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DEPARTMENT OF THE TREASURY
BUREAU OF ENGRAVING AND PRINTING
WASHINGTON, D.C. 20228

November 7, 2017

FOIA Request No. 2017-09-080

This letter responds to your Freedom of Information Act (FOIA) request under 5 U.S.C. § 552 to obtain a copy of the BEP Safety and Occupational Health Manual.

The Bureau of Engraving and Printing (BEP) Office of Environment, Health, and Safety found records responsive to your request. Enclosed are the records responsive to your request. No fees will be charged for processing your request.

If you have any questions concerning your request, please contact me at (202) 874-2500.

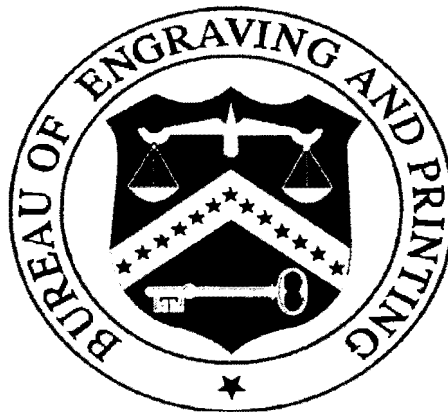
Sincerely,

Leslie J. Rivera-Pagán
Disclosure Officer

Enclosure(s): 304 pages

**Occupant Emergency Plan (OEP)
And
Fire Prevention Plan (FPP)**

**Integrated Contingency Plan (ICP)
Volume I**



US Department of the Treasury

**Bureau of Engraving and Printing
Western Currency Facility
Fort Worth, Texas**

**Document # 75W-04.0-01
Initial Release
Effective September 2016**

This document serves as the Bureau of Engraving and Printing (BEP) Western Currency Facility (WCF) Occupant Emergency Plan (OEP) and Fire Prevention Plan (BEP) in accordance with OSHA Standards. The document applies to all building occupants.

Charlene Williams

Associate Director, Manufacturing

_____**<SIGNED>**_____

All emergencies dial

“0” or 3700

On any internal phone, or

(817) 847-3700

From an external or cell phone.

In the event of ice and snow conditions, all employees should call the WCF Work Information Hotline for information on closures or late arrival guidance:

WCF Work Information Hotline (817) 847-3888

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i Office of Primary Responsibility

The Bureau of Engraving and Printing (BEP) Western Currency Facility (WCF) Facilities Division is responsible for the contents of the Occupant Emergency Plan / Fire Prevention Plan (OEP/FPP), and for revisions to the Plan. The Environmental Health and Safety (EHS) Branch is responsible for training building occupants on the Plan.

ii Supersession

The contents of the OEP have previously been incorporated into the WCF Integrated Contingency Plan (ICP). The OEP has been unbundled from the ICP and issued as a separate document along with the FPP to facilitate employee access.

iii Revision History

Rev #	Purpose	Effective Date
Initial	Unbundle OEP/FPP from the ICP and post in the EMS Manual on InSite as a standalone document.	September 2016

iv Purpose

This document serves as the OEP for the BEP WCF, in accordance with OSHA Standards for an Emergency Action Plan (EAP) in 29 CFR 1910.38. The Plan also incorporates guidance contained in *Occupant Emergency Programs: An Interagency Security Committee Guide* published by the Interagency Security Committee. That guidance identifies minimum elements that should be considered in developing an OEP. The terms OEP and EAP are interchangeable. However, this document is titled Occupant Emergency Plan to convey an understanding that it applies both to BEP WCF employees and contractors working at the facility.

Federal Agencies are obligated by the Homeland Security Presidential Directive (HSPD) 5 to follow the National Incident Management System (NIMS) in emergency planning. Also, per requirements contained in HSPD-8-National Preparedness, heads of all executive departments and agencies with roles in prevention, protection, mitigation, response, and recovery are responsible for national preparedness efforts, including department-specific operational plans, as needed, consistent with their statutory roles and responsibilities. The OEP along with other volumes of the BEP WCF ICP enable the BEP WCF to fulfill those obligations.

This document also serves as the FPP in accordance with OSHA Standards in 29 CFR 1910.39.

The OEP has several purposes. First, the OEP provides basic information to building occupants about emergency conditions that may require them to evacuate, take shelter in tornado shelters, shelter-in-place or take other actions to keep them safe during an emergency. Second, it is intended to inform building occupants on how to report an emergency and to impart awareness of the various alarm and notification systems. Third, the OEP is to provide information to Emergency Wardens about their responsibilities during a fire alarm, tornado and severe weather alarm, or shelter-in-place emergency.

The main purpose of the FPP is to provide information to building occupants to help prevent a fire in the workplace and to prevent the loss of life and property from fire. Second, the FPP provides basic information to building occupants that will assist them in recognizing, reporting, and controlling fire hazards. It contains information about major fire hazards, proper handling and storage of flammable and combustible materials, potential ignition sources and their control, and the type of fire protection equipment available to control each major hazard.

v Scope

This OEP/FPP also applies to all employees, contractors, and visitors occupying the BEP WCF and assumes a localized emergency in which the BEP WCF is impacted in part or in whole.

Also, the OEP is applicable to all emergencies that may arise at the BEP WCF, or in the immediate area, that may represent a threat to personnel, property, environment, or other assets.

The FPP is applicable to all fire prevention measures, equipment, and procedures at the BEP WCF.

vi References

Other related documents that support the OEP/FPP include:

- 75W-04.0-02 Hot Work Permit Procedure
- Visitor Center SOP 24.0 Emergency and Assistance Procedures
- Procedures that contain requirements for controlling accumulations of flammable and combustible wastes are listed in FPP Section 4

vii Availability of the Plan

The OEP/FPP is available electronically via the WCF EMS Manual posted on In\$ite. This satisfies the requirement in 29 CFR 1910.38(b) for Emergency Action Plans and

29 CFR 1910.39(b) for Fire Prevention Plans that these plans be made available for review.

Construction contractors are given emergency briefings by their Contracting Officer's Representatives (CORs). Construction contractors are also given Contractor's Safety Orientations by the EHS Branch at the beginning of their projects. Those briefings cover actions that contractor employers and employees must take to ensure occupant safety from fire and other emergencies.

OCCUPANT EMERGENCY PLAN

1 Preparedness for an Emergency

There are many components of emergency preparedness that all occupants need to be aware of, as summarized in OEP Subsections 1.1 and 1.2 below:

1.1 General Facility Information

Facility Name	Western Currency Facility
Address	9000 Blue Mound Road, Fort Worth, TX 76131
Year Completed	1991
Type of Construction	Reinforced Concrete
Ownership	Facility is owned and operated by the BEP
Historic Property	The BEP WCF is not a historic property.
Gross Floor Area	~750,000 ft ²
Normal Operating Hours	Monday through Friday 24 hours per day. The BEP WCF is closed on most weekends and federal holidays.
Primary Facility Access	The primary vehicle and pedestrian access is located at the main entrance gate west of the building off Blue Mound Road. Armed police officers are posted at main entrance 24/7.
Required Authorization for Access	A government issued identification card or visitors badge is required to access through the vehicle and main entrance.

1.2 Notification, Communication, and Alarm Systems

The BEP WCF is equipped with multiple modes of notification, communication and alarm systems:

Communication Systems	Description
Telephone System	The BEP WCF has an IP based phone system.
In-House Wireless Telephones	The BEP WCF has a wireless house phone system with a limited number of phones.

Communication Systems	Description
Voice Communication System	Methods include public address system, hand held radios, and in-person sweeps of BEP WCF areas.
E-Mail	Most administrative personnel have immediate access to e-mail. Currency production personnel have email access, but it may not be immediate or constant.
Direct communication or instruction by Police	Any verbal instruction from a BEP WCF Police Officer must be followed by all building occupants.

Notification Systems	Description
BEP Alert Distribution System (BADS) Alerts	A system through which BEP Security may contact occupants in the case of critical life-safety events inside or within immediate vicinity of the BEP WCF. The BADS system is preloaded with employees' BEP WCF work telephone number and BEP WCF email address. Employees must register to receive the BADS alerts via their personal cell phone, home phone and personal email addresses.
WCF Work Information Hotline (817) 847-3888	This is a call in number that employees and contractors can call to receive information about facility closures or late arrival guidance, in the event of ice and snow conditions, or other conditions that may affect normal work schedules.

Alarm Systems	Description
Fire Alarm Annunciation and Alarm Tone	The fire alarm is a recorded message instructing occupants to evacuate. The recorded message is accompanied by an alternating alarm tone and white strobe lights throughout the building. The fire alarm is activated by manual pull stations or by heat or smoke sensing devices.
Tornado Alarm Annunciation and Tone	The tornado and severe weather alarm is activated by the Police Communication Center (PCC). The alarm tone consists of a rapid alternating tone throughout the building. The alarm tone is accompanied by blue strobe lights in some areas of production. Also, Police broadcast a live announcement with information about the threatening weather conditions.
Live Broadcast by Police over the Public Address system	Police may initiate a live broadcast to warn occupants of threats such as workplace violence/active shooter, hostage situations, civil disobedience or disorder, bomb threat, or other

Alarm Systems	Description
	threats. Occupants must follow any and all instructions from BEP WCF Police.

2 Activation of the OEP

Activation of the OEP requires quick recognition that an emergency exists or is developing. Actual or developing emergency scenarios that pose a threat to building occupants or the facility require activation of the OEP. Such emergency scenarios may include but are not limited to any of the following:

Emergency Situation	Occurring Inside the Facility	Occurring Outside the Facility
Fire or Explosion	X	X
Hazardous Material Incident	X	X
Medical Emergency	X	X
Tornado or Severe Weather		X
Elevator Malfunction or Entrapment	X	
Bomb Threat	X	
Hostage Situation	X	X
Workplace Violence/Active Shooter	X	
Suspicious Packages or Devices	X	X
Civil Disobedience or Disorder	X	X
Natural Gas Leaks	X	X
Suspicious or Unlawful Activity	X	X

When in doubt building occupants should always err on the side of reporting any situation that, in their judgment, may pose a threat to building occupants, the BEP WCF, or the local environment.

2.1 Reporting of a Fire or Other Emergency

Anyone can activate the OEP by making an emergency notification to Police. For all emergencies contact the **BEP WCF Police Communications Center (PCC)** by dialing "0" or 3700 from any internal telephone. The PCC is manned 24 hours per day.

Contact the Police Communications Center for all emergencies
THE PCC NUMBER FOR ALL EMERGENCIES IS: "0" or "3700"

The first person at the scene of a fire or any emergency should make immediate notification by dialing "0" or "3700" on any house phone. For fires you may also pull the nearest manual fire pull station. This will alert the PCC of the emergent fire. The first person on the scene may also notify a Police Officer to activate the OEP.

If calling from outside the facility or by cellular telephone, the PCC may also be contacted by an external line by dialing (817) 847-3700.

When notifying the PCC of a fire report the following information:

- Location of the fire;
- Nature and extent of the fire;
- If there are occupants missing, trapped or injured;

Once you have made the emergency notification immediately leave the area and follow evacuation instruction from Police.

3 Occupant Responses to Emergencies

During most foreseeable emergency scenarios there are several fundamental actions that building occupants will be instructed to take, which include:

- Evacuation to muster points,
- Taking shelter in tornado shelters, or
- Shelter-in-Place.

Each of these is discussed in Subsections 3.1, 3.2, and 3.3 respectively.

There are some circumstances for which building occupants must be prepared to respond to dynamic quickly changing events in the absence of immediate instruction from Police. Such circumstances may include active shooter, workplace violence and receipt of bomb threats. These are discussed in Subsections 3.4 and 3.5.

3.1 Building Evacuation

Upon activation of the fire alarm, all building occupants must quickly evacuate the building via the nearest exit and quickly assemble at their assigned muster points for accountability. (Refer to Muster Point Chart in Appendix A). The fire alarm system automatically deactivates the 15-second delay and releases the magnetic locks on the emergency exit doors. This allows the doors to be opened immediately by impacting the crash bar. Push the crash bar with enough force to overcome resistance to open the door.

Per 29 CFR 1910.38(c)(3), production employees will remain only long enough to safely shut down equipment, if safe to do so. Some employees remain as part of the Fire Alarm Response Team until the location of the fire has been confirmed. The Fire Alarm Response Team includes representatives from the Building O&M Contractor, BEP Stationary Engineers, and Environmental, Health and Safety (EHS) Branch. Police remain to perform necessary Police functions. Other than the above all other occupants must evacuate immediately.

A fire alarm consists of:

- a white strobe light accompanied by
- a high frequency alternating alarm tone, and
- a pre-recorded or live announcement by Police over the public address system.

Any one of the above signifies to employees the need to evacuate.

Occupants do not badge out during a fire alarm evacuation. During the evacuation employees must not go to the locker room or pick up any materials. Employees may not carry anything out with them during an evacuation. Employees are to leave their clear tote bags on the hooks by the exits in Production even if at shift change.

Employees evacuating from production cages should exit their area through the sliding exit doors or cage doors instead of the turnstiles.

Occupants on the second floor should use stairwells to reach an exit and not use the elevators. Employees with special needs during evacuation please read section 3.1.3.

Occupants must join with their respective office or department at the muster point and remain there for further instructions. They should make their presence known to the Emergency Warden. If they have knowledge of the whereabouts of employees that are not accounted for, make that known to the Emergency Warden.

3.1.1 Muster Areas

Each department or section has a designated muster area, each of which is numbered. Building occupants must know their muster area number and location. (Refer to Muster Point Chart in Appendix A). If not, occupants should ask their Emergency Warden or Supervisor.

At the muster points, occupants must remain out of the paved perimeter drive to allow unrestricted access for emergency vehicles. Employees must also remain at their muster points and not move to other muster points.

The metal containers at the muster areas contain red vests for the emergency wardens to wear for easy identification. The red batons are used to signal that all people are not accounted for and the green batons are used to signal that all people are accounted for.

The containers at the muster areas also have disposable blankets to use during cold or rainy conditions. To access the blankets you will need to remove the break-away seal and open the container. Nurses at Muster Area #4 are available to administer basic first aid if the need arises.

Building occupants must remain at their muster points until given an "all clear" by Police or as relayed by the EHS Branch. Once the all clear is given, employees must reenter the building through Post 15 and badge in as normal.

3.1.2 Alternate Muster Point

In the event the individual muster areas are too close to the emergency conditions, an alternate muster point is located in the northwest Transfer Station parking lot. It will only be used as determined by BEP Police. A container of emergency blankets is located at the northwest corner of this parking lot. Note: *There is not a muster area number or accountability sign at this alternate muster area.*

3.1.3 Employees Needing Assistance during Evacuations

Employees with special needs who require assistance to exit and cannot use the stairs, shall go directly to the nearest designated evacuation stairwell and wait for assistance. Stairwells in normally occupied areas have Evac Chairs to assist in the evacuation of mobility impaired individuals. Emergency Wardens will make sure that mobility impaired individuals are assisted in getting down stairwells using these Evac Chairs. The following stairwells do not have Evac Chairs:

- Warehouse,
- Production area north, south, and west penthouse stairwells.

Employees are responsible for informing their supervisor of any limitations hindering their ability to evacuate. Supervisors, once notified, shall ensure that the employee understands their role, duties and responsibilities during an evacuation, and notify the Emergency Wardens of the employee's need for assistance.

Deaf or hearing impaired employees should always look for and be aware of the fire alarm strobes and beacon lights to warn of any emergency. When assisting persons who have hearing impairments, flick the overhead lights when entering an area, use facial expressions and hand gestures to ensure hearing-impaired employees understand the need to evacuate, or use pencil and paper if necessary to communicate.

Respiratory impaired employees' symptoms can be triggered by stress, exertion, or exposure to the smell of small amounts of dust or smoke. Respiratory-impaired employees should keep their inhalation medication with them as they exit.

Employees using crutches, canes or other physical devices to assist in walking, that can negotiate the stairs, shall go to the nearest exit or exit stairwell and exit the building. Emergency Wardens shall offer assistance when needed. If unable to negotiate the stairs, go to the nearest exit stairwell and request assistance in evacuating.

Wheelchair-bound employees on the second floor shall go to the nearest exit or exit stairwell and request assistance in evacuating with an Evac Chair.

3.1.4 Modified Evacuation Plan for Inclement Weather

During cold or other types of inclement weather, the Police monitor predicted weather conditions and determine whether to activate the Modified Evacuation Plan. During this modified evacuation plan, building occupants are directed to the Visitor Center. The Visitor Center is separated by fire rated construction and is a suitable place to assemble in most circumstances.

The National Fire Protection Association (NFPA) Life Safety Code 101 Section 7.2.12 contains allowances for Areas of Refuge as part of required accessible means of egress. Areas of Refuge such as the Visitor Center are intended as a temporary area during evacuations.

As the emergency is assessed during an evacuation, Police will provide instruction to occupants if it becomes necessary to discontinue use of the Visitor Center as an area of refuge.

If the modified evacuation plan is put into effect the Police will notify managers and supervisors by email and will post signage at Post 15 that the plan is in effect.

The wording of the modified evacuation plan is as follows:

In the event the fire alarm is activated, instruct employees to evacuate through their nearest EXIT and go to the main entrance of the Visitor Center. A Police Officer will provide additional instructions if the alarm condition indicates that the Visitor Center is not suitable as a muster area. Once inside the Visitor Center, instruct employees to find their emergency warden. Instruct them to remain there until informed by a Police Officer or Safety Specialist that it is safe to return to the main building.

Other than going to the Visitor Center, all other normal emergency evacuation procedures are the same.

3.1.5 Emergency Warden Responsibilities During Evacuations

During a fire alarm, Emergency Wardens are responsible for the following tasks during an evacuation:

- Sweeping their work area and making sure all employees have been notified of the alarm and are responding accordingly;
- Coordinating and assisting in directing employees to their muster areas;
- Reminding employees of their muster area as they are evacuating;
- Identifying and locating employees who may need assistance in evacuation and assisting as needed.

To be prepared for emergency evacuations, Emergency Wardens are also responsible for:

- Maintaining an up to date list of the employees in their section;

- Gathering information on employees needing physical assistance;
- Ensuring employees in their section, office or work area know the exits, exit routes and where to assemble;
- Ensuring that evacuation paths are kept clear.

Note: During non-production weekends and holidays, the Police Services Branch must assume the role of the Emergency Wardens including accountability for all employees in the building.

3.1.6 Accountability at Muster Points

At the Muster Points, Emergency Wardens are responsible for the following accountability tasks during an evacuation:

- Taking a roll call at their muster point and accounting for all personnel who work in their area;
- Coordinating with Emergency Wardens from other areas that are mustering in a common Muster Area;
- Advising Police or Safety of any personnel that are unaccounted for; and
- Advising Police or Safety of any injuries to personnel.

Emergency Wardens should don the red vests in the metal containers for easy identification. Emergency Wardens should use the red and green batons to signal personnel accountability; red batons to signal that not all individuals are accounted for and the green batons to signal that all individuals are accounted for.

In the absence of an Emergency Warden at the Muster Points, any Supervisor may assume the responsibility for accountability.

3.1.7 Visitor Center Evacuation

During a fire alarm evacuation, Visitor Center Guides will direct visitors to exit routes and to the designated muster area (i.e. muster area #19). Visitors with special needs may need assistance by Visitor Center Guides during an emergency evacuation. Visitor Center Guides will ensure that the Visitor Center has been evacuated prior to their departure, as safety allows.

There are telephones located in the Visitor Center Elevated Walkway Tour and emergency stairways. The phones may be used for communication with the Police Communications Center by dialing “0” or “3700”.

Stairwells in the Visitor Center have been designated as temporary refuge areas for any employee or visitor who cannot evacuate the building without assistance by means of the stairs during an emergency, due to an injury or physical limitation.

The Visitor Center has Detailed Fire Evacuation and Tornado Sheltering procedures (Rio SOP 24.0 Emergency & Assistance Procedures) that are maintained by the Visitor Center staff.

3.2 Tornado and Severe Weather Alarm Sheltering

When severe weather is approaching and the area is placed under a tornado or severe weather alert, the PCC sends out an email to notify employees of the potential for a tornado or severe thunderstorm. Based on weather reports from the National Weather Service and other available resources, the Shift Commander for the PCC decides when to activate the severe weather-tornado alarm.

