

E. Special Operating Rules: 12-Foot Aisle Facilities

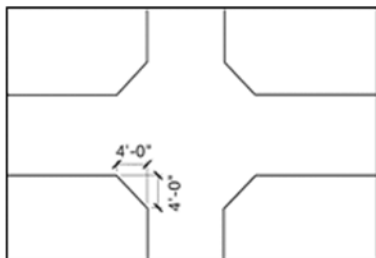
This section applies only to the Logistics and Distribution Centers (L&DCs) and Priority Mail Processing Centers (PMPCs) at the following locations:

Phoenix, Arizona	Northern New Jersey
Jacksonville, Florida	Bethpage, New York
Miami, Florida	Rochester, New York
Orlando, Florida	Philadelphia, Pennsylvania
Springfield, Massachusetts	Pittsburgh, Pennsylvania
Nashua, New Hampshire	

A maximum of seven general purpose mail containers (GPMCs) and/or Eastern Region mail containers (ERMCs) may be towed at any given time provided that the following criteria are met:

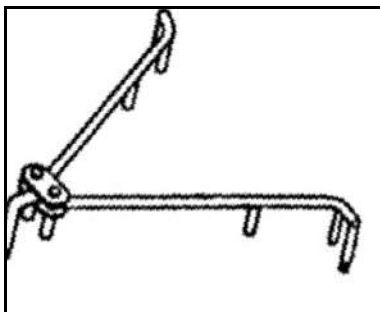
- Aisles are clearly marked.
- Aisles are at least 12 feet wide to allow two-way traffic to pass.
- Aisles less than 12 feet wide (1) allow one-way traffic only, and (2) do not allow container trains to pass each other.
- Ninety-degree intersections are chamfered at a minimum of 4 feet (see illustration).

Chamfered Intersection



- All L&DC and PMPC sites are required to purchase and install Electronic Speed Control (ESC) Programmers on all Powered Industrial Vehicles (PIVs) before allowing more than three mail containers to be towed within the facility. Adjust the ESC setting of each PIV to approximately 80 percent and not to exceed 5 mph.
- A new PIV must have an ESC device installed by the manufacturer according to the specifications in the paragraph above.
- PIV operators towing containers must observe the following:
 - When towing containers, use the brake levers to prevent jackknifing or loss of containers in the train. (See Handbook PO-502, *Container Methods*, for further information on proper use of mail equipment.)
 - When towing more than three GPMC and/or ERMCM containers at one time, place a folding tow bar (shown in the illustration below) between the third and fourth containers.
 - When towing a train of seven containers at one time, use two folding tow bars. Place one between the third and fourth containers; place the other between the fifth and sixth containers (in a 3-2-2 pattern).

Folding Tow Bar



SECTION XII

Portable Utility Safety Platforms

Use portable utility safety platforms only if you have been trained and authorized to do so.

- Before using equipment, perform a safety check. If the equipment is defective, tag using PS Form 4707, *Out of Order*, remove from service, and report defects to your supervisor.
- Post warning signs, visible from all sides, which say, “Work Above - Hard Hat Required.”
- Rope off or otherwise designate maintenance work zones before beginning work on a raised platform.
- Use a hard hat when you:
 - Work above floor level.
 - Work from ladders, mechanical lifts, and platforms.
 - Operate powered mechanical equipment.
 - Operate where overhead hazards are present.
- When using portable utility safety platforms, **always**:
 - Use only on level and hard surfaces.
 - Extend outriggers (if provided) before operating lifts.
 - Check clearance before raising and lowering.
 - Take every precaution to keep tools from falling off platforms.
 - Check to the right and left of the work platform before executing any slewing (twisting) motion.

- When using portable utility safety platforms, never:
 - Use ladders or other similar devices to gain additional reach.
 - Stand on the guardrails to reach the worksite.
 - Upset your balance by leaning over the rails.
 - Exceed the rated load of the platform specified by the manufacturer.
 - Back a portable utility safety platform through a doorway.
 - Rock the platform.

SECTION XIII

Elevators and Escalators

A. General

- Facilities (Headquarters) is responsible for (1) inspecting equipment for safety, and (2) issuing certificates of operation for elevators and escalators. Only authorized elevator inspectors may inspect and issue certificates of operation.
- Never operate elevator or escalator equipment without a current certificate of inspection.
- Report elevator and escalator malfunctions to your supervisor.

B. Elevators

- Never use an elevator during a fire or emergency evacuation.
- Never smoke in an elevator. (Smoking is not permitted in any Postal Service facility.)
- Be alert and watch your step when entering or exiting an elevator. Step away from closing doors.
- Each passenger elevator must have a load capacity sign posted that indicates the maximum number of persons permitted. Never exceed this limit.

C. Freight Elevators

Observe the general instructions for elevators in *B* above and the following for freight elevators:

- Do not ride in a freight elevator unless you have been authorized to do so.
- Use caution when loading freight elevators. Each freight elevator is required to have posted signs that indicate the maximum (1) load capacity in pounds, and (2) number of loaded containers permitted. Never exceed those ratings.

- Never use an in-plant PIT to load or unload a freight elevator if the weight, size, or shape of the equipment exceeds the capacity and design of the elevator.

D. Escalators

- Face forward and hold the handrail when riding an escalator.
- Be alert and watch your step when stepping on or off an escalator.