The severe weather-tornado alarm tone consists of a rapid alternating tone throughout the building and a live public address broadcast from the PCC. The alarm tone will be accompanied by blue strobe lights in selected production areas. Any one of the above alone (i.e. alarm, broadcast, or blue strobe) signifies the need to move to tornado shelters.

When the severe weather-tornado alarm is sounded, all building occupants must immediately proceed to the nearest tornado shelter. This is regardless of your location. The list of tornado shelters is attached as **Appendix B**. Sign the accountability sheet posted in the tornado shelter.

The only exception to severe weather sheltering is for Police.

When the severe weather alarm is activated, do not call the PCC or EHS Branch for clarification. Proceed immediately to the nearest shelter. Follow instructions given by the PCC, EHS Branch, or Emergency Wardens. These individuals have received specific training for evacuations and sheltering.

The largest tornado shelter is located at General Stores. There is a supply cabinet in that area. Please note that the drill or emergency is not over just because the alarm goes silent. Employees and contractors must remain in tornado shelters until an "all clear" announcement is made by Police.

3.2.1 Emergency Warden Responsibilities during a Severe Weather Alarm

During a severe weather alarm, Emergency Wardens are responsible for the following tasks:

- Sweeping their work area and making sure all employees have been alerted and are evacuating to shelters;
- Identifying and locating employees who may need assistance in moving to a shelter and assisting as needed.

Emergency Wardens are also responsible for:

- Maintaining an up to date list of the employees in their section;
- Gathering information on employees needing physical assistance; and
- Ensuring that employees in their section, office or work area know the locations of the nearest tornado shelters and routes to reach the shelters.

Note: During non-production weekends and holidays, the Police Services Branch must assume the role of the Emergency Wardens including accountability for all employees in the building.

3.2.2 Visitor Center Severe Weather Sheltering

During a tornado or severe weather alarm, Visitor Center staff will implement the Visitor Center Tornado Evacuation Procedures (Rio SOP 24.0 Emergency & Assistance Procedures). Visitor Center staff members are responsible for keeping visitors in shelters until an all clear has been announced by Police.

3.3 Shelter-in-Place

There may be some emergency conditions for which sheltering-in-place is appropriate rather than building evacuation. Examples of emergency conditions that may prompt BEP WCF Police to implement Shelter-in-Place include:

- Hazardous material incidents
- Workplace violence or active shooter
- Hostage situation
- Suspicious packages or devices
- Fire outside the building
- Civil disobedience.

Shelter-in-place may be appropriate when there is a need to:

- Quickly move first responders to an incident;
- Protect employees from immediate danger;
- Facilitate employee accountability;
- Facilitate communications to employees.

Depending on the nature of the emergency, the Police Shift Commander will make the decision to implement the shelter-in-place, in which case a verbal announcement will be made through the public address system or verbal instructions will be given by Police officers. Police will provide updates as appropriate to the circumstances.

Sheltering-in-place involves remaining where you are at the time of notification until the threat or hazard has been identified and mitigated. The need to shelter-in-place is based on the circumstances at the time the threat or hazard has been identified. The decision to shelter-in-place is made by Police only.

At the time a shelter-in-place order is communicated by Police, persons working outdoors must move to a safe area as directed by Police. Alert other employees to move to a safe area.

When sheltering-in-place, building occupants should:

- Remain quiet and make no telephone calls;
- Attempt to conceal themselves;
- Lock doors in their offices and turn off the light;
- Stay out of open areas such as hallways and stairwells;
- Remain sheltered-in-place until Police have determined that it is safe.

Each incident is fact-specific and it is important to follow all instructions given by Police.

3.4 Immediate Threat in Work Area

If there is an immediate threat in your work area such as an active shooter or act of workplace violence, take the following actions: **Run, Hide, or Fight.**

Run Escape to safety is the first option if possible. If running to escape is the best option:

- ✓ Have an escape route and plan in mind;
- ✓ Evacuate regardless of whether others agree to follow;
- ✓ Leave your belongings behind;
- ✓ Help others escape if possible.

Hide If you are unable to escape, seek another location to conceal yourself and your co-workers if possible. Lock doors if possible, turn out lights, remain quiet, and silence cell phones. Move away from doors.

Fight If escape and hiding are not possible, fight and resist by using any available items as a weapon to defend yourself.

During such an incident your first responsibility is to protect yourself while the Police are working to neutralize the threat. Also, warn other individuals not to enter an area where an active shooter may be.

- ✓ Keep your hands visible; and
- ✓ Follow the instructions of any police officers.

During any such event always follow instructions given by Police.

3.5 Receipt of Bomb Threat

In the event any building occupant receives a bomb threat there are certain actions that must be taken.

If you receive a bomb threat by telephone:

- Without alerting the caller, attempt to get the attention of your supervisor or another person in your area and write "bomb" on a piece of paper and show it to him/her. Your supervisor or co-worker should call PCC immediately.
- Attempt to keep the caller on the line as long as possible to permit tracing and to gather information. Do not hang up the phone until all attempts to trace have been initiated.
- If your phone has a display, copy the number and/or letters on the window display.
- The person who receives the call should listen closely to the caller and complete the Bomb Threat Aid during the call. The Bomb Threat Aid should be posted near every phone for quick access. If not readily available the Bomb Threat Aid must be completed immediately following the call and giving to the Police.
- Listen closely to the caller and;
 - ✓ Record in writing the exact words of the caller. Attempt to ascertain the location of the bomb, type of device, what it looks like, and expected time of detonation.
 - ✓ Attempt to determine the sex, approximate age, the attitude of the caller and specific reasons or motives for his or her actions in placing the bomb.
 - ✓ Note any background voices or noises that may provide a clue to the caller's location.
 - ✓ Note any accent or peculiarity of speech which may help to identify the caller.
 - ✓ Ask the caller questions such as "Who is calling please?" or "What is your name?"
- Turn off two-way radios and cell phones. These devices may trigger the explosive device. Radios or cell phones in the vicinity should remain off until the matter is resolved and the PCC issues the "All Clear".

If a threat is received by handwritten note or through the mail:

- Call PCC immediately.
- Handle the note as minimally as possible.
- If received via email, do not delete or forward any email message unless instructed to by emergency personnel.

4 Review of Occupant Emergency Plan with Building Occupants

The EHS Branch conducts training on the OEP as follows:

- ✓ Annually to all employees and resident contractors (Module 119);
- ✓ Initially to all Emergency Wardens specific to their duties (Module 120) and for continual improvement;
- ✓ During new employee training; and
- ✓ Specific parts of the OEP are covered during Contractor Orientation.

Police Services is responsible for conducting training on specific issues such as Active Shooter as needed.

FIRE PREVENTION PLAN

1 Basic Fire Prevention

1.1 Fire Tetrahedron

Starting and sustaining a fire requires four components; fuel, heat, oxygen, and a chain reaction. This is known as the fire tetrahedron. Fires can be prevented or controlled by removing any of the four components of the fire tetrahedron.

- Without a source of fuel a fire will not burn.
- Without a source of ignition it will not ignite.
- Without oxygen the fire will not propagate.

Removal of any of these components prevents the chain reaction from propagating.

The basic theory of fire prevention is to interrupt the components of the fire tetrahedron that allow fires to start and propagate.

All building occupants should be proactive in supporting and practicing fire prevention measures. This includes being observant of your workplace environment and watching for conditions that promote starting or spreading of fires. Immediately report or correct any conditions that may allow for the dangerous combination of fuel, heat, and oxygen. If you are uncertain or are unable or unauthorized to correct fire safety concerns, contact your immediate supervisor or the EHS Branch.

1.2 Basic Fire Prevention Measures

Good housekeeping is one of the most basic tenets of fire prevention both in office areas and in production and facility support areas. Other basic fire prevention measures may include any or all of the following practices:

- ✓ Do not allow electrical outlets to be overloaded.
- ✓ Do not plug one power strip into another power strip.
- ✓ Multi-Plug Strips should only be used for office equipment such as computers and printers. They must have a circuit breaker and be UL Listed.
- ✓ Extension cords are only approved for temporary use. Never use damaged or frayed wiring. Do not use a cord from which the ground pin has been removed.
- ✓ Burning of candles is not allowed.
- ✓ Toasters and microwave ovens must be used only in the break and kitchen areas. When you are using a microwave or toaster stay with your food. Items cooked too long in microwaves and toasters can smoke or even catch on fire.

- ✓ Do not allow electrical outlets to be overloaded.
- ✓ Keep paper products away from "heat sources".
- ✓ Turn off coffee pots when finished.
- ✓ The use of portable space heaters is discouraged. Preferred types of portable space heaters include electric, oil filled radiators and an under desk heating mat types that do not have exposed heating elements. Do not leave space heaters unattended. Unplug space heaters at the end of each work day.

Basic fire prevention measures for production areas, production support and mechanical areas include:

- ✓ Minimizing the storage of flammable and combustible materials.
- ✓ Keeping doors, hallways, stairs, and other exit routes free of obstructions.
- ✓ Disposing of combustible waste in secure containers.
- ✓ Using flammable materials in well ventilated areas and away from potential sources of ignition.
- ✓ Using non-flammable products when there is a safer alternative.
- ✓ Separating incompatible (potentially reactive) chemicals.
- ✓ Performing hot work (such as welding, soldering, cutting torch, etc.) in controlled and well-ventilated areas.
- ✓ Ensuring that hot work permits are obtained before starting any hot work.
- ✓ Keeping equipment in good working order.
- ✓ Cleaning up flammable liquid leaks immediately.
- ✓ Keeping work areas free of clutter, dust, lint, sawdust, scrap, or other combustible materials.
- ✓ Keeping metal rag containers closed and not propping open the lids. Rag containers should never be overflowing.
- ✓ Not allowing trash, paper scraps, or other debris to accumulate.
- ✓ Replacing safety cans or other containers or cans if they become damaged or are in a state of disrepair.

1.3 Smoking Restricted to One Designated Area

Smoking is restricted to one designated area on the north side of the building. Smoking is not allowed in any other area of the site including the parking lot.

2 Major Fire Hazards and Associated Fire Prevention and Protection

29 CFR 1910.39(c)(1) requires that the FPP contain a list of all major fire hazards, proper handling and storage procedures for hazardous materials, potential ignition sources and their control, and the type of fire protection equipment necessary to control each major hazard. FPP Sections 2.1 through 2.6 addresses those requirements. Where there are relevant applicable procedures they are referenced herein.

2.1 Potential Ignition Sources

Potential ignition sources may include:

- Open flames
- Smoking
- Static electricity
- Cutting and welding
- Hot surfaces
- Electrical and mechanical sparks from energized electrical equipment
- Lightning
- Spontaneous combustion of solvent soaked rags.

Always remain aware of potential ignition sources that may exist in near proximity to flammable or combustible materials.

2.2 Flammable and Combustible Liquids

2.2.1 Flammable Liquids Storage Building

Flammables Liquids Stored	Type of Containers
VSC Isomet Ethyl Alcohol Odorless Mineral Spirits BOTTCHER 4050 LO-VO-50 WD-40 142 Flash Naphtha-Shellsol	55-gallon drums; One-gallon glass containers; 55-gallon drums; 350-gallon metal totes; 350-gallon metal totes; 55-gallon drums; 350-gallon metal totes.
Potential ignition sources	Static electricity Energized electrical equipment
Fire Prevention Measures	Building constructed to Class 1 Division 2

Flammables Liquids Stored	Type of Containers
	<p>specifications.</p> <p>Intrinsically safe electrical equipment and lighting in the Flammable Liquids Storage Building (FLSB);</p> <p>Grounding of storage containers (totes and 55 gallon drums);</p> <p>Use of bonding straps when transferring liquids to safety cans or 30 and 60 gallon carts;</p> <p>Use of EE rated forklift trucks.</p> <p>There are two related EMS procedures that address storage, handling, and dispensing of flammable liquids Flammable Liquids Storage Building including:</p> <ul style="list-style-type: none"> • 75W-07.0-01 Offloading Drums and Totes Containing Flammable Materials • 75W-07.0-02Storage and Transfer Procedure for Flammable Liquids <p>The EHS Branch monitors solvent dispensing in the Flammable Liquids Storage Building to ensure safe work practices.</p>
Fire Protection Equipment	<p>Automatic sprinkler system</p> <p>ABC multipurpose type fire extinguishers</p>

2.2.2 Flammable Liquids dispensed from Flammable Liquids Storage Building and Used/Stored in Production Areas

Flammable Liquids Stored	Types of Containers
Solvents dispensed from the Flammable Liquids Storage Building and transferred to Production areas	<p>60-gallon cart</p> <p>(2) to (5) gallon Safety Cans (UL listed or Factory Mutual approved)</p>
Potential Sources of ignition	<p>Static electricity</p> <p>Energized electrical equipment</p> <p>Hot work or open flame</p>
Fire Prevention Measures	<p>Use of flammable liquid cabinets (meet NFPA requirements) for smaller containers.</p>

Flammable Liquids Stored	Types of Containers
	<p>Use of flammable liquid drum cabinets for 55-gallon drums.</p> <p>Space heaters are not allowed in Production areas.</p> <p>Keep containers with flammable liquids away from sources of heat and electrical components.</p> <p>Each Department is to only have one day's supply of solvent in the building at one time.</p> <p>In Plate Printing the 30- or 60-Gallon Solvent Carts must be properly grounded before filling the press reservoirs on the printing presses.</p> <p>In Plate Printing the 60-gallon cart must not be used to dispense into safety cans. Only "Lo Vo Wash 50" goes into the safety cans.</p>
Fire Protection Equipment	<p>Sprinkler system</p> <p>ABC multipurpose type fire extinguishers</p>

2.3 Waste Solvents

2.3.1 Waste Solvents at Satellite Accumulation Areas

Several areas of the facility generate solvent waste from using the various solvents dispensed from the FLSB. They are initially accumulated near the point of generation (i.e. Satellite Accumulation Areas) and then transferred to the 90-Day Central Waste Accumulation Area (CWAA) when full. The solvent wastes are shipped within 90 days of being placed in the 90-Day CWAA.

Flammable solvents Stored or Used	Types of Containers
Solvent waste accumulated near point of generation	55-gallon drums
Potential Sources of ignition	<p>Static electricity</p> <p>Energized electrical equipment</p> <p>Hot work or open flame</p> <p>Spontaneous combustion from solvent soaked rags</p>
Fire Prevention Measures	All areas that have Satellite Accumulation Areas (SAA) have Waste Handling Procedures (accessible in the EMS Manual on In\$ite). See FPP Section 4 for a list of those procedures.

Flammable solvents Stored or Used	Types of Containers
	The procedures identify controls including grounding, bonding, and container management that help prevent fires and spills.
Fire Protection Equipment	Sprinkler system ABC multipurpose type fire extinguishers

2.3.2 Waste Solvents at 90 Day Central Waste Accumulation Area

Flammables Solvents Stored or Used	Types of Containers
Solvent waste transferred from the SAAs.	55-gallon drums
Potential Sources of ignition	Static electricity Energized electrical equipment Hot work or open flame
Fire Prevention Measures	Secondary Containment Isolation from sources of heat or open flame Good container management practices
Fire Protection Equipment	Sprinkler system ABC multipurpose type fire extinguishers

2.4 Hot Work and Flammable Gases

2.4.1 Welding, Cutting, Grinding or Other Types of Hot Work in Designated Areas (i.e. Non-Production EM Shop; Production EM Shop, O&M Welding Shop)

Flammables Gases Stored or Used	Type of Containers
Acetylene Oxygen	Gas cylinder
Potential ignition sources	Open flame Heat
Fire Prevention Measures	<p>Fire prevention measures for welding, cutting and brazing and handling and storage of gas cylinders include following requirements in two different OSHA Standards; 29 CFR 1910.101(b) (which references requirements in Compressed Gas Association Pamphlet P-1-1965) and 29 CFR 1910 Subpart Q. These standards must be followed for persons performing welding, cutting, and grinding in designated areas.</p> <p>29 CFR 1910.101(b) contains requirements for gas cylinder storage and handling, which include:</p> <p>Securing gas cylinders at all times to prevent tipping, falling or rolling. They should be secured with straps or chains connected to a wall bracket or other fixed surface, or by use of a cylinder stand.</p> <p>Gas cylinders should be stored in a cool, dry, well ventilated, fire resistant area.</p> <p>When a gas cylinder is empty or not being used the valve should be closed, the regulator removed, and the valve protector cap secured on the cylinder.</p> <p>If gas cylinders are transported, hand trucks designed for that purpose should be used, with the cylinders well secured.</p> <p>The valve protection cap should not be used for lifting a gas cylinder.</p> <p>Special precautions should be taken to avoid dropping gas cylinders or allowing them to strike other cylinders or objects.</p>

Flammables Gases Stored or Used	Type of Containers
	<p>Following the requirements in 29 CFR 1910 Subpart Q—Welding, Cutting and Brazing is the primary means of fire prevention for welding, cutting, and brazing.</p> <p>This standard contains basic fire prevention precautions that must be observed.</p> <p>Conducting operations in accordance with NFPA 51B, Standard for Fire Prevention During Welding, Cutting, and Other Hot Work also support fire prevention for these activities.</p>
Fire Protection Equipment	<p>Automatic sprinkler system</p> <p>ABC multipurpose fire extinguishers</p>

2.4.2 Welding, Cutting, Grinding or Other Types of Hot Work in Other Than Designated Areas

Flammables Gases Stored or Used	Type of Containers
Acetylene Oxygen	Gas cylinde
Potential ignition sources	Open flame Heat
Fire Prevention Measures	<p>In addition to complying with the OSHA standards in 29 CFR 1910 Subpart Q, persons welding, cutting, or performing any other type of hot work in areas other than the designated areas must comply with the WCF Hot Work Permit procedure (75W-04.0-02). This includes obtaining a hot work permit from the EHS Branch and complying with all provisions of the permit.</p> <p>The hot work permit is issued for a specified start time and end time. It requires that a fire watch be designated including a fire watch end time.</p> <p>Welding, cutting and grinding or other types of hot work in other than designated areas is also subject to requirements in NFPA 51B, Standard for Fire Prevention During Welding, Cutting, and Other Hot Work.</p>
Fire Protection Equipment	<ul style="list-style-type: none"> • Automatic sprinkler system • ABC multipurpose fire extinguishers

2.5 Natural Gas Fired Combustion Equipment

2.5.1 Thermal Oxidizer

Flammables Gases Stored or Used	Type of Container
Natural Gas	Natural gas supply line
Potential ignition sources	Open flame Heat
Fire Prevention Measures	<p>The Regenerative Thermal Oxidizer (RTO) is equipped with an emergency stop button in the control room.</p> <p>The control system is equipped with safety features that prevent lighting of burners unless inlet damper, gas pressure, and chamber temperatures and combustion fans are in a proper operating configuration.</p> <p>The system is equipped with alarms and an automatic shutdown sequence set to activate during abnormal conditions or conditions outside established set points.</p> <p>The RTO is outdoors and isolated from the main building.</p>
Fire Protection Equipment	Fire Department Valves

2.5.2 Boilers

Flammables Gases Stored or Used	Type of Container
Natural Gas	Natural gas supply line
Potential ignition sources	Open flame Heat
Fire Prevention Measures	<p>Keeping combustible materials away from the boilers.</p> <p>Preventive maintenance to keep the equipment in good working condition.</p>
Fire Protection Equipment	Automatic sprinkler system ABC multipurpose fire extinguishers

2.6 Diesel Fired Combustion Equipment

2.6.1 Emergency Generators

Flammables Liquid Stored or Used	Type of Container
Diesel	650-gallon steel tanks on three emergency generators
Potential ignition sources	Internal combustion Heat
Fire Prevention Measures	Keeping combustible materials away from the emergency generators. Preventive maintenance to keep the equipment in good working condition.
Fire Protection Equipment	Automatic sprinkler system

2.6.2 Diesel Firewater Pump

Flammable Liquid Stored or Used	Type of Container
Diesel	360-gallon steel tank
Potential ignition sources	Internal combustion Heat
Fire Prevention Measures	The diesel firewater pump house is isolated from the main building. Preventive maintenance to keep the equipment in good working condition.
Fire Protection Equipment	ABC multipurpose fire extinguishers

3 Use of Fire Extinguishers

Fire extinguishers are located in many areas in the BEP WCF and are intended to extinguish incipient stage fires. Always notify the PCC before attempting to extinguish an incipient stage fire.