SECTION XIV

Hand Tools

- Use only hand tools supplied by the Postal Service.
- In your work area, use only knives supplied by your facility.
- If safe and appropriate tools are not available for your work, report this to your supervisor.
- Carry hand tools safely and properly.
- Store sharp-edged tools in a safe place.
- Always wear eye protection when using striking tools.
- Tools are designed for specific jobs; never use them for jobs they were not designed for. For example, never use (1) a wrench as a hammer, (2) a screwdriver as a chisel, or (3) a knife as a screwdriver.
- Always use tools that are in good condition. For example:
 - Never use tools with splintered, broken, rough, or loose handles.
 - Never use a defective wrench, such as an open-end or adjustable wrench with spread jaws or a pipe wrench with dull teeth.
 - Never use impact tools, such as chisels, drills, hammers, and wedges that have mushroomed heads.

SECTION XV

Power Tools

A. Work Practices

- Portable electric tools must use three-wire conductors and be grounded, unless the tools are double-insulated and approved by Underwriters Laboratories, Factory Mutual, or another recognized testing agency.
- Use appropriate testing devices to check power tools for shorts. Once a year, test each power tool for proper operation and grounding. Maintenance Management Order (MMO) 008-86, *Testing of Electrical Tools*, gives instructions for testing tools and requirements for recordkeeping.
- Remove from service immediately any portable tool not in proper working condition. Tag as defective using PS Form 4707.
- Never use personally owned power tools on the job.
- Wear personal protective equipment (PPE) for eyes and face.

B. Powder-Actuated Fastening Tools

1. Preparation

- Use only approved powder-actuated fastening tools.
- Remove from service immediately any tool not in proper working condition. Tag as defective using PS Form 4707. Report deficiencies to your supervisor immediately.
- Never use a defective tool until it has been properly repaired according to the manufacturer's instructions.
- Always inspect a tool before you use it to make sure that it is clean and in proper working condition, all moving parts are operating freely, and the barrel is free of obstructions.

- Every 3 months inspect tools according to testing methods recommended by the manufacturer.
- Never operate a powder-actuated tool unless you are authorized to do so by a Qualified Operator's Card.
- Always use the proper shield, fixture, adapter, or accessory suited for the application, as recommended or supplied by the manufacturer.
- Operators, assistants, and other personnel nearby must wear appropriate eye, face, and hearing protection when a powder-actuated tool is in use.
- Post a sign, at least 8 inches x 10 inches, using boldface type no less than 1 inch in height, in plain sight on all construction projects when powder-actuated tools are used. The sign should say, "Powder-Actuated Tool in Use."
- Keep powder loads of different levels and types in separate compartments or containers.

2. Operation

- Operate tools strictly in accordance with the manufacturer's instructions.
- Use only the fasteners and powder loads recommended by the manufacturer.
- Use the lowest velocity class of load that will properly set the fastener.
- Before fastening into material that is questionable, determine suitability by using a fastener as a center punch. If the fastener does not penetrate easily, is not blunted, and does not fracture the material, then make initial test fastenings in accordance with the tool manufacturer's recommendations.
- Never load a tool unless you are preparing to use it immediately.
- If work is interrupted after loading, unload the tool immediately.

- A powder-actuated tool must be equipped with a safety collar that must be depressed before the explosive can be fired.
- **Never point a powder-actuated fastening tool — loaded or empty — at anyone.**
- Keep your hands clear of the open barrel end. Hold the tool perpendicular to the work surface when fastening into any material (except for specific applications recommended by the manufacturer).
- If the tool misfires, hold it firmly against the work surface for 30 seconds and then follow the instructions in the manufacturer's handbook.

3. **Limitations**

- Never use tools in an explosive or flammable atmosphere.
- Never leave tools unattended where they could become available to unauthorized persons.
- Never drive fasteners into:
 - Any spalled (splintered) area.
 - Very hard or brittle material.
 - Easily penetrated or thin material or material of questionable resistance (unless backed by a material that will prevent the fastener from passing completely through to the other side).
 - Concrete (unless material thickness is at least 3 times the fastener-shank penetration depth).
- Except for specific applications recommended by the manufacturer, never drive fasteners:
 - Closer than 3 inches from the edge of steel.
 - Closer than 3 inches from the unsupported edge of masonry material.

SECTION XVI

Machine Work

A. Work Practices

1. Personal

- Never use compressed air to blow dust, dirt, or other debris from clothing or the body (see Section I-B-2 for restrictions on the use of compressed air).
- Always wear adequate eye protection, such as high-impact safety glasses with side protection, when operating shop machinery that could propel broken cutting tools, chips, or other materials.
- Always wear goggles or face shields for grinding and sanding to protect your face and eyes from the small particles that are dispersed.
- Wear hearing protection when it is appropriate.
- When you are within an arm's length of a machine, do not wear loose clothing, neckties, gloves, sweaters, rings, watches, bracelets, or anything that could become entangled in the machinery or present an electrical contact hazard.
- Always protect long hair that could become entangled in moving parts.
- Never leave machines in operation unattended.

2. Work Area

- Never leave tools on machines.
- Machines designed for a fixed location must be securely anchored to the floor to prevent their movement.
- Maintain floors around machines in nonslippery condition.
- Never attempt to wipe or clean work areas while machines are in motion.

3. Operating Machines

■ Always:

- Before starting a machine with rotating chucks, check first to make sure that keys and drifts have been removed and the work is securely clamped.
- Follow up-to-date maintenance policies and procedures.
- Guard drives, pinch points, and points-of-operation on machine-shop equipment. Make sure that guards are securely in place while the machine is in motion. A safety officer must approve any exception to point-of-operation guarding.

■ Never:

- Use compressed air to clean mail-processing machinery or parts; use a vacuum cleaner (see Section I-B-2 for restrictions on the use of compressed air).
- Manually gauge work while a machine is running.
- Brake a machine by hand.
- Remove chips from a machine while it is in motion.
- Attempt to remove or install nuts on machine arbors or threaded work by using the machine's power.