Employees' use of fire extinguishers is optional. However, if the employer provides portable fire extinguishers for employee use in the workplace, OSHA 29 CFR 1910.157(g) requires that the employer shall also provide an educational program to familiarize employees with the general principles of fire extinguisher use and the hazards involved with incipient stage firefighting.

It is important to be aware of the three stages of a fire:

- Incipient (just starting)
- Free Burning
- Smoldering

Fire Extinguishers are for incipient stage fires only. Do not attempt to use a fire extinguisher if a fire is beyond the incipient stage. The reasons for not doing so include:

- The fire could block your escape route,
- It may obscure your escape route, or
- It may affect your ability to breath.

3.1 Types of Extinguishers and Corresponding Fire Classifications

The types of fire extinguishers relevant to the WCF include:

Class	Type	Effective Distance Up To	Effective Duration
Class A	Water	35-40 feet	60 seconds
Class BC	Carbon dioxide	3-8 feet	30 seconds
Class ABC	Dry chemical multi-purpose	20 feet	30 seconds

Class A extinguishers are identified by the letter "A" on a solid green triangle.
 Class B extinguishers are identified by the letter "B" on a solid red square.
 Class C extinguishers are identified by the letter "C" on a solid blue circle.
 Class ABC extinguishers are identified by the letters "ABC" on a solid yellow rectangle.

The primary fire classifications include:

Fire Classification	Materials Involved
Class A fires	Ordinary combustible materials such as wood, cloth, paper, rubber and plastics.
Class B fires	Flammable liquids, combustible liquids, petroleum greases, tars, oils, paints, solvents, lacquers, alcohols and flammable gases.
Class C fires	Involving electrical equipment.
Class D fires	Involving combustible metals. (not present at the WCF)

Most extinguishers put out the fire by cooling the fuel below its ignition point, by cutting off the supply of oxygen, or by the combination of both.

3.2 Selection of the Right Type of Fire Extinguisher

Make sure you use the right type of fire extinguisher on a fire. Based on the above information, selection of the right type of extinguisher is easily determinable as follows:

For	Use
Class A fires involving combustible materials such as wood, cloth, paper, rubber and plastics.	Class A (water) or Class ABC (multipurpose dry chemical) extinguishers
Class B fires involving flammable liquids, combustible liquids, petroleum greases, tars, oils, paints, solvents, lacquers, alcohols, flammable gases.	Class BC (carbon dioxide) extinguishers or Class ABC (multipurpose dry chemical) extinguishers
Class C fires Involving energized electrical equipment including any device that uses, produces or delivers electrical energy.	Class BC (carbon dioxide) extinguishers or Class ABC (multipurpose dry chemical) extinguishers

Most of the fire extinguishers at the BEP WCF are the ABC type and can be used for any class of incipient stage fire.

Never use Class A (water) extinguishers on Class B fires (i.e. flammable and combustible liquids or gases). This could cause the fire to spread.

Never use Class A (water) extinguishers on Class C fires (i.e. electrical fires). Water is a good electrical conductor and may cause electrocution if used to extinguish an electrical fire.

3.3 Special Application Extinguishers

There are two additional types of portable fire extinguishing units in use at the WCF for special purposes.

- Halotron fire extinguisher in the Atrium Machine Room.
- Aqueous Film-Forming Foam (AFFF) extinguisher in the Trash Loading Dock

3.4 Proper Use of Fire Extinguishers

Initiate the use of an extinguisher only after you have (a) determined what is burning and that it is at an incipient stage, (b) you know what type of extinguisher to use and (c) you have notified somebody of your intent.

Then follow the “PASS” sequence to use the extinguisher on the fire:

- ✓ Pull the pin.
- ✓ Aim the nozzle.
- ✓ Squeeze the handle.
- ✓ Sweep side to side at the base of the fire

As discussed in FPP Section 3.1 each type of extinguisher also has a particular range at which it's useful. This range is not perfect for all fire conditions.

Extinguishers can be affected by wind or high ventilation rates. Short bursts from the extinguisher can be an effective tactic, but you must continuously monitor your progress to determine if the fire is becoming knocked down before your extinguishing agent is depleted. As the fire diminishes while using the extinguisher, be observant for re-ignition. Always have an exit route behind you when using an extinguisher. If you are outside approach the fire from upwind. Never turn your back on a fire.

4 Procedures to Control Accumulations of Flammable-Combustible Wastes

29 CFR 1910.39(c)(2) requires that the FPP identify procedures to control accumulations of flammable and combustible waste materials. The BEP WCF has a series of procedures in the EMS manual that contain such requirements.

Procedure Name	Document Number
Offset Printing Waste Handling Procedure	75W-03.0-02
Intaglio Printing Waste Handling Procedure	75W-03.0-03
Ink Mill Waste Handling Procedure	75W-03.0-04
Roller Recovery Waste Handling Procedure	75W-03.0-05
Plate Making Waste Handling Procedure	75W-03.0-06
LEPE Waste Handling Procedure	75W-03.0-07
Cope Waste Handling	75W-03.0-08
Mechanical Exam Waste Handling Procedure	75W-03.0-09
Building O&M Waste Handling Procedure	75W-03.0-10
QA Lab Waste Handling Procedure	75W-03.0-11
Wastewater Treatment Plant Waste Handling Procedure	75W-03.0-12
EM Shop Waste Handling Procedure	75W-03.0-13
Inspection of Incoming Drums of Pre Wipe Ink from DCF	75W-03.0-14
Management of Solvent Contaminated Rags	75W-03.0-15

All of the waste handling procedures have similar requirements concerning accumulation of flammable and combustible wastes. The similar requirements include:

- Placing waste in proper containers and keeping those containers closed except when adding waste;
- Grounding of flammable liquid containers;
- Labeling requirements;
- Transferring drums of ignitable and other hazardous waste to the 90-Day Central Waste Accumulation Area within 3 days from becoming full.

These procedures also address the proper handling of solvent-contaminated rags generated in each section. Solvent contaminated rags must be placed into red safety step cans and must not be dripping wet. These red step cans must be kept closed and must not be overflowing. The red step cans must also be labeled as "Solvent Contaminated Wipes".

5 Procedures for Maintenance of Safeguards on Heat Producing Equipment and Fuel Source Hazards

29 CFR 1910.39(c)(3) requires that the FPP identify procedures for regular maintenance of safeguards installed on heat-producing equipment to prevent the accidental ignition of combustible materials. 29 CFR 1910.39(c)(4) requires the name

or job title of employees responsible for maintaining equipment to prevent or control sources of ignition or fires; and 29 CFR 1910.39(c)(5) requires the name or job title of employees responsible for the control of fuel source hazards.

The requirements of 1910.39(c)(3), (4) and (5) are interrelated. The measures established to address each of these is summarized in the two tables below. The heat producing equipment and fuel source hazards identified in the table below are those identified in the preceding FPP Subsections 2.2 through 2.6.

5.1 Heat Producing Equipment and Maintenance of Safeguards

Heat Producing Equipment	Procedures for Maintenance of Safeguards	Responsible Parties
Gas Fired Combustion Equipment (Thermal Oxidizer and Boilers)	Preventive maintenance through Maximo generated work-orders	Building O&M Contractor.
Diesel Fired Combustion Equipment (Emergency Generators and Diesel Firewater Pump)	Preventive maintenance through Maximo generated work-orders	Building O&M Contractor

5.2 Control of Fuel Source Hazards

Fuel Source Hazards	Procedures for Maintenance of Safeguards	Responsible Parties
Flammable liquids in Flammable Liquid Storage Building	75W-07.0-01 Offloading Drums and Totes Containing Flammable Materials 75W-07.0-02 Storage and Transfer Procedure for Flammable Liquids	Material Handlers PPWs from Printing Sections Safety Specialists responsible for monitoring of Flammable Liquid Storage Room
Flammable liquids dispensed from Flammable Liquids Storage Building and taken to Production Areas	Follow fire prevention measures in FPP Section 2.2.2	PPWs and employees in all Sections that use solvents
Waste Solvents	Waste Handling Procedures (see list in FPP Section 4)	Employees in all areas that have waste handling equipment

6 Review of Fire Prevention Plan with Building Occupants

The EHS Branch conducts training on the FPP as follows:

- Annually to all occupants (Module 131 Fire Plan and use of Fire Extinguishers) and;
- During new employee training; and
- Specific parts of the FPP are covered during Contractor EHS Branch Briefings.
- Hands-on training on the use of extinguishers is also available by EHS Branch personnel.

Appendix A Muster Point Chart

Muster Point #1

Human Resources
Workers Comp.
Compliance
Quality
Facilities Support
Power Plant
EHS Branch
Mail Room

Muster Point #2

Assoc. Director
IT
Legal
External Affairs
ELMR
EEO
OCM
Production Trainers

Muster Point #3

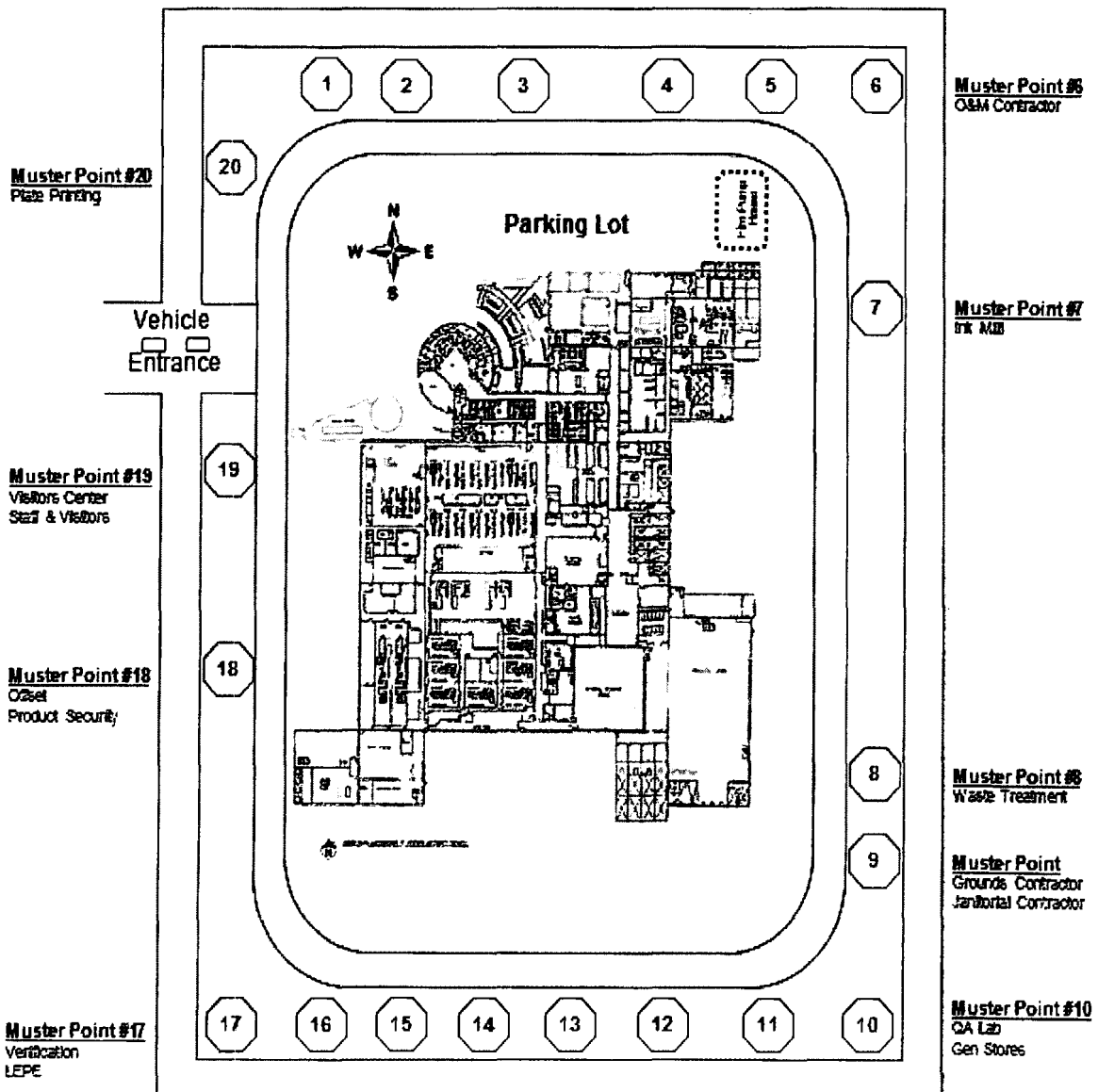
Outside Contractors

Muster Point #4

Health Unit
Canteen
BEN Contractor
Credit Union

Muster Point #5

Physical Security
Police Admin
Personnel Security
Badge Room
Security Contractor



Muster Point #16
Mech. Exam

Muster Point #15
CODE

Muster Point #14
EM Shops

Muster Point #13
Rolloff Room

Muster Point #12
Plate Making

Muster Point #11
FRV
SN


Appendix B Severe Weather Shelters

BEP/WCF SEVERE WEATHER SHELTERS

AREA	LOCATION	ROOM #	PHONE #	CAPACITY
ADMINISTRATION	1 ST FLOOR HALLWAY	HALLWAY	NONE	35 *
ADMINISTRATION	COFFEE AREA/BREAK AREA	A-138	NONE	4
ADMINISTRATION	MEN'S BATHROOM	A-135	NONE	6
ADMINISTRATION	WOMEN'S BATHROOM	A-137	NONE	6
INK MILL	WOMEN'S RESTROOM	M116	NONE	15 *
INK MILL	MEN'S RESTROOM	M117	NONE	30 *
INK MILL	LAUNDRY ROOM	M119	NONE	3
NON-PRODUCTION AREA	GENERAL STORES	P130	EXT. 3855	300 *
NON-PRODUCTION AREA	MAIN LOCKER ROOM-WOMEN'S	S119	817-232-9968	70 *
NON-PRODUCTION AREA	MAIN LOCKER ROOM-MEN'S	S120	NONE	70 *
NON-PRODUCTION AREA	HEALTH UNIT	S104	EXT. 3843 & 3844	10
NON-PRODUCTION AREA	POST # 18	A182	EXT. 3668	5
PRODUCTION	GENERAL STORES	P130	EXT. 3855	300 *
PRODUCTION	MECH EXAM/ CURRENCY CONTROL OFFICES	P129A	EXT. 3611 / 3715	30
PRODUCTION	OFFSET BREAKROOM	SE101	3649	90
PRODUCTION	OFFSET MEN'S RESTROOM	SE 103	NONE	30
PRODUCTION	OFFSET WOMEN'S RESTROOM	SE 102	NONE	30
PRODUCTION	OFFSET OFFICE	P-109	EXT. 3718	25
PRODUCTION	PLATE MAKING	P120	EXT. 3817 & 3931	170
PRODUCTION	POST # 19	P150	EXT. 3923	5
PRODUCTION	OFFSET STAIRS	SE 107	NONE	20
PRODUCTION	OFFSET JANITOR'S CLOSET	SE 105	NONE	5
PRODUCTION	EM SUPERVISORS' OFFICE	SE 104	3995	25
RECEIVING DOCK AREA	WOMEN'S RESTROOM SHIPPING	P173	NONE	10 *
RECEIVING DOCK AREA	MEN'S RESTROOM SHIPPING	P172	NONE	10 *
TRANSFER STATION	MEN'S RESTROOM	T103	NONE	15
TRANSFER STATION	WOMEN'S RESTROOM	T104	NONE	15
VISITOR CENTER	MEN'S RESTROOM	VC129	NONE	25
VISITOR CENTER	WOMEN'S RESTROOM	VC127	NONE	25
VISITOR CENTER	NORTHEAST END OFFICE HALLWAY	VC117	NONE	30
VISITOR CENTER	HALLWAY IN FRONT OF ELECTRICAL ROOM & TWO OTHER ROOMS	VC112	NONE	50

BEP/WCF SEVERE WEATHER SHELTERS (continued)

AREA	LOCATION	ROOM #	PHONE #	CAPACITY
VISITOR CENTER	SOUTH WALL OF VISITOR'S CENTER UNDER MEZZANINE	NONE	NONE	100
VISITOR CENTER	WEST END OF VISITOR CENTER DISPLAY AREA, NORTH CORNER	NONE	NONE	30
VISITOR CENTER	HALLWAY IN FRONT OF JANITORIAL'S CLOSET	VC128	NONE	5
VISITOR CENTER	HALLWAY IN FRONT OF FIRST AID	VC113	EXT. 4010 & 5010	10
VISITOR CENTER	NORTHEAST STAIRWAY BOTTOM	VC115	NONE	15
VISITOR CENTER	OFFICES ON EAST END (STORAGE ROOM)	NONE	TBD	25
VISITOR CENTER	NORTHEAST OFFICE STORAGE	NONE	NONE	10
FRONT GATE	POST # 12 / PROCESSING CENTER	NO ROOM #	EXT. 3834	5
NON-EM SHOP	TOOL CRIB ROOM	S-133	NONE	10
POLICE AREA	A178 TRAINING & MAINTENANCE	A178	EXT. 3874	20
POLICE AREA	PCC	A178/181	EXT. 3700	5
POLICE AREA	PCC HALLWAY	HALLWAY	NONE	30
POLICE AREA	MEN'S LOCKER ROOM	A189	NONE	40
POLICE AREA	POLICE LT. OFFICE	A165	EXT. 3872	5
POLICE AREA	READY ROOM	A170-173	EXT. 3774	30
POLICE AREA	POLICE OPERATIONS OFFICE	NO ROOM #	EXT. 3974	4
POLICE AREA	WOMEN'S LOCKER ROOM	A166	NONE	15
OFFSET POWER PLANT	MECHANICAL OFFICE	SE-112	4029	15
OFFSET POWER PLANT	RESTROOM	SE 114	4029	5
FRV SHIPPING STAGING AREA (for drivers and FRV employees only)	SECURITY STATION AREA	P168	NONE	5
FRV SHIPPING STAGING AREA (for drivers and FRV employees only)	RESTROOM	P166	NONE	3
FRV SHIPPING STAGING AREA (for drivers and FRV employees only)	RESTROOM	P156	NONE	3
FRV SHIPPING STAGING AREA (for drivers and FRV employees only)	SECURITY STATION AREA	P158	NONE	5
FRV SHIPPING STAGING AREA (for drivers and FRV employees only)	HALLWAY TO SECURITY STATION	155/155A	NONE	15

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	Approved By: Larry R. Felix	Signature: <SIGNED>	

1.0 Purpose

To affirm the Bureau of Engraving and Printing's (Bureau) commitment to Environmental, Health and Safety (EHS) leadership in reducing environmental impacts and health and safety risks of the Bureau's operations, products and facilities.

2.0 Scope

This policy applies to all Bureau facilities, activities, employees and contractors.

3.0 Policy


It is the policy of the Bureau of Engraving and Printing to produce the currency of the United States of America and other securities in a manner that minimizes negative environmental, health and safety impacts of our operations and products to the fullest extent possible. Specifically the Bureau commits to:

- 3.1 The preservation of human and natural resources through injury and illness risk reduction and environmental stewardship;
- 3.2 Work to continually improve the Bureau's environmental, health and safety management system by identifying and analyzing EHS aspects and impacts, developing plans and programs to minimize negative impacts and to periodically evaluate the results;
- 3.3 Integrate EHS considerations into all business decisions, including forecasting changes to the internal and external business environment and establishing direction to address anticipated changes.
- 3.4 Comply with all applicable Federal, state, and local environmental, health and safety laws and regulations, Executive Orders and other requirements;
- 3.5 Implement pollution prevention practices in order to realize overall improvements in environmental performance outcomes; and
- 3.6 Support all Bureau personnel at all levels in their responsibilities to prevent pollution to the environment and eliminate risks to human health and safety wherever and whenever possible.

Information in printed paper copies of this document and any document referred to herein is guaranteed valid for only 24 hours of the print date.