B. Grinders

- Grinding wheels or other abrasive-wheel machines must meet the grinder's specifications and must not be notched or otherwise altered.
- Never use grinders or other abrasive wheel machines that lack appropriate guards.
- Remove altered or damaged grinding wheels from service; give them to your supervisor.
- Ring test a new grinding wheel before installing it.
- Never grind on the side of a grinding wheel.

- Grind soft metals such as aluminum only on wheels designed for those metals.
- Never adjust a guard while a wheel is in motion.
- Make sure that guards cover the sides, spindle-end, nut, and flange projections of a grinding wheel.
- To prevent work from being jammed between the wheel and the rest, use work rests to support the work; adjust them to no more than 1/8 inch from the wheel.
- Provide tongue guards at the opening of an abrasive wheel where the operator stands. Adjust tongue guards to not more than 1/4 inch from the wheel.

C. Circular Table Saws

- Never use circular table saws that lack appropriate guards.
- Saws must be equipped with the following:
 - A guard that automatically adjusts itself to the thickness of the material being cut.
 - A spreader that prevents material from squeezing the saw blade or from being thrown back on the operator.
 - Anti-kickback fingers for hand-fed, circular rip-saws.
- To avoid being struck by kickbacks, use a push stick and stand to one side of a circular table saw.

D. Radial Saws

- Never use radial saws that lack appropriate guards.
- Always wear eye protection when using radial saws. (You may also need hearing protection.)
- A radial saw must be installed with the front end slightly higher than the rear so that the saw will return gently to a standing position when released by the operator.
- A radial saw must not extend beyond the edge of its mounting platform.

- Radial saws must be set up as follows:
 - Equip with an upper hood that encloses the upper portion of the blade, including the end of the saw arbor.
 - Equip the side of the lower portion of the saw blade with a guard that automatically adjusts to the thickness of the material being cut.
 - Equip a saw used for ripping with anti-kickback fingers to prevent the material being cut from striking the operator.
 - For repetitive operations, provide an adjustable stop to keep the saw blade from traveling beyond the point necessary to complete the cut.

E. Biohazard Detection System

- Safety is a primary concern during operation of the Biohazard Detection System (BDS) and when performing maintenance activities on BDS equipment. BDS consumables are not considered hazardous, but they must be handled in accordance with MSDS guidelines and local policies and procedures.
- The BDS has been designed to operate safely, but chemical and electrical hazards are associated with handling some of its components. To minimize the dangers of working with BDS equipment, adhere to the guidelines and procedures in this section.
- Pay close attention to warning and caution notices, as follows:
 - **WARNING!** — potential personnel hazard that could result in injury or death.
 - **CAUTION!** — potential equipment damage.
- Warning and caution notices tell you about potential hazards or damage, explain what you must do to avoid the hazard or damage, and describe what will happen to you or the equipment if you don't take the notices seriously.

- Before doing any maintenance on equipment that can be electrically energized, you must perform a lockout procedure to control energy (such as electrical or hydraulic) during maintenance. Refer to your local Postal Service lockout procedures to properly lock out BDS equipment.
- **WARNING!** The materials that you will handle may contain chemicals or debris that could cause irritation to eyes and skin. Wear protective gloves and goggles with side-eye covers, per Postal Service requirements, while handling hazardous materials. If you fail to comply, you could receive serious skin and/or eye irritation. If eye or skin contact occurs, flush with water, preferably for a minimum of 15 minutes, and immediately report the incident to the supervisor and the site medical organization. BDS components are not inherently hazardous. However, some of the materials (buffers, other chemical testing substances, etc.) used in operation of the system are potentially hazardous if precautions are not taken during operation and maintenance. While cleaning parts of the BDS cabinet, or removing used sample cartridges or waste materials, small amounts of waste fluids or buffer fluids may get on your skin. Be sure to keep your hands away from your eyes, nose, and mouth. Thoroughly wash your hands immediately if contact with any chemical substance occurs and after any maintenance. If fluids spill on your clothing, change into clean clothing and wash the contaminated clothing before wearing it again. Observe the specific warnings in the maintenance procedures found in policies and procedures documentation.

- The Postal Service Integrated Emergency Management Plan (IEMP) is activated if a BDS mail sample indicates a presumptive positive test result (anthrax is present), an emergency alarm (red light flashing and horn sounding) will immediately be activated automatically and the mail processing equipment (MPE) will stop. MPE operators must notify their supervisor, who notifies the tour manager of the district office to initiate the facility IEMP. The BDS also communicates this presumptive positive alert through electronic communications (e-mail, cell phone) to designated plant, district, area, and HQ personnel as identified in the contact list.

SECTION XVII

Welding

Welding performed improperly or with unsafe equipment can cause a fire and serious injuries. As a maintenance worker, you are responsible for observing commonly accepted safe practices in welding operations (see Handbook MS-56, *Fire Prevention and Control*, for more information). When in doubt, contact your supervisor for additional safety precautions.

A. Authorization

1. Reporting Hot Work

- Hot work includes:
 - Welding, cutting, burning, soldering, chipping, and grinding.
 - Using portable equipment powered by internal combustion engines in hazardous areas subject to ignition.
- Prior authorization is not required for work performed in approved work areas, such as maintenance shops and welding rooms.
- In other work areas, any hot work (involving sparks, flames, or heat) done on the premises must be reported to your supervisor daily.

2. Inspection

- A designated management representative (usually a maintenance supervisor) is required to inspect your work area before granting authorization for hot work.
- Someone with relevant expertise may be designated (by local directive) to be an authorizing agent in the absence of a maintenance supervisor.
- Whoever authorizes the hot work must indicate the precautions to be followed in a written, hot-work permit.

- The authorizing agent must send a copy of the hot-work permit to the safety officer.