4.0 Document Revision History

Rev. #	Purpose of Revision	Eff. Date
1	Annual review and minor grammatical changes.	6/21/10
	Update review date	8/8/13

	Electrical Safety		Revision: Initial Release
	Document Control Number: 75W-04.0-08		Date: 6/24/2016
SAF Procedure	Responsible Organization: Facilities Division		
	Approved By: Marcelo Dijamco		Signature: Electronic

1.0 Purpose:

To ensure that all employees are protected from electrical shock, burns and any other potential electrical hazards in the workplace.

2.0 Scope:

The electrical safety program applies to all WCF employees and Contractors. The program covers electrical safety-related work practices and addresses electrical safety requirements for the workplace.

3.0 Definitions:

- 3.1 Arc Flash Hazard – A dangerous condition associated with the possible release of energy caused by an electric arc.
- 3.2 Arc rating - The maximum incident energy resistance demonstrated by a material (or a layered system of materials) prior to “breaking open or causing the onset of a second-degree burn injury. This rating is assigned to electrical protective clothing and is normally expressed in calories per square centimeter (cal/cm²).
- 3.3 Energized - Electrically connected to or having a source of voltage.
- 3.4 Exposed electrical parts – Capable of being inadvertently touched or suitably guarded, isolated, or insulated.
- 3.5 Flash Protection Boundary – A distance from exposed live parts within which a person could receive a second degree burn if an electrical arc flash were to occur.
- 3.6 Incident energy - The amount of energy impressed on a surface, a certain distance from the source, generated during an electrical arc event. One of the units used to measure incident energy is calories per square centimeter (cal/cm²).

- 3.7 Ground fault circuit interrupt (GFCI) - A device whose function is to interrupt the electric circuit to the load when a fault current to ground exceeds a predetermined value that is less than that required to operate the over-current protective device of the supply circuit.
- 3.8 Limited approach boundary - A shock protection boundary to be crossed by only qualified person (at a distance from a live part) which is not to be crossed by unqualified persons unless escorted by a qualified person.
- 3.9 Prohibited Approach Boundary – An approach limit distance from an exposed live part within which work is considered the same as making contact with the live part.
- 3.10 Qualified – A person who is trained and knowledgeable of the construction and operation of equipment or a specific work method and is trained to recognize and avoid electrical hazards that might be present with respect to that equipment or work method.
- 3.11 Restricted Approach Boundary – An approach limit distance from an exposed live part within which there is an increased risk of shock, due to electrical arc-over combined with inadvertent movement, for personnel working in close proximity to the live part.
- 3.12 Shock Hazard - A dangerous condition associated with the possible release of energy caused by contact or approach to live parts.
- 3.13 Unqualified –A person with little or no such training working on or near exposed energized parts. These employees have a reasonable risk of injury due to electrical shock, or other electrical hazards during their routine work duties.
- 3.14 Working near (live parts) - Any activity within a limited approach boundary.
- 3.15 Working on (live parts) - Coming in contact with live parts via tools, probes, test equipment, hands, feet, or other body parts regardless of the level of PPE worn.

4.0 Roles and Responsibilities:

4.1 EHS Branch shall:

- a. Implement and maintain a program and procedures;
- b. Evaluate the overall effectiveness of the electrical safety program on a periodic basis;
- c. Assist with the selection of the appropriate personal protective equipment.

4.2 Facilities Division shall:

- a. Coordinate electrical alterations to the facility and power outages.
- b. Ensure electrical equipment is labeled with the appropriate hazard warnings.

4.3 Electro-Machinist Shop Supervisor shall:

- a. Coordinate electrical alterations to production equipment.
- b. Ensure electrical equipment that supports production is labeled with appropriate hazard warnings.

4.4 Supervisors shall:

- a. Promote electrical safety awareness to all employees;
- b. Ensure employees comply with all provisions of the electrical safety program;
- c. Ensure employees receive training appropriate to their assigned electrical tasks;
- d. Ensure that the appropriate personal protective equipment and tools are used.

4.5 Qualified Employees shall:

- a. Follow the policy procedures described in this document;
- b. Follow Control of Hazardous Energy Lockout/Tagout (75W-04.0-07);
- c. Use the appropriate personal protective equipment and tools;
- d. Complete all training required relative to this program;
- e. Immediately report any concerns related to electrical safety to a supervisor or the EHS Branch.

4.6 Unqualified Employees shall:

- a. Not attempt to perform work on or near live parts;
- b. Be trained in the hazards of electricity and any related work practices that are necessary for their safety;
- c. Immediately report any concerns related to electrical safety to a supervisor or EHS Branch.

4.7 Contracting Officer's Representatives (CORs) shall:

- a. Ensure contractor organizations have a written electrical safety program that meets all of the requirements established by OSHA;

b. Where required by OSHA or the contractor's written plan, the COR shall ensure that contractor employees are trained;

c. Ensure training records are maintained and available for review by EHS Branch.

5.0 Training:

5.1 Employees must be trained and familiar with the safety-related work practices that pertain to their respective job assignments. Training will be provided when the employee is initially assigned to the job and refresher training will be provided every three years or when conditions change.

5.2 Qualified Employees:

a. All employees who face a risk of electrical shock or injury when they are working on or near exposed energized parts or parts that may become energized should receive training about the hazards associated with electricity. These include hazards of arc flash, arc blast, shock and electrocution and special precautions. At a minimum, qualified employees should be trained in and familiar with the following:

i. Skills and techniques necessary to distinguish exposed live parts from other parts of electrical equipment.

ii. Skills and techniques to determine the nominal voltage of exposed live parts.

iii. Approach distances specified in NFPA 70E Tables 130.4(c)(a) and 130.4(c)(b) and the corresponding voltages to which the qualified person will be exposed. Approach distances will be followed where feasible. If the approach distance requirements cannot be met, consult with a supervisor.

iv. Proper work practices, personal protective equipment (PPE), including arc-flash, insulating and shielding materials, and insulated tools and test equipment.

5.3 A person can be considered qualified with respect to certain equipment and methods but unqualified for others.

5.4 An employee who is undergoing on-the-job training and who, in the course of such training, has performed duties safely at his or her level of training and who is under the direct supervision of a qualified person shall be considered to be qualified.

5.5 Qualified employees shall be trained in Lockout/Tagout (LO/TO) procedures and shall adhere to the Control of Hazardous Energy Lockout/Tagout (75W-04.0-07) procedure.

5.6 Unqualified Employees:

- a. Shall be trained in and familiar with hazards associated with electrical energy, shock hazards, LO/TO and any electrically related safety practices that pertain to their respective job assignments.

6.0 Equipment Labeling:

- 6.1 Switchboards, panel boards, industrial control panels, and motor control centers should be field marked as needed and during equipment replacement or upgrading, to warn workers of potential electric arc flash hazards. BEP or any contracted company responsible for the replacement or upgrade shall label the equipment.
 - 6.2 The DANGER label shall be used when calculated incident energies are not presently available.
 - a. The DANGER label should remind a qualified employee who intends to open the equipment for analysis or work:
 - That an Electric arc flash hazard exists;
 - To turn off all power before opening;
 - To use appropriate personal protective equipment (PPE).
 - 6.3 Appendix C of the 2014 Arc Flash Analysis, and its successors, (found in the BEP Stationary Engineers Office or EHS Branch Office) contains appropriate flash hazard information and warnings for each piece of electrical equipment analyzed. The labels in Appendix C provide information for the Flash Protection Boundary, Limited Approach Distance, Restricted Approach Distance and the required electrical Personal Protective Equipment.
- ## **7.0 Working on or near live parts:**
- 7.1 Working on or near live parts is permissible for diagnostic testing and troubleshooting performed by qualified employees.
 - 7.2 An Electrical Work Permit is required when working on or near live parts operating at 50 volts to ground or higher. Request a copy of the Energized Electrical Work Permit form from the EHS Branch. The form must be completed and submitted for approval prior to undertaking such work.
 - 7.3 Live parts operating at less than 50 volts to ground and there is no increased exposure to electrical burns or to explosion due to electrical arcs; do not need to be de-energized.

7.4 Qualified employees shall not be assigned to work alone, except for replacing fuses, operating switches, or other operations that do not require the employee to contact energized high voltage conductors or energized parts of equipment, clearing trouble, or emergencies involving hazard to life or property.

7.5 Employees shall not reach blindly into areas which may contain energized parts.

7.6 Barricades or attendants should be used to prevent or limit employee access to work areas exposing employees to un-insulated energized conductors or circuit parts. Barricades must include a description of the hazard.

8.0 Steps to ensure conditions for electrically safe work:

8.1 The following steps should be followed to ensure electrically safe work conditions. These steps apply if a qualified employee is working within the limited approach boundary or if the employee interacts with equipment where the conductors or circuit parts are not exposed but an increased risk of injury from an arc flash hazard exists:

- a. Identify all sources of power to the equipment;
- b. Remove the load current, and then open the disconnecting devices for each power source;
- c. Where possible, visually verify that blades of disconnecting devices are fully open or that draw out-type circuit breakers are fully withdrawn;
- d. Apply lockout/tagout devices in accordance with Control of Hazardous Energy Lockout/Tagout (75W-04.0-07) procedure;
- e. Test each phase conductor or circuit part with an adequately rated voltage detector to verify that the equipment is de-energized;
- f. Properly ground all possible sources of induced voltage and stored electric energy before touching.

9.0 Flash Protection Boundary

9.1 For systems that are 600 volts or less the Flash Protection Boundary shall be a minimum of four feet.

9.2 For systems that are above 600 volts, the Flash Protection Boundary shall be determined through engineering analysis.

10.0 Portable Electrical Equipment and Extension Cords:

10.1 Extension cords may only be used as temporary wiring.

- 10.2 Extension cords must be protected from damage. Extension cords may not be run through windows or doors unless protected from damage, and then only on a temporary basis. Extension cords may not be run above ceilings or inside or through walls, ceilings or floors, and may not be fastened with staples or otherwise hung in such a fashion as to damage the outer jacket or insulation. Extension cords may not be attached to the "blue cage panels".
- 10.3 Extension cords used with grounding type equipment must contain an equipment-grounding conductor (i.e., the cord must accept a three-prong, or grounded, plug).
- 10.4 Portable cord and plug connected equipment and extension cords must be visually inspected before use on each shift for external defects such as loose parts, deformed and missing pins, or damage to outer jacket or insulation. Any defective cord or cord-and-plug-connected equipment must be removed from service and no person may use it until it is repaired and tested to ensure it is safe for use.
- 10.5 Attachment plugs and receptacles may not be connected or altered in any way that would interrupt the continuity of the equipment grounding conductor. Additionally, these devices may not be altered to allow the grounding pole to be inserted into current connector slots. Clipping the grounding prong from an electrical plug is prohibited.
- 10.6 All portable electric equipment and flexible cords used in highly conductive work locations, such as those with water or other conductive liquids, or in places where employees are likely to contact water or conductive liquids, must be approved for those locations.
- 10.7 Extension cords with a "pigtail" or "built in" GFCI shall be used in wet locations.
- 10.8 Employees' hands may not be wet when plugging and unplugging flexible cords and cord and plug connected equipment, if energized equipment is involved.
- 10.9 Energized plug and receptacle connections may be handled only with insulating protective equipment if the condition of the connection could provide a conducting path to the employee's hand (if, for example, a cord connector is wet from being immersed in water).
- 10.10 Test instruments and equipment used by qualified persons should be visually inspected for external defects and damage before the equipment is used. Test instruments and equipment and their accessories shall be rated for the circuits and equipment to which they will be connected and shall be designed for the environment in which they will be used.

11.0 General Electrical Safety:

- 11.1 Relocatable power strips (RPT) must be plugged directly into a wall outlet and should not be plugged in series with other RPT's or in conjunction with extension cords.
- 11.2 Electrical outlets located in damp or wet locations should be ground-fault circuit interrupter (GFCI) protected.
- 11.3 Cords must be protected by a cord protector when they extend into a walkway or other path of travel to avoid creating a trip hazard.
- 11.4 Portable space heaters are prohibited unless approved by the EHS Branch.
- 11.5 Electric appliances with current loads > 5 amps should be plugged directly into a wall receptacle.
- 11.6 Appliances must be plugged directly into a wall receptacle and are prohibited from use with an extension cord or power strip. This includes, but is not limited to, the following:
 - a. Coffee pot, double burner, microwave ovens and toaster ovens.
- 11.7 Electrical installations and safety requirements for temporary power must meet requirements found in 29 CFR 1926.400.

12.0 Personal Protective Equipment:

- 12.1 Personal Protective Equipment (PPE) should be used and selected for the specific parts of the body to be protected and the work to be performed. Electrical PPE should meet the following requirements:
 - a. Insulated rubber gloves with the proper voltage rating for circuits or equipment that is being worked on;
 - b. Electrically insulated leather footwear;
 - c. Clothing must be of non-conductive material;
 - d. Class E hard hats to reduce the danger of exposure to high voltage conductors;
 - e. Safety glasses with side shields and/or face shield wherever there is danger of injury from electric arcs or flashes or from flying objects resulting from electrical explosion.
- 12.2 Jewelry (rings, watches, necklaces, etc.) should be removed or sufficiently covered by a nonconductive insulating material, if they are to be worn.

- 12.3 Use insulated tools manufactured to ASTM F1505 standards.
- 12.4 PPE and tools should be inspected before each use to ensure they are in good condition. Any defective PPE or tools should be removed from service.
- 12.5 PPE shall be provided to and used by all employees working within the Flash Protection Boundary.
- 12.6 The specific protective equipment to be worn within the Flash Protection Boundary can be determined by:
- Referring to NFPA 70E Tables 130.7(C)(9) "Hazard/Risk Category Classifications and use of Rubber Insulating Gloves and Insulated and Insulating Hand Tools" to determine the hazard level of the task and whether or not voltage rated gloves are required;
 - Once the hazard level has been determined, the required PPE can be determined from NFPA 70E Table 130.7(C)(10) "Protective Clothing and Personal Protective Equipment (PPE)";
 - The following "Task Scenario and Resultant PPE" Table demonstrates how to use the Hazard/Risk Category Classification Table and PPE Table:


Task Performed per Table 130(c)(9)	Hazard Category	Insulated and Insulating Tools	Required PPE	Rubber Insulating Gloves
Work on energized electrical conductors and circuit parts, including voltage testing (panelboards or other equipment rated 240 V and below)	1	Yes	Arc-rated long sleeve shirt with arc-rated pants, safety glasses with side shields or safety goggles, arc-rated hard hat, arc-rated hard hat liners, voltage rated gloves, heavy duty leather gloves, leather work shoes, hearing protection	Yes
Remove or install CBs or fused switches (panelboards or other equipment rated > 240 V and up to 600V)	2	Yes	Safety glasses with side shields or safety goggles, hard hat, voltage rated gloves, heavy duty leather gloves, leather work shoes, cotton underwear, arc rated long sleeve shirt, arc rated pants, hearing protection	Yes

13.0 Related Documents

- OSHA 29 CFR 1910.331 through 1910.335
- OSHA 29 CFR 1910.147 The Control of Hazardous Energy
- NFPA 70 E: Standard for Electrical Safety in the Workplace
- 75W-04.0-07 Control of Hazardous Energy Lockout Tagout
- Energized Electrical Work Permit
- 2014 Arc Flash Analysis by BES Design/Build LLC.

14.0 Document Revision History

REVISION	PURPOSE OF REVISION	EFFECTIVE DATE

	Hot Work Permits		Revision: #1
	Document Control Number: 75W-04.0-02		Date: 6/23/17
SAF Procedure	Responsible Organization: WCF/Facilities Division		
	Approved By: Marcelo Dijamco	Signature: <electronically approved>	

1.0 Purpose:

The purpose of this procedure is to ensure that work involving burning, welding or similar operations capable of initiating fires or explosions is performed in a safe manner. This procedure describes the method for issuing and closing Hot Work Permits.

2.0 Scope:

This procedure applies to all persons performing Hot Work at the WCF.

This procedure does not apply to Hot Work performed in the designated areas within the Non-Production EM Shop; Production EM Shop, designated areas within the Building O&M shop; or cooking activities performed in the Canteen or outdoors in a manufactured device.

3.0 Definitions

3.1 Authority Having Jurisdiction (AHJ)

The AHJ is the organization, office or individual responsible for enforcing the requirements of a code or standard, or for approving equipment, materials, an installation, or a procedure. The Authority having Jurisdiction at the WCF is the Manager of the Facilities Division, or his designee.

The Authority having Jurisdiction at the WCF is the Manager of the Facilities Division, or his designee

3.2 Hot Work

Hot Work is work involving burning, welding, soldering, grinding or use of an open flame. Activities that produce a significant amount of dust that could affect the Fire Management System are also included.

3.3 Permit Authorizing Individual (PAI)

The PAI is the person designated by management to authorize Hot Work. The PAI is responsible for identifying hazards present or likely to be present and ensuring the protection of combustibles from ignition. The PAI will sign the line on Form 9279 reserved for the Safety Representative. The person performing the hot work cannot be the PAI.

- a. The PAI is a Safety Specialist assigned to the EHS Branch during times when a Safety Specialist is on duty.
- b. The PAI is a BEP Stationary Engineer when a BEP Stationary Engineer is on duty and an EHS Branch Safety Specialist is not on duty.
- c. The PAI is the O&M Contractor supervisor when there is no EHS Branch Safety Specialist or BEP Stationary Engineer on duty and the work is to be performed by the O&M Contractor or one of its subcontractors.
- d. The PAI is the Waste Treatment Contractor for work performed by Waste Treatment during times when no EHS Branch Safety Specialist or Stationary Engineer is on duty.
- e. The PAI is the Electro-Machinist (EM) Supervisor for work performed by Electro-Machinists when there is no EHS Branch Safety Specialist on duty.

4.0 Roles and Responsibilities:

- 4.1 The Facilities Division Manager shall:
 - a. Serve as the Authority Having Jurisdiction;
 - b. Designate persons to serve as the Permit Authorizing Individual.
- 4.2 The Environmental Health and Safety (EHS) Branch Manager shall:
 - a. Designate persons within the EHS Branch to serve as the Permit Authorizing Individual; and
 - b. Maintain this procedure.
- 4.3 The Permit Authorizing Individual shall:
 - a. Designate precautions to be followed in granting authorization to proceed with hot work.

- b. Ensure combustible and flammable materials are relocated at least 35 feet away from the worksite. Instruct Hot Work Operator to use listed or approved covers (welding pads, blankets, or curtains; metal shields, or non-combustible materials) to protect combustibles where relocation is impracticable.
- c. Ensure floors are not made of combustible material and that they are free from trash and rubbish.
- d. Ensure hot work permits are not issued for hot work in prohibited areas including the following:
 - 1.) In sprinklered buildings while such protection is impaired.
 - 2.) In the presence of explosive atmospheres, or in areas where explosive gases, vapors, liquids or dusts may form.
 - 3.) In areas not authorized by management.
- e. Ensure ducts and conveyors that may carry sparks are suitably protected or shut down.
- f. Instruct Hot Work Operator on alternative methods for communicating the presence of fire and sounding the alarm to the impacted area.
- g. Ensure fire watch personnel are trained and equipped with suitable extinguishers.
- h. Ensure that containers have been emptied and purged of contents before hot work is performed.

4.4 The Hot Work Operator shall:

- a) Fully comply with all federal environment, safety and health regulations, standards, and codes, as well as all BEP policies, procedures, and requirements.
- b) Have the pink copy of the permit at the work site in plain view.
- c) Inspect hot work equipment and ensure it is in safe working condition as designed by the manufacturer. If any hot work equipment is found to be incapable of reliable safe operation, the equipment shall be repaired by qualified personnel prior to its next use or be withdrawn from service.
- d) Provide adequate ventilation for the hot work operation.
- e) Cease hot work operations immediately if conditions change or if instructed by the PAI, BEP safety, police officer, or supervisor.

Note: All prescription safety glasses must have side shields. If prescription safety glasses do not have side shields then additional safety glasses or safety goggles shall be worn over the top of them.

5.0 Procedure

- 5.1** Persons desiring to perform Hot Work shall contact the PAI.