3. Resolving Deficiencies

The authorizing agent reviews safe work preparations, works-in-progress, and repairs or modifications completed on Postal Service premises. This agent must be informed if work-in-progress or completed work has safety deficiencies. If preparations are incomplete or inadequate, deficiencies must be resolved before work can begin or continue.

B. Training

- Everyone who performs welding or cutting must be trained how to
 - Operate equipment safely.
 - Perform tasks properly.
 - Use fire-extinguishing equipment and fire alarms.

C. Work Practices

1. General

- Make sure your clothing is free of grease and oil while you are welding or cutting.
- When outside contractors perform work on Postal Service premises, comply with all hot-work safety procedures to protect yourself, other employees, and equipment.

2. Work Area

- Fire protection and fire-extinguishing equipment must be readily available and located properly at the worksite before welding, cutting, or brazing activities can be performed.
- Adequate ventilation must be provided when welding is performed in small or poorly ventilated areas.
- Welding in confined areas is prohibited.
- **Never burn or weld while sprinklers are out of order, unless other adequate precautions are taken.**

- If welding anywhere other than in designated welding rooms, these precautions must be taken:
 - Protect combustibles with flameproof covers or with metal or fire-resistant guards or curtains.
 - To prevent sparks from passing to adjacent areas, cover tightly any openings or cracks in walls, floors, and ducts within 35 feet of a welding site.
 - Sweep or wet down wood floors or cover with a protective shield.
 - Protect conveyor systems that might carry sparks to distant combustibles.
 - Provide fire-resistant shields or guards to prevent ignition near a wall, partition, ceiling, or roof made of combustible materials.
 - Never cut or weld pipes or other metal in contact with a combustible wall, partition, ceiling, or roof if the work is close enough to cause ignition by conduction.
 - Combustibles within a radius of at least 50 feet from the job site must be removed, covered with flameproof covers or guards, or made safe by other means.

3. Operating Welding Equipment

- Use only approved apparatus such as torches, regulators, or pressure-reducing valves, acetylene generators, and manifolds.
- Always equip a regulator with a flashback arrestor.
- Before operating a portable electric welding unit, make sure that the frame ground wires are connected to ground.
- When changing electrodes, avoid contact with wet surfaces, ground wires, and metal objects.
- When a job is completed, all materials must be cooled or plainly marked “Hot.”
- Never use combustible materials to support the object being welded.

- Never weld on (1) metal; (2) a partition, wall, ceiling, or roof with a combustible covering; or (3) a wall or partition made of combustible sandwich-type panels.
- Never burn or weld in the presence of flammable vapors, liquids, or ignitable dusts.
- Never burn or weld on lead-containing materials.
- Never weld, cut, braze, solder, or otherwise heat an empty container (such as a gas tank or oil drum) that has held flammable or explosive substances unless all substances and their latent fumes have been completely removed by decontamination.

D. Protective Equipment

Your supervisor or local safety personnel can help you determine what protective equipment to use for any operation.

1. Personal Protective Equipment

- If you are exposed to hazards from welding, cutting, or brazing operations, you must be protected with PPE.
- Wear adequate eye protection when within the protective curtain of welding operations.
- Wear goggles or helmets with the proper shade-numbered colored lenses when:
 - Welding or cutting with gas.
 - Performing electrical arc welding.
- Wear adequate eye protection when chipping slag from the weld.
- Protect your whole body from drippings and slag, especially when welding overhead.
- Use welding blankets, covers, and curtains when hazardous exposure warrants their use.

2. Welding Screens

- To protect everyone in a work area, welding screens must be in position when welding.
- Use metal or flame-resistant screens to shield operations that might cause flying sparks or molten

metals to pass through windows, cracks, or holes in walls or floors.

- When you are welding in an entirely screened space, arrange the screens so that they do not restrict ventilation.
- Mount screens 2 feet above the floor. If work is performed at a lower level, extend screens toward the floor to protect workers from welding glare.

E. Fire Watchers

- A *fire watcher* is an employee trained to spot fires quickly and to take appropriate action. The supervisor in charge of a welding job (inspector, maintenance supervisor, or other authorizing agent) must require the presence of one or more fire watchers when granting authorization for cutting and welding tasks.
- Firewatchers must:
 - Be trained in the use of fire-extinguishing equipment.
 - Be familiar with the facility and the procedures for sounding an alarm in case of fire.
 - Maintain a fire watch for at least a half hour after completion of welding or cutting operations to detect and extinguish possible smoldering fires.
 - Watch for fires in exposed areas.
 - Try to extinguish incipient-stage fires.
 - Sound the alarm immediately.

F. Compressed Gas Cylinders

1. Use

- If you cannot open a valve by hand, notify the gas cylinder supplier.
- If a special wrench is required for using a cylinder, leave the wrench in position on the valve stem so that the gas can be turned off quickly in an emergency.
- **Never use a hammer or cheater bar to open or close a cylinder valve.**

- Any cylinder with a water-weight capacity of more than 30 pounds must be equipped with a means of connecting a valve-protection cap or with a collar or recess to protect the valve.
- Keep cylinders far enough from actual welding or cutting operations so that sparks, hot slag, or flames cannot reach them.
- Never use the valve-protection cap on a compressed cylinder to lift the cylinder from one vertical position to another.
- Never generate, pipe, or use acetylene at a pressure greater than 15 psi gauge pressure or 30 psi absolute pressure except in approved cylinder manifolds.
- Never use oil or grease on cylinders or regulator connections.
- Close all cylinder valves when work is finished and when cylinders are empty.
- Keep cylinder valves closed when cylinder is not in use.
- Make sure the hose is bled when the torch is not in use.

2. Storage

- Always mark cylinders legibly with the chemical or trade name of the gas.
- Report unmarked cylinders to your supervisor immediately.
- Store cylinders in their assigned (and clearly identified) places, away from elevators, stairs, and walkways.
- Store cylinders in a well-protected, well-ventilated, dry location at least 20 feet from highly combustible materials.
- Keep cylinders away from sources of heat such as steam pipes and radiators.

- Store cylinders upright, capped, and secured to walls by chains or other sturdy nonflammable materials.
- Keep stored fuel gas cylinders at least 20 feet away from oxygen cylinders; separate them with an effective firewall 5 feet or higher.

3. Disposal

- Mark empty cylinders, segregate them from full cylinders, and return them promptly to the supplier with protection caps in place and valves closed.
- Transport cylinders securely lashed upright with valve covers in place.

SECTION XVIII

Electrical Maintenance

- Never work on electrical circuits or electrical devices operating at or above 600 volts AC (alternating current).
- When installing and modifying electrical circuits and devices, comply with the National Electrical Code® (NFPA 70), published by the National Fire Protection Association.
- When attaching grounding lines to equipment, connect the ground line first. When removing connections, remove the ground line last.
- **Never disconnect or break the ground wires on equipment or portable tools.**
- When it is necessary to reconnect or replace ground wires, a person qualified in electrical work must do this before equipment or tools can be put back into operation.
- Always use a fuse puller when replacing fuses.
- Never replace fuses while circuits are energized.
- Never use extension cords in place of permanent wiring for fixed equipment.
- Before using an extension cord, check for breaks in insulation, missing ground prongs, and faulty plugs or sockets. Report defects to your supervisor.
- Test instrument connections, leads, and clips to make sure they are in good condition.
- If energized and exposed parts are accessible, never leave equipment unattended on a test bench.
- Remove rings, watches, bracelets, necklaces, and other jewelry while working on electrical circuits.

SECTION XIX

Procedures to Control Hazardous Energy: Lockout

Effective procedures to control hazardous energy protect you during servicing and maintenance of machines or equipment when unexpected energization, start-up, or release of stored energy could cause injury.

The procedures in this section are cited in OSHA Standard 1910.147, *The Control of Hazardous Energy (Lockout/Tagout)*; they must be followed without exception.

Working on or near exposed de-energized electrical conductors and parts of electrical equipment can be hazardous. Guard against:

- Contacting live electrical circuits or parts.
 - Being caught in, crushed by, struck by, or thrown from equipment.
- A. Authorization and Responsibility
- When locking out equipment, follow the procedures in your site's lockout program.
 - Perform lockout procedures only if you are trained and authorized to do so. Your name, title, and the lockout procedures you are authorized to perform must be on your site's list of personnel authorized to perform lockout.
 - Review up-to-date energy control procedures for the machine or equipment to be locked out. These procedures should be near the machine. If not, ask your supervisor for the current version.
 - Additional lockout devices and locks are issued as applicable.

B. Rules

- The Postal Service must provide locks, chains, wedges, and other hardware that meets OSHA requirements.
- If you are affected by lockout or are authorized to perform lockout, your site's lockout procedures must always be available to you.
- If there is any possibility that a person could be injured, machines and equipment must be locked out to protect against accidental operation.
- Lockout also applies when anyone is working on or near exposed de-energized electrical circuits or parts.
- Never attempt to operate any switch, valve, or other energy isolating device that is locked out.
- Locks must be individually identified and keyed. Carry the lock and lockout devices issued to you at all times.
- A lockout device must
 - Be clearly identified as a device used for controlling energy and never used for other purposes.
 - Identify the employee authorized to use the device.
 - Be applied so that it holds the energy-isolating device (disconnect switch) in a *neutral* or *off* position.
 - Be removed only by the person who applied the device.
- If more than one person works on the same equipment, each must attach his or her own lock.
- Before starting work, operate the pushbutton or normal operating controls to verify that the appropriate equipment has been de-energized and to make certain it will not operate.
- After verification, return operating controls to the *neutral* or *off* position.

- If a lockout procedure will extend into the following shift, remove your lock. The employee on the next shift must immediately place his or her own personal lock on the equipment.

C. Lockout Precautions

One of the biggest safety challenges is overcoming the assumption that a job is too small for lockout. Bypassing a lockout procedure because it appears to be an unnecessary nuisance can cost lives.

- **Always lock out machines and equipment when the job calls for it. You must protect yourself and your fellow workers from unnecessary risks.**
- Pulling a fuse is no substitute for locking out — there is no guarantee that a circuit is dead or that someone cannot reactivate the circuit by replacing the fuse.
- Pushbuttons, selector switches, and other circuit control devices are *not* energy-isolating devices.
- Locking out one source of power to machines or equipment may not be enough because many use a combination of energy sources: electrical and pneumatic or steam and hydraulic. Be aware of auxiliary energy sources and make sure that each source has *zero-energy-state* potential.
- Bleed air and hydraulic lines and lock out main valves using the appropriate lockout device.
- Block or dissipate all stored or residual energy in rams, flywheels, springs, or pneumatic or hydraulic systems.
- Discharge capacitors.
- If plugs and cords on portable units will be out of your immediate control, disconnect them and place in an appropriate plug caddy.
- Never assume that pumps, blowers, fans, and compressors that operate intermittently are harmless when dormant or not functioning. Lock them out!

SECTION XX

Boilers and Pressure Vessels

Facilities (Headquarters) is responsible for (1) making sure that equipment is inspected for safety, and (2) issuing certificates of operation for boilers and pressure vessels.