- 5.2** Upon receipt of a request for a Hot Work Permit, the PAI will proceed to the affected work area with BEP Form 9279, HOT WORK PERMIT.
- 5.3** The PAI will discuss the nature of the Hot Work, inspect the area, establish the criteria for performing the work safely, and complete the Permit accordingly. The 75W-04.0-02F Hot Work Permits Checklist shall be used while inspecting the area.
- 5.4** The O&M Contractor will determine which, if any, individual fire panels are affected and notate the determination on the Hot Work Permit. If a BEP Stationary Engineer is on duty, they will confirm the correct fire panel to be disabled. A BEP Stationary Engineer shall sign the Permit indicating concurrence on the O&M Contractor's determination.
- Note:** There is no assumption that all Hot Work requires a fire panel to be disabled.
- 5.5** The designated O&M Contractor will disable any affected fire panels.
- 5.6** The PAI will then provide the pink copy to the person in charge of the Hot Work.
- 5.7** When the Hot Work Permit has expired, the PAI will close out the Permit by inspecting the area and verifying that affected fire panels are returned to the proper status. The O&M Contractor will sign off on the Hot Work Permit affirming that the fire panels are enabled.
- 5.8** All closed permits will be returned to the EHS Branch.

6.0 Related Documents:

- 6.1** OSHA 3151-12R 2003 OSHA Publication *Personal Protective Equipment*
- 6.2** OSHA 29 CFR 1910.133 *Eye and face protection*
- 6.3** OSHA 29 CFR 1926.102 *Eye and face protection*
- 6.4** OSHA 29 CFR 1910 Subpart I Appendix B
- 6.5** NFPA 51B *Standard for Fire Prevention During Welding, Cutting, and Other Hot Work*
- 6.6** OSHA 29 CFR 1910.252 General requirements for Welding, Cutting, and Brazing
- 6.7** BEP Form 9279-WF HOT WORK PERMIT
- 6.8** 75W-04.0-02F Hot Work Permits Checklist

7.0 Document Revision History

REVISION	PURPOSE OF REVISION	EFFECTIVE DATE
1	Change document number. Signatory changed to Facilities Division Manager who is the Authority Having Jurisdiction (AHJ). Reformatting for consistency with other procedures. Edited Permit Authorizing Individual. Added roles and responsibilities for Hot Work Operator and PAI. Added related documents. More detail in Section 5 procedures.	




CHECKLIST FOR HOT WORK PERMITS

75W-04.0-02F

Date: _____

Signature of PAI: _____

Description of Hot Work:		
Location of Hot Work:		
Contractor Performing Work:		Satisfactory
Hot Work Checklist		Yes NA
1) This hot work operation can only be done in a non-welding shop area .		
2) All workers in the area have been made aware of any dangers or precautions.		
3) The fire watch has their own portable fire extinguisher that is task appropriate with regards to class and weight.		
4) The fire watch has been trained in the proper use of fire extinguishers.		
5) Hot work equipment is in safe operating condition. Equipment has all guards, handles, and safety devices in working condition.		
6) The surrounding floor area has been swept clean and free of any debris.		
7) All tanks & equipment previously containing any type of combustible, flammable or hazardous items such as chemicals, dust, fibers, gases, liquids and/or vapors have been flushed and purged.		
8) If cutting and/or welding is to be done on any metal door, wall, partition, ceiling and/or roofs; all combustibles on the other side have been moved away or covered so as not to be ignited by conduction, radiation, or hot sparks.		
9) Combustibles have been relocated 35 feet from the point of hot work operations or when not practical combustibles have been covered with fire proofed material (Welding/fire blankets) and all floor and wall openings within 35 feet have been tightly covered. Note: 35 feet is not necessary if it meets the requirements of item number 10 on this checklist.		
10) For hot work incapable of generating slag, sparks, spatter, or similar mobile sources of ignition capable of leaving the immediate area of the hot work: a) The immediate area has been cleared of combustible materials; or b) All combustibles have been covered with flame proofed material or are at a distance or area which he or she considers fire safe for the intended operation. Describe those distances and areas on the hot work permit.		
11) This hot work area has been shielded to contain any arc flashes, sparks, splattering, grinding and etc. thus protecting any nearby workers.		
12) If necessary, a metal bucket, containing sufficient water, is available for hot objects to be placed in.		
13) Insulation has been removed from any ducts, piping, vents and etc. before any hot work operations start.		
14) The building's fire sprinkler system is functioning properly and unimpaired. If not, the Hot Work Permit shall not be issued.		
Comments: Describe issues of concern		

	Transportation of Injured Employees		Revision: #1
	Document Control Number: 75W-04.0-03		Date: 7/11/16
SAF Procedure	Responsible Organization: WCF/EHS Branch		
	Approved By: Virginia Baldwin		Signature: <SIGNED>

1.0 PURPOSE AND SCOPE:

The purpose of this procedure is to establish the procedure for the transportation of injured or ill employees at the Bureau of Engraving and Printing (BEP) Western Currency Facility (WCF). This procedure applies to all BEP employees at the WCF.

2.0 POLICY:

It is the policy of the BEP WCF to provide care and assistance to ill or injured employees while on the premises, regardless of the origin of the illness or injury. All managers, supervisors and other employees shall be made aware of this policy. First Aid will be provided by the Health Unit staff when the Health Unit is open to provide service. First Aid will be provided by Police Officers when otherwise required. All First Aid providers have been trained on how to recognize when it is appropriate to request offsite emergency medical services.

Only the Police Communications Center (PCC) is authorized to make contact with the 911 Dispatcher for the City of Fort Worth Emergency Medical Services (EMS) provider.

3.0 GUIDANCE FOR WORK RELATED INJURIES:

- 3.1 When it appears that the employee needs treatment at a medical facility quickly and the untreated condition will cause the employee's condition to deteriorate, the PCC will dial 911 to contact the emergency services provider. The Fort Worth EMS provider will validate the condition and determine the mode of transportation. Selection of a treatment facility is done within the framework of the protocols used by the EMS provider.
- 3.2 Transportation, via taxi service, is available when an employee is incapacitated by a condition that requires treatment at a medical facility but speed is not an important factor. If a taxi service is utilized, vouchers are available from Police Communications.

- 3.3 Overtime pay can only be paid for time actually worked. The Comptroller General requires that overtime pay of an injured employee cease at the time the employee stops working the overtime.
- 3.4 Transportation back to the facility, if required, may be made by a taxi service. Employees may be reimbursed for the fee charged by the taxi service. The Supervisor may assist the employee in obtaining the proper forms for reimbursement.
- 3.5 The Bureau will not provide transportation for follow-up visits.
- 3.6 For non-work related injuries and illnesses, the Health Unit Staff, or the employee's Supervisor or another appropriate management official, may, at the employee's request, assist with making arrangements for transportation. However employees are responsible for all costs associated with non-work related injuries and illnesses. The employee's Supervisor, management official or Health Unit staff member, with the employee's consent, may notify a family member for assistance with transportation for non-emergency situations.

4.0 PROCEDURES TO FOLLOW DURING A MEDICAL EMERGENCY

- 4.1 If you see an employee hurt or ill you should:
1. Notify a Supervisor
 2. Contact PCC by dialing "0" or 3700 on an internal phone or by dialing (817) 847-3700 from an external phone.
 3. Stay with the injured employee until relieved.
- 4.2 If you are injured on the job you should refer to 75W-06.0-01 Injury and Illness Reporting.
- 4.3 Supervisors shall assist as necessary to ensure proper treatment is provided and then refer to 75W-06.0-01 Injury and Illness Reporting.
- 4.4 The Health Unit staff shall assess and treat the patient, and as appropriate, solicit assistance from the offsite EMS provider by contacting the PCC Police Communications. Additional duties are found in 75W-06.0-01 Injury and Illness Reporting.


5.0 RELATED DOCUMENTS:

75W-06.0-01 Injury and Illness Reporting

6.0 DOCUMENT REVISION HISTORY

REVISION	PURPOSE OF REVISION	EFFECTIVE DATE
1	Changed document number, signatory name; formatting changes	7/11/16

Users of printed copies are responsible for assuring current revision is referenced.

	Personal Protective Equipment (PPE)		Revision: #3
	Document Control Number: 75W-04.0-04		Date: 7/11/17
SAF Procedure	Responsible Organization: WCF/EHS Branch		
	Approved By: Virginia Baldwin	Signature: <electronically approved>	

1.0 Purpose:

The purpose of this procedure is to implement requirements contained in 29 CFR 1910.132 of Subpart I, *Personal Protective Equipment*. The Hazard Assessment and Personal Protective Equipment (PPE) Selection is performed using the non-mandatory guidelines found in Appendix B to Subpart I. This procedure also applies to the use of Hearing Protectors as required by Subpart G.

2.0 Scope:

This procedure applies to all Bureau of Engraving and Printing (BEP) employees at the Western Currency Facility (WCF).

OSHA places the burden on employers to assess the workplace and determine if hazards are present, select PPE, provide PPE and provide training. The existence of this procedure does not remove any regulatory burden placed on contractors by OSHA.

3.0 Responsibilities

3.1 Managers and Supervisors are ultimately responsible for ensuring that the safety and health programs are followed in their work areas. This requires frequent monitoring of the work area and reporting hazardous conditions to the Environmental, Health and Safety (EHS) Branch. Managers and Supervisors are responsible for the following:

- a) Provide appropriate PPE as required by 1910.132 and BEP policy, and making it available to employees.
- b) Ensure employees attend training on the proper use, care, and cleaning of PPE.
- c) Supervise staff to ensure that employees properly use and care for PPE.
- d) Seek assistance from the EHS Branch to evaluate hazards.
- e) Notify the EHS Branch when new hazards and new chemicals are introduced or when processes are added or changed that could affect the need for a new hazard assessment.
- f) Ensure defective or damaged equipment is immediately taken out of service and repaired or replaced.

- g) Take corrective action when PPE violations are noted.
- h) Ensure that new employees are issued PPE before commencement of work.

3.2 Employees: Employees are responsible for:

- a) Wearing PPE as required by the Hazard Assessment, Job Safety Analysis or when instructed to do so by a supervisor.
- b) Attending required training sessions.
- c) Caring for, cleaning, and maintaining PPE.
- d) Informing the supervisor of the need to repair or replace PPE.

3.3 EHS Branch Manager: The EHS Branch Manager is responsible for the development, implementation, and administration of the PPE Program. Specifically, the EHS Branch Manager is responsible for:

- a) Conducting workplace hazard assessments to determine the presence of hazards, which necessitate the use of PPE.
- b) Conducting workplace hazard reassessments if changes in the workplace or changes in types of PPE render previous assessments or training obsolete.
- c) Selecting the types of PPE that will protect the affected employee from the identified hazard in the hazard assessment.
- d) Communicating PPE selection decisions to each affected employee.
- e) Maintaining a written Certification of Hazard Assessment that identifies the workplace evaluated, the name of the person certifying that the evaluation has been performed, and the date of the assessment.
- f) Providing training.
- g) Maintaining training records.

4.0 PPE Acquisition:

4.1 Gloves are available through General Stores.

4.2 Non-prescription Safety Shoes: The BEP will pay \$110 per pair of safety shoes (except orthopedic shoes). Employees desiring higher priced shoes must pay the additional cost to the vendor at the time of the transaction. The BEP provides employees with two pairs of safety shoes initially and allows for additional shoes to replace worn pairs. Employees must exchange worn shoes for a replacement pair.

4.3 Prescription Safety Glasses: The BEP has established a \$40 dollar limit for the cost of frames for safety glasses. Employees who select frames that exceed the established dollar limit must pay the vendor for the additional cost at the time of the transaction. Employees will be issued only one pair of safety glasses per prescription. In addition to regular safety lenses made of glass or plastic, the BEP will cover the cost of the following lenses: (1) bifocals, trifocals, progressive and double segments when approved by the EHS Branch manager, (2) tinted lenses when approved by the EHS Branch Manager. Photochromic lenses are not approved.

4.4 Required use of a respirator: The EHS Branch will issue respiratory protection when use of a respirator is required for a given task. Contact the EHS Branch for assistance in obtaining clearance from the Health Unit, selection of a respirator, fit testing and training.

4.5 Voluntary use of a respirator: Voluntary use of respiratory protection is allowed with EHS approval. Contact the EHS Branch for assistance.

4.6 All PPE worn must be approved and/or issued by the EHS Branch.

5.0 Training:

5.1 Initial Training:

Each employee shall demonstrate an ability to use PPE and an understanding of the following prior to performing work requiring the use of PPE.

- a) When PPE is necessary.
- b) What PPE is necessary.
- c) How to properly put on and take off, adjust, and wear PPE.
- d) Limitations of the PPE.
- e) The proper care, maintenance, useful life and disposal of the PPE.

5.2 Refresher Training:

Refresher training is required when there are changes in the workplace that render previous training obsolete, changes in types of PPE that render previous training obsolete, or inadequacies in an affected employees' knowledge or use of PPE that indicates the employee has not retained the knowledge or skill to use PPE.

6.0 Recordkeeping Requirements:

6.1 Certification of Hazard Assessment:

These certifications have no expiration date. They are in effect until a new assessment is performed. The certification currently in effect is maintained in the EHS Branch files.

6.2 Training Records:

- a) **Initial Training:** The WCF PPE program has been in effect since 1994. Demonstration of employee knowledge and skills was documented at the beginning of the WCF PPE program. The demonstration of knowledge and skills for new hires is recorded during the new hire orientation process.
- b) **Refresher training:** The WCF requires refresher training in accordance with the limited requirements established by OSHA (see section 5.0). This training is mandatory and records are maintained in the EHS Branch office for at least 3 years or as required by OSHA regulation. The EHS Branch offers non-mandatory refresher training and also maintains these records in the EHS Branch office.


7.0 Related Documents

75W-05.0-02 Hearing Conservation Program

75W-05.0-03 Respiratory Protection Program

Document Revision History

Revision #	Purpose of Revision	Effective Date
1	Included Hearing Protection in the purpose; changes made to Responsibilities of Supervisors and Employees; new section added for acquisition of PPE	9/11/13
2	Change document number; change signatory name; add referenced documents; other minor edits for consistency	7/21/16
3	Add requirement for PPE to be issued or approved by EHS Branch and to have respiratory use approved by EHS.	7/11/17

	Machine Guarding		Revision: Initial Release
	Document Control Number: 75W-04.0-05		Date: 6/1/16
SAF Procedure	Responsible Organization: WCF/EHS Branch		
	Approved By: Virginia Baldwin	Signature: <SIGNED>	

1.0 Purpose

The purpose of machine guarding is to protect operators and other employees in the area from hazards. These hazards include but are not limited to point of operation, ingoing nip points, rotating parts, flying chips and sparks. Machine guards include covers, switches on access panels, light curtains or other devices that are designed to prevent the operator from intentional or unintentional exposure to a hazard.

2.0 Scope

This procedure applies to all machines operated by BEP employees and contractors at the WCF.

3.0 Roles and Responsibilities

3.1 Environmental Health and Safety (EHS) Branch shall:

- a. Conduct periodic inspections to identify unguarded equipment and recommend corrective actions.
- b. Review new equipment specifications to ensure appropriate machine guarding is included in the design.
- c. Inspect new equipment installation to ensure adequate guarding has been installed.
- d. Identify affected positions that require machine guarding training.
- e. Provide training materials upon request.
- f. Provide training on machine guarding. The training may be provided through TLMS or any other suitable means.
- g. Document training provided by the EHS.
- h. Advise the Supervisor of the section of any machine found without proper guards in place.

3.2 Supervisors shall:


- a. Ensure machine guards are in place during normal operation, after equipment maintenance and prior to start up.

- b. Ensure new employees are trained in the overall requirements of machine guarding prior to their initial assignment on a machine and after any modification to the machine or a change in work practice.
 - c. Ensure employees receive refresher training no less than once every three (3) years.
 - d. Not allow machines to operate without the proper guards in place.
 - e. Develop and approve written procedures for any task where it is necessary to remove a guard and then operate the machine for the purpose of cleaning or maintenance. The supervisor shall conduct and document training for each operator prior to the operator performing any task requiring a machine guard to be defeated while a machine is operated.
 - f. Advise the EHS Branch of any machine without proper guarding or inquire to the EHS Branch about necessary machine guarding if questions arise.
- 3.3 Contracting Officer Representatives (CORs) are responsible for:
- a. Ensuring that the contractor is compliant with all of the requirements found in 29 CFR 1910.212.
- 3.4 Operators shall:
- a. Receive machine guarding training.
 - b. Know the required machine guards for the machine being operated.
 - c. Ensure guards are in place prior to operation.
 - d. Cease operation of the machine if a guard is not in place or if a guard fails to operate.
 - e. Never defeat or bypass a guard or place any part of the body in an area that exposes the employee to a moving part.
- 3.5 Electro-Machinists shall:
- a. Return and secure guards to their normal operational status upon the completion of repairs.
 - b. If an unguarded machine is left unattended, affix the appropriate Lock-Out Tag-Out device in order to prohibit unauthorized startup of the equipment.
 - c. Inform the EHS Branch and the affected department Supervisor prior to removing or modifying any existing machine guard.

4.0 Related Documents:
29 CFR 1910.212

5.0 Document Revision History:

Revision#	Purpose of Revision	Effective Date

	Energy Control Program- Lockout/Tagout (LO/TO)		Revision: #1
	Document Control Number: 75W-04.0-07		Date: 2/11/17
Safety Program	Responsible Organization: WCF EHS		
	Approved By: Virginia Baldwin		Signature: <SIGNED>

1.0 Purpose:

The purpose is to establish an energy control program consisting of energy control procedures, employee training and periodic inspections to ensure that before any employee performs servicing or maintenance on a machine or equipment where the unexpected startup or release of energy could occur and cause injury, the machine or equipment shall be isolated from the energy source and rendered inoperative.

2.0 Scope:

This procedure applies to the servicing and maintenance of machines and equipment by employees in which the unexpected energization or start-up of the machines or release of stored energy could cause injury.

3.0 Definitions:

Affected employee: An affected employee is an employee whose job requires him/her to operate or use a machine or equipment on which servicing or maintenance is being performed under lockout or tagout, or whose job requires him/her to work in an area in which such servicing or maintenance is performed.

Authorized employee: An authorized employee is a person who locks out or tags out machines or equipment in order to perform servicing or maintenance on that equipment. An affected employee becomes an authorized employee when that employee's duties include performing servicing or maintenance.

4.0 Roles and Responsibilities:

- 4.1 The EHS Branch is responsible for:
- Maintaining 75W-04.0-07
 - Providing training to affected workers
 - Providing oversight of the overall energy control program.

- 4.2 Contractors who perform servicing or maintenance of machines and equipment must have a written program that fully complies with 29 CFR 1910.147.
- 4.3 The Authorized Employees' Supervisors are responsible for:
- a. Maintenance of the individual machine- specific energy control procedures and for retraining authorized employees whenever there is a change in their job assignment; a change in machines, equipment, or processes that present a new hazard; or when there is a change in the machine specific energy control procedures.
 - b. Performing periodic inspections at least annually of the individual energy control procedures. The periodic inspection shall be performed by an *authorized employee* other than the one(s) utilizing the energy control procedure being inspected.
 - c. Certifying that the periodic inspections have been performed. The certification shall identify the machine, or equipment on which the energy control procedure was being utilized, the date of the inspection, the employees included in the inspection, and the person performing the inspection.
 - d. Providing authorized employees' initial training in the recognition of applicable hazardous energy sources, the type and magnitude of energy available in the workplace, and the methods and means necessary for energy isolation and control.
 - e. Providing re-training to authorized employees in the event of a deviation from this procedure and 29 CFR 1910.147(c)(7)(iii)(B).
 - f. Ensuring authorized employees have received LO/TO training prior to beginning work assignment and when new procedures or revisions to the procedures are implemented.
 - g. Providing locks and tags to authorized employees.
- 4.4 Authorized Employees shall:
- a. Lock and tag out equipment anytime maintenance or servicing work could cause injury if the equipment suddenly becomes energized and/or begins to operate or move;
 - b. Notify affected employees prior to the initiation of LO/TO;
 - c. Follow equipment specific energy control procedures.

4.5 Affected Employees shall:

- a. Not attempt to start, energize, or use machine or equipment, upon initiation of LO/TO.