- Boiler firing controls are designed to be fail-safe. Never manipulate controls to circumvent the fail-safe feature; this can cause serious boiler malfunction and injury.
- Only authorized boiler inspectors may perform the following tasks:
 - Inspect and issue certificates of operation.
 - Approve boiler repairs that require welding (must be approved before the work is done).
- Only an authorized repair agency may perform repairs involving welding of boiler pressure components or pressure vessels.
- Unless you are authorized to operate or repair a boiler or pressure vessel, do not attempt to manipulate the controls to fire a boiler.
- Do not operate boiler or pressure-vessel equipment unless a current certificate of inspection is displayed.
- Report all boiler or pressure vessel malfunctions to your supervisor.
- Take precautions to prevent being scalded by heated water from a boiler or hot-water-heating equipment.
- **Hot water is an energy source; proper hazardous energy control procedures must be put in place when working with boilers and pressure vessels.**

SECTION XXI

Confined Space Entry

Confined spaces are divided into two categories: (1) permit required, and (2) non-permit required. Safety personnel determine the appropriate category.

A. Permit-Required Confined Space

A permit-required confined space contains (or has the potential to contain) a hazard capable of causing death or serious injury.

- The space must be identified by a sign that says, "Danger, Permit-Required Confined Space - Do Not Enter."
- Work in this space must be performed only by competent and qualified contractors.
- Postal Service employees are not permitted to enter a permit-required confined space.

B. Non-Permit-Required Confined Space

A non-permit-required confined space does not contain (or lacks the potential to contain) a hazard capable of causing death or serious physical harm.

- If you enter a non-permit-required confined space, you must be aware of potential hazards.
- Notify your supervisor when (1) you are required to enter a non-permit-required confined space, and (2) your work in the space is completed.
- **Check your facility's inventory and evaluation of confined spaces.**

- Never perform a task that may create an atmospheric or other hazard in a confined space. Some examples follow:
 - Welding, cutting, soldering, or other hot work.
 - Cleaning with organic solvents, corrosives, or other hazardous materials.
 - Painting or applying other surface coatings.
 - Using hazardous or dust-creating powered equipment (other than small hand tools).
- **Evacuate any space that may have hazards. Report the hazards to your supervisor immediately.**

SECTION XXII

Battery Recharging Operations

Battery technology has improved dramatically in the past few decades. Many hazards associated with battery maintenance have been eliminated by the development of maintenance-free batteries and sealed battery systems. The use of automatic and trickle chargers (smart chargers) has reduced the number of catastrophic battery explosions caused by overcharging.

A. Hydrogen, Sulfur Dioxide, and Sulfuric Acid

The use of efficient material-handling equipment has created a demand for more batteries and places to recharge them. A potential hazard associated with battery recharging - the creation of hydrogen and sulfur dioxide gases - has been mitigated through proper design, operation, and maintenance of mechanical ventilation systems. However, sulfuric acid, a corrosive agent present in electrolyte, also presents a recharging hazard.

- Only authorized personnel are permitted to enter battery rooms and engage in battery room operations.
- Keep battery room doors closed while charging batteries.
- Use appropriate work practices and PPE.
- To properly safeguard against battery charging accidents and injuries, you must fully understand each battery manufacturer's specifications.

B. Work Practices

1. Preparation

- Never smoke, weld, or use an open flame in a battery room if exposure to hydrogen gas from a recharging operation is possible.
- Do not use tools or material-handling equipment that might cause sparks or be a source of ignition.

- When recharging a battery in a motor vehicle or motorized equipment:
 - Wait until the driver has stepped off the vehicle and has cleared the area of hoisting equipment.
 - Turn the ignition switch off before loosening the battery case holder.
- Disconnect cables and make sure the charger is shut off and charging lines are disconnected before removing a battery.
- Use proper equipment and lifting methods when moving batteries.
- Keep your feet clear of a battery when lowering or raising it with a hoist.
- Never place tools or other metal objects on top of batteries.

2. Charging

- To properly safeguard against battery charging accidents and injuries, you must fully understand the battery manufacturer's specifications.
- Use the correct size charger for each battery.
- Wear appropriate PPE.
- **When preparing electrolyte, never add the water to the acid. Always add the acid to the water, and add it *slowly*.**
- If the water level is below the plates, add just enough water to cover the plates before charging. After charging, fill the cells to the proper level.
- Do not remove cell caps if the manufacturer's specifications do not call for it.
- Make sure that all cell vents are clear before connecting the charger.
- Observe and match polarity correctly: positive-to-positive and negative-to-negative.
- Never charge a battery beyond the manufacturer's specifications.

- Maintenance-free batteries may be charged outside the battery room. Follow the manufacturer's charging recommendations.

3. Storage

- Store batteries only on the wooden platforms and shelves provided.

4. Disposal

- Dispose of hazardous materials according to your facility's Pollution Prevention Plan.
- If a spill beyond the incidental stage occurs, invoke your facility's Spill Prevention Control and Countermeasure (SPCC) plan or emergency action plan. (An incidental-stage spill is limited in quantity, exposure potential, and toxicity.)

C. Personal Protective Equipment

- Maintain PPE in accordance with the manufacturer's specifications.
- Never use defective or faulty PPE. Report such equipment to your supervisor immediately.
- Use appropriate PPE to protect your skin and eyes from splashes of corrosive materials when refilling batteries with electrolyte. At a minimum, appropriate PPE includes:
 - Chemical-resistant gloves, aprons, goggles, and face shields.
 - Hard hat or bump hat, mandatory when working in or maneuvering powered industrial equipment in and out of battery rooms.
 - Proper footwear with heels and soles of rubber or neoprene.

D. First Aid

Minimum safety and health standards for facilities with battery rooms or battery charging operations are described below.