5.0 Exceptions to Lockout/Tagout

- 5.1 Servicing and/or maintenance which takes place during normal production operations, such as, minor tool changes and adjustments and other minor servicing activities, are not covered by LO/TO requirements if they are routine, repetitive, and integral to the use of the equipment for production, provided that the work is performed using alternative measures which provide effective protection. Examples of minor servicing activities include removal of certain types of paper jams, minor cleaning, lubricating and adjusting operations.
- 5.2 Where service or maintenance is being done on cord and plug connected equipment for which exposure to the hazards of unexpected re-energization of the equipment is controlled by the unplugging of the equipment from the energy source and by the plug being under the exclusive control of the employee performing the servicing or maintenance.
- 5.3 While troubleshooting an equipment failure, it is necessary to operate the equipment to ascertain the symptoms of the failure. LO/TO does not apply while troubleshooting. All appropriate personnel safety precautions must be observed while troubleshooting is in progress.

Under conditions such as troubleshooting equipment failure, where it is not suitable/practical to shut down the equipment, the authorized employee performing the work will restrict access to that area by barricading it off (cone, tape, chain, rope, etc.) and/or only allowing admittance to authorized and affected personnel needed in that area.

LO/TO applies once the failure has been determined and equipment repair is started if the repair work exposes an employee to a potential hazard.

- 5.4 Under conditions where equipment is identified as out-of-service for long term repair or replacement, a lock and Out-of-Service Tag will be placed on the equipment. Note: This designation eliminates equipment from the purview of the Control of Hazardous Energy requirements.

6.0 Equipment Isolation Procedure:

- 6.1 Maintenance

- a. When maintenance to a piece of equipment is necessary, the supervisor of that work area (or designee) must call the appropriate shop(s) to provide the necessary service(s).
- b. The authorized employee must verify that the equipment has been shut down prior to isolating any source of energy.
- c. The affected employees must be informed prior to isolating any energy source to the equipment.

6.2 Energy Isolation

- a. All energy sources that present a hazard, due to the nature or location of the work being performed, must be isolated, locked, and tagged by authorized employees.
- b. The authorized employee shall use the equipment specific LO/TO procedures to:
 - Identify hazards to which they may be exposed while performing the maintenance.
 - Identify isolation points/procedures for each hazard.
 - Identify the appropriate means of verifying that each hazard has been isolated from the work area.
- c. Disconnect all necessary/appropriate circuits from electrical sources. Devices, such as push-buttons, selector switches, and other control circuit type devices shall not be used as the sole means of disconnecting the equipment from the electrical energy sources. Mechanical disconnect switches are allowed.
- d. All capacitors shall be safely discharged and high capacity elements shall also be short-circuited and grounded.
- e. All steam, pneumatic, hydraulic, mechanical, potential or other energy sources shall be brought to a zero energy state (bleed, vent, drain, etc.) or physically restrained or blocked off to immobilize mechanical equipment following the machine-specific energy control procedures. Block, clamp or chain in place any mechanisms under tension or compression.

6.3 Verification of Energy Isolation

- a. The authorized employee shall activate the equipment operating controls, such as, push buttons, selector switches, valves, and electrical interlocks, or otherwise verify that the equipment cannot be inadvertently restarted; and

- b. Verify that all steam, pneumatic, hydraulic, mechanical, or other energy sources are brought to a zero energy state (bleed, vent, etc.) or physically restrained or blocked off to immobilize mechanical equipment following the machine-specific LO/TO procedures.

7.0 Lockout and Tagout Requirements

- 7.1 If an isolating device is capable of being locked, either by design or by the use of a temporary device installed to prevent operation; **both locks and tags are required** to be placed on each disconnecting/isolating device used to prevent inadvertent start-up or release of hazardous energy before servicing and/or maintenance can begin.

- a. LO/TO equipment specific procedures will be available.
- b. Lockout: After completing the isolation of all necessary/applicable energy sources in accordance with the machine specific LO/TO procedure, the authorized employee shall apply his/her own lock and tag to each isolating device used.
- c. Tagout: Use of a tagout does not provide the level of protection associated with a lock and tag. If an isolating device is incapable of being locked, efforts must be made to determine a lockable isolation point further upstream. If another lockable isolating device is not available or impractical, a tag in lieu of the standard lock and tag may be hung on the isolation device.

When a tag is used in lieu of lock and tag, the tag shall be affixed in a position that will be immediately obvious to anyone attempting to operate the device that it must not be operated.

The tag should be affixed directly to the isolating device. If it is not safe or possible to affix a tag to the isolating device, the tag shall be affixed as close as safely possible to the isolating device.

Use of a tag, in lieu of lock and tag, must be specifically authorized by the EM Shop Supervisor. This authorization must be obtained for each isolating device where only a tag is to be used.

- d. Multiple (Group) Lockout/Tagout: When more than one authorized person is going to work on the same equipment, each authorized person must install his/her locks and personalized tag(s) on the lockout device(s). Multiple lockout/tagouts will prevent the control from being operated or activated until all locks and tags are removed.

- e. **Shift Change Coordination:** When authorized employees complete their shift, they cannot remove their locks and tags until their relief or their immediate supervisor installs their personalized (or shop) locks and tags on the lockout devices. If the incoming employee cannot be located, then the shop supervisor (or designee) must place a shop lock to the isolating device(s).
- f. **Non BEP Personnel (Contractors):** Whenever contractor personnel are engaged in activities covered by the scope and application of the LO/TO program, the Bureau and the contractor shall inform each other of their respective procedures.

7.2 Lockout/Tagout Supply:

- a. A lock with a (RED) body is the only type of lock to be used for authorized LO/TO employees. This lock may not be used for any other purpose (such as securing toolboxes or lockers).
- b. In addition to locks and tags, other hardware such as: chains, wedges, key blocks, adapter pins, self-locking fasteners, valve covers, hasps, etc., shall be provided and used, as applicable, for isolating, securing or blocking of machines or equipment from energy sources.
- c. **Lockout Device Assignments:**
Authorized Employee Lock – (RED)
Shop/Locks – (RED)

7.3 Ownership & Location of Devices:

- a. Each authorized shop, where the need to lockout equipment may be necessary will maintain an inventory of locks, tags, and keys.
- b. Every authorized maintenance employee will be issued personalized tags, authorized padlocks, and keys that will be used only to apply isolating devices when performing service or maintenance activities on BEP equipment/machinery.

7.4 Removal of Locks and Tags: Locks and tags can only be removed after all maintenance services have been completed or a transfer of locks has occurred. Locks and tags must never be removed by anyone but the authorized person who applied the lock/tag, except in an emergency or under unusual circumstances.

- a. If it becomes necessary to remove a lock or tag when the authorized employee (owner) is not available, the lock/tag owner's supervisor

must be notified. The Supervisor may remove a lock/tag only after each one of the following steps has been taken:

- i. It has been verified that the lock/tag owner is not at the work site;
- ii. Attempts have been made to contact the lock/tag owner;
- iii. A determination has been made as to why the lock/tag was applied;
- iv. A shop Supervisor has inspected the equipment and determined that the removal of the lock/tag does not create a safety hazard;
- v. Provisions have been made to notify the lock/tag owner of the removal BEFORE the employee returns to resume work on the equipment (if previous attempts were unsuccessful).

8.0 Restoration of Equipment

8.1 Electrical: After the servicing and/or maintenance are complete and the equipment is ready for normal production operations, the authorized employee shall:

- a. Verify that circuits and equipment are in condition to energize. Before circuits and equipment are re-energized, appropriate tests and visual inspections shall be conducted to verify that all tools, mechanical restraints and electrical jumpers, shorts, and grounds have been removed, so that the circuits and equipment are in a condition to be safely energized.
- b. Verify that employees are clear of circuits and equipment. Before circuits and equipment are re-energized, all affected employees shall be notified to stay clear of the circuits and equipment. There shall also be a visual verification that all employees are in the clear.
- c. Remove each lockout/tagout device from each disconnecting means/isolating device (energy source).
- d. Operate the energy isolating devices to restore energy to the machine(s) or equipment.
- e. Observe and follow the related electrical safety requirements in 75W-04.0-08 Electrical Safety.

8.2 Other Types of Energy Sources: After the servicing and/or maintenance are complete and the equipment is ready for normal production operations, the authorized employee shall:

- a. Visually check the area around the machine(s) or equipment to ensure that no one is exposed to danger;
- b. Remove all LO/TO devices from the mechanical, pneumatic, hydraulic and all other energy sources; remove all tools from the machine(s) or equipment; reinstall guards and ensure all employees are in the clear; and
- c. Operate the energy isolating devices to restore energy to the machine(s) or equipment.

9.0 Periodic Inspections


- 9.1 Periodic Inspections will be performed by an authorized employee (or employees) at least annually to verify that the procedures are adequate and being properly applied. The authorized employee(s) performing the inspection will be other than the one(s) utilizing the energy control procedure being inspected.
- 9.2 Annual certification of the periodic inspection will be in accordance with 29 CFR 1910.147(c)(6)(ii) and will specify the following:
 - a. The machine or equipment on which the energy control procedure was used;
 - b. The date of the inspection;
 - c. The names of the employee(s) included in the inspection; and
 - d. The name(s) of the person(s) who performed the inspection.

10.0 Reference Documents

29 CFR 1910.147

11.0 Document Revision History

REVISION	PURPOSE OF REVISION	EFFECTIVE DATE
1	Initial release	2/1/17

	Sling Safety		Revision: Initial Release
	Document Control Number: 75W-04.0-06		Date: 5/31/16
SAF Procedure	Responsible Organization: WCF/Facilities Division		
	Approved By: Marcelo Dijamco	Signature: <SIGNED>	

1.0 Purpose:

The purpose of this procedure is to establish a sling safety program. It applies to the use of slings in conjunction with other material handling equipment for the movement of material by hoisting.

2.0 Scope:

This procedure applies to the use of slings by BEP employees and contractors.

3.0 Responsibilities:

- 3.1 Contractors are responsible for adhering to all requirements placed upon by them by OSHA as found in 29 CFR 1910.184 Slings. Contractors are required to make available upon request of the COR or the WCF EHS Branch, all program documents related to this procedure.
- 3.2 The BEP Contracting Officer's Representative is responsible for ensuring the contractor has a procedure in place that ensures compliance with OSHA requirements.
- 3.3 The EHS Branch Manager is responsible for performing audits and inspections in the workplace to verify that users of slings are in compliance with OSHA requirements and this procedure.
- 3.4 BEP Supervisors are responsible for ensuring that:
 - Employees who use slings have been trained;
 - Training of BEP employees shall be documented;
 - Ensuring that all slings are identified;
 - Ensuring that slings are inspected in accordance with this procedure;
 - Ensuring that inspection records are maintained;
 - Ensuring that properly rated slings are available; and
 - Ensuring that defective slings are removed from service.
- 3.5 Employees are responsible for:
 - 3.5.1 Visually inspecting slings each day before use;
 - 3.5.2 Attending training;

- 3.5.3 Adhering to safe work practices; and
- 3.5.4 Removing defective slings from service.

4.0 Procedure for BEP employees:

- 4.1 Each day before use, the sling and all fastenings and attachments shall be inspected for damage or defects. Damaged or defective slings shall be immediately removed from service. No record is required for this inspection.
- 4.2 Alloy steel chain slings: In addition to the inspection in 4.1, each alloy steel chain sling shall be thoroughly inspected by a competent person at least every twelve months. The results of the inspection shall be documented. The sling shall be inspected for wear, defective welds, deformation and increase in length.
- 4.3 Wire rope slings: In addition to the inspection requirements in 4.1, wire rope slings shall be inspected by a competent person at least every 12 months. The inspection shall be performed using the attached inspection document.
- 4.4 Synthetic web slings: In addition to the inspection requirements in 4.1, wire rope slings shall be inspected by a competent person at least every 12 months. The inspection shall be performed using the attached inspection document.
- 4.5 Employees who use slings shall be trained to become competent to perform inspections required by 4.1. Training records shall be maintained.
- 4.6 Employees who are designated to perform annual inspections shall be trained to perform the annual inspection. Training records shall be maintained.

5.0 Procedure for Contractors

- 5.1 Each day before use, the sling and all fastenings and attachments shall be inspected for damage or defects. Damaged or defective slings shall be immediately removed from service.
- 5.2 Use the criteria in 29 CFR 1910.184(e) to identify, inspect and proof test alloy steel chain slings.
- 5.3 Use the criteria in 29 CFR 1910.184 to identify, inspect and test slings other than alloy steel chain slings.
- 5.4 Establish a written procedure that complies with 29 CFR 1910.184. The procedure shall identify inspection and training requirements, and shall specify what records that must be generated and maintained.

6.0 Training:


- 6.1 Attendance at training sessions shall be documented.

7.0 Recordkeeping:

- 7.1 Records shall be maintained by the department that uses the sling.

8.0 Document Revision History:

Revision	Purpose of Revision	Effective Date

	Fire Protection System Impairment		Revision: Initial Release
	Document Control Number: 75W-04.0-09		Date: 5/4/16
SAF Procedure	Responsible Organization: WCF/Facilities Division		
	Approved By: Marcelo Dijamco	Signature: <SIGNED>	

1.0 Purpose

The purpose of this procedure is to ensure that the Manager, Facilities Division, or designee, has been notified of any fire protection system impairment, and that appropriate compensatory measures are in place for the duration of the impairment.

2.0 Scope

This procedure applies to all impairments to the fire protection system, excluding impairments approved as a part of a Hot Work Permit granted in accordance with 75W-04.0-02.

This procedure does not apply to Hot Work performed in the designated areas within the Non-Production EM Shop; Production EM Shop, designated areas within the Building O&M shop; or cooking activities performed outdoors in a manufactured device.

3.0 Definitions

3.1 Authority Having Jurisdiction (AHJ)

The AHJ is the organization, office or individual responsible for enforcing the requirements of a code or standard, or for approving equipment, materials, an installation, or a procedure. The AHJ at the WCF is the Manager, Facilities Division.

3.2 Fire Protection System

Devices, equipment and systems or combinations of systems used to detect a fire, activate an alarm, extinguish or control a fire, control or manage smoke and products of a fire or any combination thereof.

3.3 Hot Work

Hot Work is work involving burning, welding, soldering, grinding or use of an open flame. Activities that produce a significant amount

of dust that could affect the Fire Management System are also included.

3.4 Fire Protection System Impairment

An impairment is any planned or unplanned impairment to the fire protection system.

3.5 Impairment

An impairment is any decrease to the ability of the fire protection system to detect a fire, activate an alarm, extinguish or control a fire, control or manage smoke and products of a fire or any combination thereof.

3.6 Impairment Coordinator

The Impairment Coordinator is the person responsible for the maintenance of the fire protection system. At the WCF, the Impairment Coordinator is the Facilities Support Branch Manager.

4.0 Roles and Responsibilities

4.1 The Manager, Facilities Division shall:

- a. Serve as the Authority Having Jurisdiction; and
- b. Designate persons to serve as the impairment coordinator.

4.2 The Environmental Health & Safety (EHS) Branch Manager shall:

- a. Maintain this procedure.

4.3 The Impairment Coordinator shall:

- a. Maintain a record of all fire protection system impairments. Records shall be maintained for 3 years.

5.0 Procedure

5.1 A tag obtained from the EHS Branch shall be affixed in a place determined by the Impairment Coordinator to indicate that a system, or portion thereof, has been removed from service.

5.2 As determined by the Impairment Coordinator, the tag shall be posted at each fire department connection, system control valve, fire alarm control unit, fire alarm annunciator and fire command center indicating which system, or part thereof, has been removed from service.

5.3 Preplanned impairments shall be authorized by the Impairment Coordinator. Using the Impairment Worksheet in Attachment A, the Impairment Coordinator shall verify the following:

- a. The extent and expected duration of the impairment;
- b. The areas involved have been inspected and the increased risk has been determined;
- c. Recommendations for appropriate compensatory measures have been identified;
- d. The AHJ or designee has approved in writing any impairment expected to last more than 24 hours;
- e. The Supervisors of the affected areas have been notified;
- f. The Police Communications Center has been notified; and
- g. The EHS Branch has been notified.

5.4 When restoring fire protection systems to service, the Impairment Coordinator shall verify the following using the Impairment Worksheet in Attachment A:

- a. Necessary inspections and tests have been conducted to verify that affected systems are operational;
- b. Affected Supervisors have been informed that the system has been restored;
- c. The AHJ has been informed;
- d. The EHS Branch has been informed;
- e. The Police Communications Center has been informed; and
- f. The tags have been removed.

5.5 Impairments lasting less than 24 hours may be approved by the Impairment Coordinator.


6.0 Document Revision History

REVISION	PURPOSE OF REVISION	EFFECTIVE DATE

Attachment A

Impairment Worksheet

Core Information	
Today's date	
Type of system impaired	
Extent of impairment	
Reason for impairment	
Date impairment to begin	
Estimated date of completion	
Persons conducting work	
Firewatch required?	
If yes, number of persons	
Reminders	
Area inspected and risks determined?	
Prohibitions involved?	<input type="checkbox"/> No Hot work <input type="checkbox"/> No flammable dispensing <input type="checkbox"/> Other identify
Building evacuated?	
Impairment tag issued?	
Notifications	
AHJ signature for impairment extending beyond 24 hours.	<input type="checkbox"/> Yes <input type="checkbox"/> No
AHJ: _____	
Have supervisors in affected area been notified of the impairment?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Has the EHS Branch been notified of the impairment?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Has the Police Communications Center been notified of the impairment?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Restoration	
Has the affected system been inspected and tested operational?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Has the impairment tag been removed?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Has the EHS Branch been notified of the restoration?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Has the Police Communications Center been notified of the restoration?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Have the area supervisors been notified of the restoration?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Has the AHJ been notified of the restoration?	<input type="checkbox"/> Yes <input type="checkbox"/> No

	Permit Required Confined Spaces		Revision: Initial Release
	Document Control Number: 75W-04.0-10		Date: 5/10/16
SAF Procedure	Responsible Organization: WCF/Facilities Division		
	Approved By: Marcelo Dijamco	Signature: <SIGNED>	

1.0 PURPOSE

This document serves as the Western Currency Facility's (WCF) Bureau of Engraving and Printing (BEP) written Permit Required Confined Space (PRCS) program as required by the Occupational Safety and Health Administration (OSHA). It is designed to protect employees and contractors from the hazards related to entry into a PRCS. This procedure establishes the minimum guidelines for the safe entry of PRCS.

2.0 TERMS AND DEFINITIONS

2.1 Confined Space: A space that meets ALL of the following conditions:

- a. A space that is large enough and so configured that an employee can bodily enter and perform assigned work.
- b. The space has limited or restricted means for entry or exit (for example, tanks, vessels, silos, storage bins, hoppers, vaults, and pits are spaces that may have limited means of entry.)
- c. The space is not designed for continuous employee occupancy.

2.2 Permit-Required Confined Space (PRCS): A confined space that has one or more of the following characteristics:

- a. Contains or has a known potential to contain a hazardous atmosphere;
- b. Contains a material with the potential for engulfment of an entrant;
- c. Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls, or a floor which slopes downward and tapers to a smaller cross-section; or
- d. Contains any other recognized serious safety or health hazard.

2.3 Entry: The act by which a person intentionally passes through the opening into a permit required confined space. The entrant is considered to have entered as soon as any part of the entrant's body breaks the plane of an opening into the space.

3.0 REFERENCE DOCUMENTS

3.1 Confined Space Entry Permit form (available in the EHS Branch)

4.0 RESPONSIBILITY

4.1 Environmental Health and Safety Branch (EHS) shall:

- a. Evaluate the workplace to determine if any confined spaces are PRCS;
- b. Ensure that required signs are posted at the entrances of PRCS;
- c. Provide assessment of permit required confined spaces and dictate the conditions for entry for all BEP employees and contractors;
- d. Provide training to Contract Officer's Representatives (CORs) on the elements of this procedure as needed;
- e. Review the PRCS program annually, using the cancelled entry permits. The program will be evaluated and revised as necessary.
- f. Review construction/renovation specifications, drawings, and safety plans. The EHS Branch shall:
 - Inform contractor that the WCF contains PRCS and the space may only be entered through compliance with a PRCS program that meets the requirements of 29 CFR 1910.146;
 - Apprise the contractor of the reason that the space to be entered is a PRCS;
 - Apprise the contractor of the precautions that the WCF has in place for protection of nearby employees;
 - Coordinate entry with the contractor to prevent employees of one employer from endangering the employees of the other employer.