- Always have baking soda on hand. Mix baking soda with water to clean electrolyte spills or splashes that may come in contact with the skin or battery room equipment.
- Check drenching and eye-flushing equipment at the start of each tour to make sure it is in working order and accessible.
- In emergencies involving acid or electrolyte spills or splashes on the body or eyes, do the following:
 - Have someone call the health unit or first aid squad immediately.
 - Follow procedures outlined in Section IV, Occupational First Aid.
 - Use deluge showers and eye wash equipment, as follows: Using large amounts of cold water, immediately drench for at least 15 minutes every part of the body that has been splashed with acid or electrolyte.
 - For eye injuries, if possible, find help to hold eyelids open.

E. Housekeeping

- Observe good housekeeping practices in battery-room operation areas.
- Always maintain sufficient ventilation. Never block vents or turn fans off. If the ventilation system malfunctions, stop charging immediately.
- At the start of each tour, check fire extinguishers. They must always be fully charged, easily accessible, and at their designated locations.
- At the start of each tour, check fire doors. Make sure they close all the way with little manual effort.

- **Never block or chock fire doors open. This decreases the effectiveness of the ventilation system designed to ensure a certain number of air changes per hour.**
- If not needed for battery-room operations, never store flammable liquids or other hazardous materials in battery rooms.
- Wash clothing often to prevent contamination from lead or acid. Wash hands and face after each work tour.
- Wash hands and face before eating or smoking.
- Never bring food or beverages into the battery room. Never eat or drink in the battery room.

SECTION XXIII

Environmental Protection

As a maintenance employee, you play a key role in Postal Service efforts to protect the environment. Be aware of your work activities' potential for causing pollution.

If you pollute (willfully or unknowingly), you and your supervisor can be held personally liable and incur civil penalties, criminal penalties, or both. Work practices that may affect the environment are regulated by the Occupational Safety and Health Administration (OSHA) and the Environmental Protection Agency (EPA). In addition, the area managers of Environmental Compliance and Environmental Compliance Specialists may issue specific requirements for your facility.

The requirements of each law and their applicability to specific job tasks are too numerous to be listed in this handbook. For a global overview of issues and concerns, see A through F. At a minimum, you must:

- Comply with federal, state, and local environmental protection laws, regulations, procedures, and practices.
 - Participate in pollution prevention by recycling, reducing waste, and reusing acceptable materials.
 - Comply with federal Clean Air Act requirements by carpooling, using public transportation, or using other multiple-occupant commuting options as applicable.
- A. Pollution Prevention, Conservation, Hazardous Materials, and Recycling
- To prevent air pollution, cover open containers of chemicals when you are finished using them.
 - Contact your supervisor for guidance before you pour chemicals down storm or sanitary drains.

- Do not respond to spill incidents or clean up spills from mailed articles if you have not been trained to do so. Contact your supervisor for spill cleanup procedures.
- Turn off lights in spaces where no one is working.
- Participate in your facility's water conservation efforts.
- Follow your facility's plan to manage lubricants.
- Store flammable items in approved containers.
- Participate in your facility's solid waste management efforts by segregating waste materials and by recycling.
- Keep hazardous waste (including waste produced during painting and cleaning operations) separate from other solid waste.

B. Regulated Materials

1. Asbestos-Containing Building Materials

Postal Service employees may work with materials that contain asbestos *only if an official Negative Exposure Assessment (NEA) has been developed*. NEAs have been developed for materials such as asphalt plank, vinyl asbestos tile, asbestos flooring, asbestos in lookout galleries, and fire-proof containers and safes.

- Obtain the maintenance management orders (MMOs) issued to prevent you from being exposed to low levels of asbestos fibers and follow the procedures outlined in them.
- Know the location of every asbestos-containing building material (ACBM) in your facility. ACBM locations are found in comprehensive building surveys that should be available to you.
- For additional information, contact, in this order: (1) your supervisor, (2) the Facility Asbestos Coordinator, and (3) the Environmental Compliance Specialist.

2. Field Maintenance Operations: Safes

Fireproof containers (such as safes) may include some asbestos-containing materials that make them fireproof.

If you are unable to open a safe and drilling is necessary, contact your supervisor for specific procedures to safeguard against asbestos exposure.

3. Custodial Floor Care

Asphalt planking and vinyl asbestos tile (VAT) are common Postal Service floor coverings. The asbestos fibers in them can be released during floor care only if the matrix of the material is disturbed. When caring for floors made of asphalt planking and VAT, you must comply with the following procedures:

- Keep three to four coats of wax on these materials to contain the fibers and prevent contact with the matrix.
- When stripping these floors, use wet methods, the least abrasive pad, and buffer speeds not greater than 250—300 revolutions per minute.
- High-speed burnishing is prohibited.
- **Use extreme caution not to burn or disturb the matrix of asphalt planking or VAT.**

4. Lead-Containing Building Materials

- The Postal Service defines lead-containing building materials as materials in which lead:
 - Is present (for example, in paint and in water);
 - Could be inhaled or ingested; and
 - Could accumulate in the body to form an unacceptable burden.
- Follow procedures in current MMOs that tell you how to safeguard against lead hazards. (For example, MMO-031-94, *Lead Exposure in Construction Lead-based Paint.*)
- Contact your supervisor for more information.

5. Fluorescent Tubes and Mercury

Exposure to mercury is a health hazard, and fluorescent tubes may contain small amounts of mercury. To avoid exposure to airborne mercury, contact your supervisor or facility recycling coordinator for guidance.

Improper disposal of fluorescent tubes can lead to concentrations of mercury in the waste stream that exceed the amounts allowed by federal, state, or local regulations. Regulations for disposing of fluorescent tubes vary by locality and the amount of mercury in the tube.

- Make sure to observe federal, state, and local regulations for disposing of fluorescent tubes.
- Postal Service policy is to recycle fluorescent tubes whenever possible.
- **Never crush fluorescent tubes.**

6. Building Materials Containing Polychlorinated Biphenyls

Building materials containing polychlorinated biphenyls (PCBs) are defined by the Postal Service as materials in which PCBs can be found - mainly electrical products such as ballasts, transformers, and switch gears.