4.2 BEP employees:

- a. SHALL NOT enter into a PRCS prior to completion of all training required by 29 CFR 1910.146 and training on this procedure.

4.3 BEP COR whose contractor needs entry to a PRCS shall ensure that the contractor:

- a. Complies with all requirements of this procedure;
- b. Notifies EHS of request to enter a PRCS a minimum of 30 minutes prior to entry for preventive maintenance activities;
- c. Has a written PRCS procedure that meets all OSHA requirements;
- d. Informs EHS of the permit space procedure that the contractor will follow and of any hazards confronted or created in permit spaces through a debriefing;
- e. Obtains information regarding PRCS hazards and entry operations from the WCF;
- f. Coordinates entry operations with the WCF;
- g. Submits a site specific safety plan to EHS through the COR at least three (3) business days prior to the start of the entry;
- h. Arranges prior to entry, where necessary, for emergency rescue of occupants per the requirements of 29 CFR 1910.146(k);

- i. Provides the necessary equipment, including atmospheric testing equipment, to safely enter and rescue occupants from the permit required confined space;
- j. Certifies that their employees are properly trained in all aspects (e.g., entrants, attendants, and rescue) of PRCS entry required by 29 CFR 1910.146.

5.0 TRAINING

- 5.1** Training is required for all persons in charge of PRCS entry, all entrants to PRCS, safety attendants, and rescue personnel per 29 CFR 1910.146(g). This training shall be provided by the employee's employer.

6.0 PROCEDURE

6.1 PERMIT REQUIRED CONFINED SPACE IDENTIFICATION

- a. A sign stating "DANGER – PERMIT REQUIRED CONFINED SPACE – DO NOT ENTER" or similar designation shall be posted in the immediate vicinity of all known PRCS. Continued surveillance by EHS for unidentified PRCS shall be an ongoing process.
- b. If an employee discovers an area believed to be an unidentified PRCS, EHS shall be contacted before entering.
- c. Manholes are considered to be PRCS. All sections of this procedure shall apply when a manhole is to be entered.

6.2 PERMIT REQUIRED CONFINED SPACE PERMIT

- a. EHS shall be contacted for each PRCS entry. An entry permit shall be established using the Confined Space Entry Permit form and posted (by the entry Supervisor). It shall include, at a minimum, all of the information found in 29 CFR 1910.146(f).
- b. The time limit for a PRCS Entry Permit shall be consistent with the amount of time to complete the work inside the space and not go beyond one shift.
- c. If the work is to continue beyond one shift, EHS shall be contacted and arrangements shall be made for a new PRCS Entry Permit to be issued for the duration of the work.
- d. Final entry permit approvals shall be signed by a representative of EHS to ensure that all actions required for safe entry have been performed.
- e. The person in charge of the entry shall certify that personnel entering the space are properly trained and certified, and have all the necessary equipment before proceeding with the entry of a PRCS. Also, the person in charge shall certify that all the actions required for safe entry have been performed before posting the permit and giving permission to enter the PRCS to perform the assigned and approved task.
- f. When there is a potential for an atmospheric hazard, the internal atmosphere shall be tested with a calibrated direct-reading instrument, for oxygen content, flammable gases and vapors, and potential toxic

air contaminants, in that order. Air testing shall comply with all requirements of 29 CFR 1910.146. PRCS atmospheres shall be monitored a minimum of once every eight hours.


- g. During entry, the authorized individual or the person in charge of the entry shall ensure that periodic checks are performed to assure that conditions remain consistent with the terms of the permit. If a hazardous atmosphere is detected within the PRCS while any employee is inside the space, all employees must immediately evacuate.
- h. There must always be at least one attendant present on every PRCS entry.
- i. All PRCS entry permits must have an approved rescue plan either included with or on the permit.
- j. When work in the PRCS is completed, the person in charge of entry shall immediately take the following actions in order to terminate the permit:
 - Ensure that all personnel and any unnecessary tools and equipment are out of the PRCS.
 - Close all access openings if applicable.
 - Remove the entry permit and provide a verbal or written report to EHS. The report shall highlight any problems encountered during the entry. If written, the original entry permit shall accompany the report.
- k. EHS may terminate PRCS operations at any time.

7.0 RECORDS

- 7.1 PRCS permits shall be retained by EHS for a period of one year beyond completion of the work.

8.0 Document Revision History

REVISION	PURPOSE OF REVISION	EFFECTIVE DATE

	Powered Industrial Trucks (PITs)		Revision: Initial Release
	Document Control Number: 75W-04.0-11		Date: 6/6/16
SAF Procedure	Responsible Organization: Office of Currency Manufacturing		
	Approved By: Ron Voelker	Signature: <SIGNED>	

1.0 Purpose:

The purpose of this procedure is to communicate BEP's requirements for the safe operation of Powered Industrial Trucks (PIT) at the WCF.

2.0 Scope:

This procedure applies to all Powered Industrial Truck (PIT) operators at the WCF.

3.0 Definition:

OSHA defines a Powered Industrial Truck or PIT as a mobile, power-propelled truck used to carry, push, pull, lift, stack or tier materials; commonly known as forklifts, pallet trucks, rider trucks, fork trucks, or lift trucks.

4.0 Roles and Responsibilities:

4.1 WCF EHS Branch shall:

- a. Collect and file evidence for completion of initial external hands-on training by all PIT Operators.
- b. Provide refresher training and certify that each operator is evaluated and has received refresher training at least once every three years;
- c. Provide refresher training and evaluation whenever an operator demonstrates a deficiency in the safe operation of the PIT, such as, being involved in an accident, observed operating the PIT in an unsafe manner or by manager request.
- d. Maintain a list of authorized PIT operators.

4.2 Supervisors shall:

- a. Identify employees whose job requirements include operating a PIT and provide their names to the EHS Branch for inclusion in the refresher training program;
- b. Make arrangements for PIT Operators to complete the initial external hands-on training;
- c. Monitor employee work practices and ensure safe operation of the PITs in their Sections;
- d. Take the following actions for any PIT found defective from the daily check:
 - i. For any forklifts that are in need of repair, are defective or in any way unsafe, the truck shall be tagged and taken out of service until it has been restored to safe operating condition. All repairs shall be made by authorized personnel provided by the WCF.
 - ii. For pallet jacks that are in need of repair, are defective or in any way unsafe, they must be removed from service. The Supervisor will make arrangements for basic repairs and servicing through the EM Shop. If the EM Shop is unable to provide servicing, the repairs shall be made by authorized personnel provided by the WCF.
- e. Ensure that all PIT Operators have PIT refresher training, evaluation and certification at least every three years and that they are allowed the time to complete the refresher training.

4.3 PIT operators shall:

- a. Complete an initial PIT training course from an external provider and provide a certificate of completion to the EHS Branch. The Operator must receive a positive evaluation by their Manager or Supervisor.
- b. Complete refresher training and evaluation by the EHS Branch and the employee's manager or supervisor at a minimum of once every three years in order to maintain a current certification to operate PITs at the WCF;
- c. Arrange for refresher training prior to three years from the date of their previous refresher;
- d. Perform their daily pre-operative checks before placing any PIT into service. Where industrial trucks are used on a round-the-clock basis, they shall be examined before each shift;
- e. Only operate EE or EX Type PITS while working in the Flammable Liquids Storage Building (FLSB);

- f. Operate the PIT in accordance with all safety requirements including but not limited to:
- i. Wearing the safety belts if vehicle is so equipped;
 - ii. Observing a safe speed limit;
 - iii. Yielding right of way to pedestrian traffic;
 - iv. Maintaining approximately three vehicle lengths behind a PIT traveling in the same direction;
 - v. Traveling with the load trailing when the load being carried obstructs forward view. The driver must look in the direction of and keep a clear view of the path of travel. Only safely-arranged loads that are within the rated capacity of the PIT shall be handled;
 - vi. Ensuring that loads do not drag on floor;
 - vii. Ensuring that a loaded PIT is not used to push a second load;
 - viii. Sounding the vehicle's horn when passing entrances of doors, elevators, intersections, blind spots, aisles, and other dangerous passing locations where vision is obstructed;
 - ix. Ensuring the audible back-up alarm is activated when the PIT is moving in reverse;
 - x. Not using two-way radios, cell phones, or other communication devices while operating PIT;
 - xi. Approaching and entering elevators slowly with the load end facing forward. Once on the elevator, the PIT controls shall be neutralized, power shut off, and the brakes set. Before exiting the elevator, the operator shall sound the PIT's horn and the audible back-up alarm to alert all pedestrians;
 - xii. Not driving up to anyone standing in front of a bench or other fixed object;
 - xiii. Not allowing employees to stand or pass under the elevated portion of any PIT, whether loaded or empty;
 - xiv. Not allowing riders on PITs;
 - xv. Wearing proper hearing protection in hearing protection required areas;


- xvi. Lowering the load, neutralizing controls and setting brakes while dismounted and within 25 feet or more away from the PIT;
 - xvii. Lowering the load, neutralizing controls, shutting off power, removing the key and setting brakes while dismounted and 25 feet or more away from the PIT;
 - xviii. Wear Safety Shoes while operating PITs.
- g. Inspect the forklift-mounted fire extinguishers and ensure that:
- i. Extinguishers are in their designated location and are secured properly with appropriate brackets;
 - ii. Extinguishers are accessible and visible;
 - iii. Extinguishers are full as determined by lifting to estimate its weight, or by the gage, and examined for obvious physical damage such as corrosion, leakage, and clogged nozzles.
- h. Battery charging of PIT's
- i. Charging or changing of all batteries for PIT must be done by qualified personnel in a designated area only.

5.0 Related Documents

- a. OSHA 29 CFR 1910.178
- b. 75W-07.0-01 Offloading Drums and Totes Containing Flammable Materials
- c. 75W-07.0-02 Storage, Dispensing and Transfer Procedure for Flammable Liquids
- d. Module 148 Powered Industrial Trucks Refresher
- e. Module 148.1 Operating PITS in FLSR
- f. Module 154 Fork Mounted Hoppers

6.0 Document Revision History

REVISION	PURPOSE OF REVISION	EFFECTIVE DATE

	Aerial Lifts and Scissor Lifts		Revision: Initial Release
	Document Control Number: 75W-04.0-12		Date: 3/8/16
Safety Procedure	Responsible Organization: WCF/Facilities Division		
	Approved By: Marcelo Dijamco		Signature: <SIGNED>

1.0 Purpose:

The purpose of this procedure is to establish safe work practices related to the use of aerial lifts and scissor lifts at the Western Currency Facility (WCF). The use of aerial and scissor lifts is routine for the users, but the use of the lift in a given location is not routine for other employees in the area. There is a potential for moving equipment to strike a worker or fixed structure, to temporarily obstruct an egress path, and for objects or a worker to fall from the lift.

2.0 Scope:

This procedure applies to the operation of aerial and scissor lifts at the WCF.

3.0 Definitions:

- 3.1 Personal Fall Arrest System means a system used to arrest an employee in a fall. It consists of an anchorage, connectors, body harness and may include a lanyard, deceleration device, lifeline or suitable combination of these.
- 3.2 Aerial Lift means any vehicle mounted device used to elevate personnel, including extensible boom platforms, aerial ladders, articulating boom platforms, vertical towers, and any combination of these. (A scissor lift is a mobile scaffold and is not included in this definition).
- 3.3 Mobile scaffold means a powered or unpowered, portable, caster or wheel-mounted supported scaffold. (A scissor lift is a mobile scaffold).
- 3.4 Anchorage means a secure point of attachment for lifelines, lanyards or deceleration devices. An anchorage point must meet the criteria of OSHA 29 CFR 1926.502(d).
- 3.5 Spotter means a worker who has the sole duty to assist in the safe movement of an aerial or scissor lift. The spotter is not the person driving, riding on or operating the lift.

3.6 Lift(s) means an aerial or a scissor lift or both.

3.7 Barricade means any obstruction intended to deter the passage of persons or vehicles. Examples include but are not limited to rigid barriers, cones, ropes, chains, and yellow or red safety tape.

4.0 Roles and Responsibilities:

4.1 The EHS Branch is responsible for maintaining this procedure.

4.2 Contracting Officer's Representative (COR) is responsible for:

- Ensuring that operators of aerial and scissor lifts are trained in the proper use of a personal fall arrest system and are in compliance with safe work practices in this procedure.
- Notifying the supervisors of workers affected by the presence of the lift in the supervisor's work area.

4.3 BEP Supervisors are responsible for:

- Ensuring that BEP operators are trained in the proper use of a personal fall arrest system, and are in compliance with the applicable safe work practices in this procedure.
- Ensuring employees do not violate the barricades established by the lift operators.
- Establishing appropriate compensatory measures if an egress path must be temporarily obstructed by the lift.

4.4 Users of aerial and scissor lifts are responsible for compliance with the safe work practices in this procedure.

4.5 Everyone at the WCF is responsible for respecting the barricades, cones or warning signs established by the operators of the lift.

5.0 Safe Work Practices:

5.1 The following safe work practices apply while using an aerial lift:

- Stand firmly on the floor of the bucket or lift platform.
- Do not climb or lean on or over the guardrails.
- Do not use planks, ladders, or other devices as a working position.
- Use a body harness with a lanyard attached to the boom or bucket.
- Do not belt-off to adjacent structures or poles while in the bucket.

5.2 The following safe work practices apply to the use of scissor lifts:

- Users shall not attach a personal fall arrest system to a guardrail system.
- Users shall not stand on a guardrail.

- When exposed to a fall of 10 feet or more, workers must use a personal fall arrest system or suitable guardrail system.
- Employees shall not be allowed to ride on scaffolds unless the surface is within 3 degrees of level and free of holes and obstructions; the height to base width ratio during movement is two to one or less; and the speed is not faster than 1 foot per second.

5.3 The following safe work practices apply to any operator of the aerial or scissor lift:


- A spotter shall be used any time the lift is being moved.
- Use cones, tape or barricades to prevent affected workers from passing underneath an elevated lift. Where required, the warning barrier shall be established over a wider area.
- Use appropriate signage to warn affected workers of overhead work.
- Stop work and notify the COR or Supervisor if affected workers do not comply with the warning signs and barricades.
- Use debris netting attached to the lift, or some other method to prevent small objects from falling onto equipment or workers below.
- In the event of an alarm, immediately lower the lift, and immediately eliminate any obstruction to an egress route.
- Do not park an unattended lift in an egress pathway.
- Do not block an electrical panel or fire extinguisher with an unattended lift.

6.0 References

- 29 CFR 1926.450 Scaffolds
- 29 CFR 1926.453 Aerial lifts
- 29 CFR 1926.500 Fall Protection
- 29 CFR 1926.502 Fall protection systems criteria and practices
- 29 CFR 1910.67
- 29 CFR 1910.269
- 29 CFR 1926.21

7.0 Document Revision History

REVISION	PURPOSE OF REVISION	EFFECTIVE DATE

	Hoists and Cranes		Revision: Initial
	Document Control Number: 75W-04.0-13		Date: 9/18/17
EMS Procedure	Responsible Organization: WCF / EHS Branch		
	Approved By: Virginia Baldwin	Signature: <electronically approved>	

1.0 Purpose

This procedure outlines the requirements for the safe operation, maintenance, and inspection of hoists and cranes.

2.0 Scope

This procedure applies to all cranes and hoists at the BEP Western Currency Facility (WCF).

3.0 Definitions

- 3.1 ASME: American Society of Mechanical Engineers
- 3.2 Crane: A machine used for lifting and lowering a load and moving it horizontally. Cranes whether fixed or mobile are driven manually, by power or by both.
- 3.3 Pre-operational Inspection: An inspection for defects in all functional operating systems that must be performed at the beginning of the shift or before the equipment is first used during the shift by the operator. Records are not required.
- 3.4 Frequent Inspection: A monthly visual examination performed by the group having maintenance custody and control of the hoist or crane, as required by ASME B30.16-2012, ASME B30.17-2015, ASME B30.10-2014, ASME B30.20-2013 or OSHA 1910.179. Records are required. For the purpose of this procedure, frequent inspections are required once per month. The inspection record must contain the date and signature of the person who performed the inspection.

- 3.5 Hoist: A suspended unit that is used for lifting or lowering a freely suspended load. A hoist may be hand-chain operated, electrically powered, or pneumatically powered.
- 3.6 Annual Inspection: A visual inspection by a designated person or contractor who records the results of the inspections as required by ASME B30.16-2012, ASME B30.17-2015, ASME B30.10-2014, ASME B30.20-2013 or OSHA 1910.179. For the purpose of this procedure an annual inspection is required once per calendar year. The inspection record must contain the date and signature of the person who performed the inspection. Note: Any Hoist or Crane that has been idle for 6 months or longer must undergo an annual inspection before use.
- 3.7 Rated load: The maximum load for which a hoist is designated by the manufacturer or qualified person and shown on the equipment nameplate(s). The rated load must be marked on the hoist or its load block, on the crane, the monorail, and must be visible from the floor.

4.0 Roles and Responsibilities

4.1 Electro-Machinists shall:

- a) Ensure that all initial, frequent (monthly) and annual inspections as required by ASME B30.16-2012, ASME B30.17-2015, ASME B30.10-2014, ASME B30.20-2013 or OSHA 1910.179 are performed for all cranes, hoists, under the care and control of the Electro-machine Shop; and
- b) Ensure that prior to use, annual tests are performed on hoists and cranes not used at all during the last 6 months; and
- c) Maintain records of load tests that are performed by the manufacturer on all new hoists and cranes; and
- d) Maintain a current inventory of cranes and hoists under their care; and
- e) Maintain records of the inspections performed on equipment under their control. Frequent and annual inspections must contain the components inspected in addition to being signed and dated by the person performing the inspection. Form 75W-04.0-13FA Frequent Crane Inspection can be used as a reference for specific inspection requirements for frequent and/or annual inspections.

4.2 The Facilities Support Branch or its Contractors shall:

- a) Ensure that all initial, frequent (monthly) and annual inspections as required by ASME B30.16-2012, ASME B30.17-2015, ASME B30.10-

2014, ASME B30.20-2013 or OSHA 1910.179 are performed for all cranes, hoists under the care and control of the facilities Support Branch and its Contractors; and

- b) Ensure that prior to use, a complete inspection is performed on hoists and cranes not used at all during the last 6 months by a qualified person; and
- c) Maintain a current inventory of cranes, hoists, under their care; and
- d) Maintain records of the inspections performed on equipment under their control. Frequent and annual inspections must contain the components inspected in addition to being signed and dated by the person performing the inspection. Form 75W-04.0-13FA Frequent Crane Inspection can be used as a reference for specific inspection requirements.

4.3 Section Supervisors shall:

- a) Ensure that each operator receives specific operator training on the hoists and cranes used by their employees in their respective work areas; and
- b) Ensure that each operator receives training on how to perform Pre-operational Inspection and
- c) Ensure that each hoist or crane has a Pre-operational checklist posted near the hoist or crane that details the inspection procedure each operator must conduct prior to operating the hoist or crane; and
- d) Request a review from the EHS Branch prior to purchasing or altering any hoist and crane; and
- e) Ensure that hoist and crane systems with unsafe defective or malfunctioning conditions recognized by the pre-operational or frequent (monthly) inspection requirements are removed from service until repairs are made by designated personnel.

4.4 The EHS Branch shall:

- a) Maintain this procedure and interpret associated regulations and standards; and
- b) Review required records during the annual departmental audits; and
- c) Provide training materials for operators of cranes and hoists used by BEP employees.
- d) Provide inspection tags to be attached to equipment.

4.5 Hoist and Crane Operators shall:

- a) Perform a Pre-operational Inspection of each crane and hoist before use, and,

- b) Pre-operational inspections must be completed using the prescribed checklist; and
- c) Ensure that the hoist and crane has passed the latest frequent (Monthly) inspection by the presence of the initials of the person inspecting the equipment, and the date it was inspected on the inspection tag. Notify the area Supervisor before using any equipment that has not been inspected within the past month.
- d) Safely use cranes, hoists, and report any deficiencies to the supervisor.