PCBs are carcinogens. Postal Service employees can be exposed by inhalation of airborne particulates, ingestion, and skin contact. Building materials in your facility that contain PCBs must be identified and labeled properly.

- Follow procedures outlined in current MMOs on PCBs.
- Building materials manufactured after 1978 that do not contain PCBs are stamped "No PCB." If not, assume that the material contains PCBs.
- Contact your supervisor for additional information.

7. Equipment Containing Chlorofluorocarbons

The Postal Service has issued several MMOs to protect you while working on equipment containing chlorofluorocarbons (CFCs).

- Follow procedures outlined in current MMOs on CFCs.

- You must be certified to work on equipment containing CFCs.
- Contact your supervisor for additional information.

C. Bloodborne Pathogens

If you routinely handle or are asked to clean up spills containing human blood, human blood components, and products made from human blood or regulated waste, you are considered to be “occupationally exposed” and must be included in a facility exposure plan.

- Contact your supervisor to find out if you are or should be included in a facility exposure plan.
- If you are included, you must be trained and authorized in all aspects of the plan for protection from exposure to bloodborne pathogens.

D. Material Safety Data Sheets and Hazard Communication

- Follow the manufacturer’s specifications contained in material safety data sheets (MSDSs) and the hazard communication program established at your facility.
- Use only products and materials authorized and approved by the Postal Service.
- Make every effort to eliminate the following 17 chemicals from Postal Service use:
 - 111 trichloroethane (methyl chloroform)
 - Benzene
 - Cadmium and compounds
 - Carbon tetrachloride
 - Chloroform
 - Chromium and compounds
 - Cyanide compounds (including hydrogen cyanide)
 - Lead and compounds
 - Mercury and compounds
 - Methyl ethyl ketone
 - Methyl isobutyl ketone (trichloromethane)
 - Methylene chloride
 - Nickel and compounds

Tetrachloroethylene
Toulene
Trichloroethylene
Xylenes

- A few products and materials may contain chemicals that have no available substitute. In these cases, purchase only the minimum quantity needed to perform the task. Never stock substantial quantities of these chemicals.

E. Animals and Insects

If you work outdoors, carry dog repellent and follow these rules regarding animals and insects.

- Take extra care if you see dogs or other animals loose on your assigned route.
- Report animal interference to your supervisor, who can notify the customer and request that the animal be restrained.
- Observe these guidelines for dealing with dogs:
 - Never pet or antagonize a dog.
 - If a dog rushes toward you or takes you by surprise, do not run. Retreat very slowly, facing the dog. Be careful not to stumble over objects as you retreat.
- Observe these guidelines for using dog repellent:
 - Use only when an attack is imminent.
 - Spray into the dog's eyes.
 - Do not allow the repellent to come in contact with human skin or eyes.
 - Keep dog repellent clipped to yourself or on your satchel — never inside a vehicle — because summer heat may cause the container to rupture.
 - Remember: repellent may not work on all dogs.
- If outbreaks of rabies have been officially reported in the community where you work, observe dogs, cats, and wild animals carefully. Curtail an operation if you feel threatened.

- If you are bitten by an animal, 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, inform your supervisor and, if available, your medical and health unit. Use caution around trash compactors and trash receptacles to avoid stings from insects hidden inside.
- **You are not required to continue your fieldwork if threatened by an animal.**

F. Painting Operations

If your facility uses fixed paint spray booths to paint items such as mailboxes, your supervisor will give you the proper PPE for your job tasks. Observe the following procedures:

- Turn on the ventilation system whenever anyone is painting.
- Use only the painting equipment approved for the job you are doing.
- Never place yourself (your breathing zone) between the object you are painting and the exhaust vents. This practice defeats the purpose of the ventilation system.
- Replace paint booth filters according to preventive maintenance schedules or whenever they become ineffective. Dispose of the filters according to local solid or hazardous waste regulations.
- Contact your supervisor for more information.

SECTION XXIV

Maintenance Work Areas

You are responsible for keeping your work area clean and orderly. A floor-cleaning operation is considered a “maintenance work area” because it presents a slip, trip, or fall hazard. Never enter a maintenance shop or maintenance work area (including catwalks and equipment rooms) unless you are authorized to do so.

A. Identification of Work Areas

- In areas where you or other employees are conducting maintenance, service, and repair operations, post proper instructional signs and barriers to warn of potential hazards and to prevent unauthorized persons from entering the area.

B. Skylights and Roof Openings

Each year the National Institute for Occupational Safety and Health (NIOSH) reports worker fatalities caused by falls.

- Know the location of every skylight and roof opening in your work area.
- Never step, stand, or sit on a skylight; it might not support your weight.
- Before work begins make sure that every skylight and roof opening is guarded appropriately.
- Use fall-protection equipment as required. Use PPE for protection from falls only if you have been properly trained and authorized to do so.

C. Surfaces for Walking and Working

- Keep surfaces for walking and working clean and orderly.
- Keep the work area clean while conducting maintenance, service, and repair operations.
- Report any damage to floor surfaces, stairways, handrails, and floor guards to your supervisor.

SECTION XXV

Solid Waste Management Containers

Solid waste management containers such as compactors and balers pose specific safety hazards. You must be authorized to use this kind of equipment.

- Always follow the manufacturer's safety specifications.
- If you need to retrieve an object from a compactor, first make sure that proper lockout procedures are carried out by an authorized employee.
- Never attempt to circumvent safety interlocks.
- Never repair a compactor unless you are trained and authorized to do so.
- Never operate a compactor when someone is near or around the point of operation.
- Never use a foreign object to free a jam.
- Never insert objects while a compactor is in operation.