5.0 Procedures

- 5.1 Hoists identified for inspection shall be inspected for the following defects and damage at the required interval.

5.1.1 Pre-operational inspections shall include an inspection of all functioning operating mechanisms for maladjustment, deterioration or leakage in lines and valves, hooks with deformations or cracks, hook latch, wire rope, hoist chain, and reeving. The operator shall confirm that the hoist has passed a frequent inspection by the presence of the inspector's initials and date on the appropriate inspection tag. Any hoist or crane, that is identified as defective or malfunctioning shall be reported to the appropriate supervisor.

5.1.2 Monthly inspections must include an inspection of all items listed for Pre-operational inspection plus the system components listed on the 75W-04.0-13FA Monthly Crane and Hoist Inspection checklist. Hoist and crane systems passing a monthly inspection shall be marked by initialing the appropriate inspection tag with the date the inspection was performed. Any hoist or crane, that is identified as defective or malfunctioning shall be reported to the appropriate supervisor.

- 5.2 The supervisor shall validate the deficiency and remove the equipment from service if required.
- 5.3 A crane or hoist that is removed from service and locked and tagged does not require inspection or maintenance. Note: Any Hoist or Crane that has been Idle for more than 1 month but less than 6 months must undergo a frequent inspection before being put back into service. Any Hoist or Crane that has been idle for 6 months or longer must undergo an annual inspection before use.

6.0 Recordkeeping:

- 6.1 Facilities Support Branch or its Contractors shall provide annual inspection reports to the EHS department within ten days of receiving or finalizing the inspection report.
- 6.2 Facilities Support Branch or its Contractors shall maintain the frequent inspection reports and make available to the EHS department.
- 6.3 Electro-Machinists shall provide annual inspection reports to the EHS department within ten days of receiving or finalizing the inspection report.
- 6.4 Electro-Machinists shall maintain the frequent inspection reports and make available to the EHS department.
- 6.5 Inspection records shall be maintained for three years or the life of the equipment; whichever is longer.

7.0 Related Documents:

- 7.1 ASME B30.17-2015 and its successors *Cranes and Monorails (With Underhung Trolley or Bridge)*
- 7.2 ASME B30.16-2012 and its successors *Overhead Hoists (Underhung)*
- 7.3 ASME B30.10-2014 and its successors *Hooks*
- 7.4 OSHA 29 CFR 1910.179 *Overhead and Gantry Crane*
- 7.5 75W-04.0-13FA Monthly Crane and Hoist Inspection
- 7.6 75W-04.0-13FB Pre-operational Hoist and Crane Checklist

8.0 Document Revision History:

Revision#	Purpose of Revision	Effective Date



Monthly Crane & Hoist Inspection

75W-04.0-13FA

Department: _____

Date: _____

Crane or Hoist & Location: _____

<input type="checkbox"/> Misadjustment and Unusual Sounds	Check all functional operating mechanisms for misadjustment and unusual sounds (squeaking, grinding, and grating).
<input type="checkbox"/> Limit Switches and End Stops	Check that all limit devices are operating properly. Check placement of end stops.
<input type="checkbox"/> Hoist Braking System	Check that all motions do not have excessive drift and that stopping distance is normal.
<input type="checkbox"/> Leakage	Check lines, valves, tanks, pumps and other parts for hydraulic or air leakage. Check for any sign of oil leakage.
<input type="checkbox"/> Hooks	Check for damage, cracks, nicks, gouges, corrosion and deformations of the throat opening. Check for wear on saddle or load bearing point and for any twisting.
<input type="checkbox"/> Hook Latch	Make sure hook latch is attached and functioning properly.
<input type="checkbox"/> Wire Rope	Check for broken wires, broken strands, corrosion, kinks, and any deformation or damage to the rope structure.
<input type="checkbox"/> Hoist Chain	Check for nicks, cracks, gouges, wear, corrosion, and stretch.
<input type="checkbox"/> Reeving	Check that the chain is in the upper and lower sprockets and in the chain guide. Check that the wire rope is properly reeved and that rope parts are not twisted around each other.

ASME B30.16-2012 *Overhead Hoists (Underhung)*; ASME B30.17-2015 *Cranes and Monorails (With Underhung Trolley or Bridge)*; ASME B30.10-2014 *Hooks*

Note: Any deficiencies identified shall be examined by a qualified person as to whether they constitute a hazard. Any conditions found to be a hazard by a qualified person to continued operation shall be corrected by adjustment, repair, or replacement before continuing the use of the equipment.

Comments:

NAME (PRINT): _____

NAME (SIGN): _____

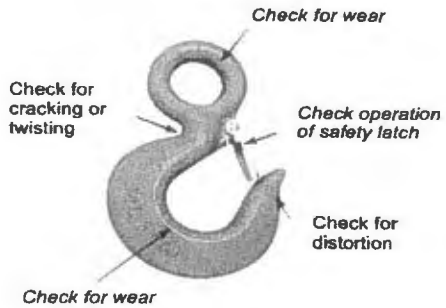






Pre-operational Hoist & Crane Checklist

75W-04.0-13FB

All hoists and cranes must be inspected for the following defects prior to use:

If any of the below items are discovered, **DO NOT USE** and contact your supervisor immediately.

Misadjustment and Unusual Sounds	Check all functional operating mechanisms for misadjustment and unusual sounds (squeaking, grinding, and scraping).	
Leakage	Check lines, valves, tanks, pumps, and other parts for hydraulic or air leakage Check for any sign of oil leakage.	
Hooks	Check for damage, cracks, nicks, gouges, corrosion and deformations of the throat opening. Check for wear on saddle or load bearing point and for any twisting.	
Hook Latch	Make sure hook latch is attached and functioning properly.	
Wire Rope	Check for broken wires, broken strands, corrosion, kinks, and any deformation or damage to the rope structure.	
Hoist Chain	Check for nicks, cracks, gouges, wear, bends, corrosion, and stretch.	
Reeving	Check that the chain is in the upper and lower sprockets and in the chain guide. Check that the wire rope is properly reeved and that rope parts are not twisted around each other.	
Ensure It is Marked	Check to see that the hoist and crane has passed the last monthly inspection.	Contact Supervisor if the hoist and crane system has not been inspected within the last month.

	Eye and Face Protection		Revision: Initial Release
	Document Control Number: 75W-04.0-14		Date: 8/11/17
SAF Procedure	Responsible Organization: WCF/EHS		
	Approved By: Virginia Baldwin		Signature: <electronically approved>

1.0 Purpose:

The purpose of this written program is to establish the framework for implementation of the regulatory requirements found in 29 CFR 1910.133.

2.0 Scope:

This procedure applies to all employees and contractors working at the Western Currency Facility (WCF) where there is a possibility of exposure to eye or face hazards from flying particles, molten metal, liquid chemicals, acids or caustic liquids, chemical gases or vapors, or potentially injurious light radiation.

3.0 Definitions (If needed)

4.0 Roles and Responsibilities:

4.1 Environmental, Health and Safety (EHS) Manager is responsible for:

- a. Overall administrative and technical responsibilities with selecting appropriate eye and face personal protective equipment available to employees.
- b. Ensuring personal protective equipment hazard assessments are conducted for tasks and locations that may require eye and face protection.
- c. Providing adequate training on appropriate eye and face protection selection, donning and doffing, adjusting, wearing, and limitations of eye and face PPE.

4.2 Supervisors and Managers shall:

- a. Ensure employees are wearing the designated eye and face protection when completing tasks or working in designated locations.
- b. Take appropriate enforcement actions with regard to employees who fail wear required eye and face protection or alter protection to include the removal of side shields.
- c. Remove damaged or defective PPE from designated work areas upon notification.

d. Ensuring that:

- i. Signs are posted in visible locations where eye and face protection is required.
- ii. Employees entering designated areas where appropriate eye and face protection.
- iii. Appropriate eye and face protection is available in the work area; and
- iv. Appropriate supplies are available for the care of eye and face protection.

4.3 Employees shall:

- a. Wear required eye and face protection while completing tasks or in designated areas.
- b. Store and care for eye and face protection to prevent damage.
- c. Notify supervisor when eye and face protection is in unserviceable condition or in short supply.

5.0 Requirements

5.1 Appropriate eye or face protection must be worn by employees when working in areas where they may be exposed to eye or face hazards from flying particles, molten metal, liquid chemicals, acids or caustic liquids, chemical gases or vapors, or potentially injurious light radiation. The following designated locations have an inherent risk based upon hazard assessments conducted of operations and thus require safety glasses with side shields as minimum protection while present in the work area:

- a. Plate Printing
- b. Offset
- c. Single Note Inspection
- d. LEPE
- e. Electro-Machinist Shop
- f. Cope
- g. Mechanical Exam
- h. Ink Mill
- i. Plate Making
- j. Roller Recovery Room
- k. Flammable Liquid Storage Building
- l. 90-day Central Waste Accumulation Area (CWAA)

5.2 PPE hazard assessments must outline the designated areas and tasks that require eye and face protection. Hazard assessments must be dated and signed to certify that they have been completed.

5.3 Employees requiring prescription lenses must wear eye protection that incorporates the prescription in its design, or wear eye protection that can be

worn over the prescription lenses without disturbing the proper position of the prescription lenses or the protective lenses.

- 5.4 Face shields must be worn during any operation involving grinding, cutting, or when outlined in a PPE Hazard Assessment or Job Hazard Analysis.
- 5.5 Employees shall wear equipment with filter lenses that have a protective shade number appropriate for the work being performed for protection from injurious light radiation. The following table is the listing of appropriate shade numbers for various operations:

Filter Lenses for Protection Against Radiant Energy			
Operations	Electrode Size 1/32in.	Arc Current (Amperes)	Minimum Protective Shade
Shielded Metal Arc Welding (SMAW)	Less than 3	Less than 60	7
	3-5	60-120	8
	5-8	160-250	10
	More than 8	250-550	11
Gas Metal Arc Welding (GMAW) and Flux Cored Arc Welding (FCAW)		Less than 60	7
		60-160	10
		160-250	10
		250-500	10
Gas Tungsten Arc Welding (GTAW)		Less than 50	8
		50-150	8
		150-500	10
Air Carbon Arc Cutting (light)		Less than 500	10
Air Carbon Arc Cutting (Heavy)		500-1000	14
Plasma Arc Welding (PAW)		Fewer than 20	6
		20-100	8
		100-400	10
		400-800	11
Torch Brazing			3

- 5.7 Eye and face protection worn must meet one of the following consensus standards:

ANSI/ISEA Z87.1-2010, Occupational and Educational Personal Eye and Face Protection Devices, incorporated by reference in § 1910.6

ANSI Z87.1-2003, Occupational and Educational Personal Eye and Face Protection Devices, incorporated by reference in § 1910.6


ANSI Z87.1-1989 (R-1998), Practice for Occupational and Educational Eye and Face Protection, incorporated by reference in § 1910.6

6.0 Related Documents:

6.1 75W-04.0-04 Personal Protective Equipment (PPE)

7.0 Document Revision History

REVISION	PURPOSE OF REVISION	EFFECTIVE DATE
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	Hazard Communication Program		Revision: #1
	Document Control Number: 75.00-SAF-001		Date: 10/19/15
EMS PROC.	Responsible Organization: WCF/EHS Branch		
	Approved By: Virginia Baldwin		Signature: <SIGNED>

1.0 PURPOSE

The purpose of this program is to implement a comprehensive Hazard Communication Program that fully meets the requirements of the OSHA Hazard Communication Standard contained in 29 CFR 1910.1200.

2.0 SCOPE

The scope of this procedure does not extend beyond the scope of 29 CFR 1910.1200, Hazard communication. The definitions of terms used in this procedure do not differ from the definitions of the same term in the Hazard Communication Standard. The text of the Hazard Communication Standard has been updated by OSHA in 2012 to align with the UN Globally Harmonized System (GHS). The updated text does not place any duty on the WCF to alter any existing label or MSDS.

This program applies to all WCF personnel.

3.0 RESPONSIBILITIES

3.1 EHS Branch Manager

The EHS Branch Manager shall have overall administrative and technical responsibilities for the Hazard Communication Program. Specifically, the EHS Branch Manager shall:

- Maintain a list of hazardous chemicals and their locations at the Western Currency Facility (WCF).
- Review all manufacturer-provided Safety Data Sheets and provide a written recommendation to approve or disapprove the use of the chemical.
- Maintain copies of SDSs for chemicals used at the WCF.
- Upon request, provide information to managers, employees and designated representatives regarding the hazards of non-routine tasks.
- Ensure that training is offered to workers who may be exposed to hazardous chemicals during the normal course of their work or in a foreseeable emergency.
- Ensure that a training record is maintained for each Hazard Communication training session that includes dates, times and attendees.

3.2 Facilities Division Manager

The Facilities Division Manager shall:

- Ensure that all piping systems conveying hazardous chemicals are properly labeled.

3.3 Managers, Supervisors and CORs

Managers, Supervisors and CORs at all levels shall:

- Submit an SDS to the EH&S Branch for review prior to purchasing the chemical for use at the WCF.
- Ensure that training has been provided when new or reassigned employees begin work in an area where hazardous chemicals are used.
- Require employee attendance at required HAZCOM training programs, and inform the EHS Branch when new or reassigned employees begin work in an area where hazardous chemicals are used.
- Attend Hazard Communication training as required.
- Maintain in the workplace copies of the required SDS, and shall ensure they are readily accessible during each work shift to employees in their work areas. Electronic copies or paper copies are permissible.
- Ensure that a list of hazardous chemicals used in the work area is available in that area. The list may be available in hard copy or electronically.
- Notify the EHS Branch of planned non-routine operations involving hazardous chemicals prior to performing such operations.
- Ensure that all portable containers of hazardous chemicals are properly labeled with the product identifier and words pictures or symbols that provide general information regarding hazards.
- Upon request, perform an inventory of chemicals in the work area to verify that an SDS is available for each chemical, and that each chemical is properly stored.
- Ensure that the physical inventory of chemicals corresponds to the current SDS.

3.4 Employees

Employees shall:

- Exercise all necessary precautions in the safe use of hazardous chemicals.
- Report all hazardous chemicals which do not have a SDS available to the supervisor of the work area.
- Attend all scheduled training sessions concerning the use of hazardous chemicals.

4.0 PROCEDURE

4.1 Container Labels

General Stores will verify that all containers of hazardous chemicals received for use by the BEP are labeled or marked by the manufacturer or distributor with the following information:

1. Product identifier.
2. Signal word.

3. Hazard statements.
4. Pictograms.
5. Precautionary statements.
6. Name and address of the chemical manufacturer, importer, or other responsible party.

4.2 Safety Data Sheets

The Hazard Communication Standard (of 2012) has been updated to align with the UN Globally Harmonized System. The term Material Safety Data Sheet (MSDS) found in previous Hazard Communication Standard of 1994 has been updated to the term Safety Data Sheet (SDS). There is no duty placed on the WCF to alter any existing MSDS or associated label that satisfied a previous revision of the Hazard Communication Standard.

Each area shall have a Safety Data Sheet (SDS) or MSDS for each hazardous chemical used in that area. The presence of the SDS or MSDS as a hard copy or as an electronic copy available on IN\$ITE satisfies this requirement.

As they become available, each SDS shall be in English and shall contain at minimum the following information:

- Section 1, Identification;
- Section 2, Hazard(s) identification;
- Section 3, Composition/information on ingredients;
- Section 4, First-Aid measures;
- Section 5, Fire-fighting measures;
- Section 6, Accidental release measures;
- Section 7, Handling and storage;
- Section 8, Exposure controls/personal protection;
- Section 9, Physical and chemical properties;
- Section 10, Stability and reactivity;
- Section 11, Toxicological information;
- Section 12, Ecological information;
- Section 13, Disposal considerations;
- Section 14, Transport information;
- Section 15, Regulatory information, and
- Section 16, Other information, including date of preparation.

4.3 Chemical Information

The EHS Branch shall maintain an inventory of hazardous chemicals including their identities and locations in WCF areas. The list may be paper copy or electronic.

4.4 Non-routine Tasks

Hazardous non-routine tasks are considered to be those tasks that are not typically performed during a normal work shift but are periodically carried out as part of the work assignment. It is the responsibility of the employee's supervisors to provide workers engaged in hazardous non-routine tasks with the following information:

- Hazardous chemicals to which they may be exposed to while in the workplace.
- Measures to lessen the potential for exposures.
- Appropriate PPE, if needed.
- Location of SDS for all hazardous chemicals.
- Procedures to follow in the event of a worker exposure.
- Measures taken by the BEP to lessen the hazards including ventilation, respirators, presence of other employee(s) and emergency procedures.

4.5 Employee Training and Information

Employees shall be provided with information and training on hazardous chemicals in their work area at the time of initial assignment and whenever a new chemical hazard is introduced into their work area. The information and training may be designed to cover categories of hazards.

Employees shall be informed of:

- Operations in their work areas where hazardous chemicals may be present.
- Location and availability of the written hazard communication program.

Employee training shall include at least the following:

- Methods and observations that may be used to detect the presence or release of a hazardous chemical in the work area.
- The physical and health hazards of the chemicals in the work area.
- Protective measures against these hazards.
- The details of this procedure.
- An explanation of the labeling system, the SDS forms and how to obtain and use them.

Information may be transmitted to the employee in any form using any method. Records are not required.

Training may be performed using any method including any combination of printed or electronic audio visual media, and may be conducted by an instructor, supervisor or by using computer based modules. Records will be maintained of all training sessions.

4.6 Informing Contractors

It is the responsibility of the COR to provide the contractors with the following information:

What hazardous chemicals they or their employees may be exposed to while at the job site.

- What measures the contractor's employees may take to lessen the possibility of exposure to a hazardous chemical and the procedures they should follow if they should follow if they are exposed to a hazardous chemical above the Permissible Exposure Limit (PEL).
- What labeling procedures are followed and how the labels convey the hazards.
- The location of and access to Safety Data Sheets.

The COR shall inform the contractor that the contractor is responsible for informing the BEP of all hazardous materials they will use during the project, and shall provide proper SDSs prior to bringing the chemicals on site.

5.0 Recordkeeping

The following documents resulting from implementation of the Hazard Communication Program shall be maintained:


- Training records.
- Safety Data Sheets for all hazardous chemicals on site.
- Chemical inventories.

6.0 References

OSHA Standard on Hazard Communication, 29 CFR 1910.1200.

7.0 Revision History

REVISION	PURPOSE OF REVISION	EFFECTIVE DATE
1	Make changes required to be compliant with the Globally Harmonized System. Add additional detail to Supervisor and COR responsibility. Reformat for readability. Change signatory.	10/19/15

	Hearing Conservation Program		Revision: #1
	Document Control Number: 75W-05.0-02		Date: 7/14/17
EMS Procedure	Responsible Organization: WCF/ EHS		
	Approved By: Virginia Baldwin		Signature: <electronically approved>

1.0 INTRODUCTION

The purpose of this written program is to establish the framework for implementation of the regulatory requirements found in 29 CFR 1910.95.

2.0 SCOPE & APPLICATION

The Hearing Conservation Program (HCP) applies to all employees and contractors working in areas where there is a potential for noise exposures equal to or in excess of 85 dBA as an eight-hour time weighted average.

3.0 RESPONSIBILITIES

3.1 Environmental, Health and Safety (EHS) Manager is responsible for:

- Overall administrative and technical responsibilities for the HCP.
- Performance of noise surveys, report preparation, and notification of results and recommendations.
- Identifying high noise areas and posting appropriate signage.
- Providing a written copy of this procedure to BEP employees, supervisors, and managers upon request.
- Providing HCP training including the use of hearing protectors, or re-fitting and re-training in the use of hearing protectors as appropriate and maintaining training records.
- Ensuring appropriate hearing protection is provided to employees required to wear hearing protection.
- Ensuring that affected employees are scheduled for an audiogram on an annual basis.
- Providing notifications to employees upon the determination of a Standard Threshold Shift.
- Coordinating with the appropriate organizations to identify feasible engineering controls for eliminating or otherwise reducing potential noise hazards.

3.2 Supervisors and Managers are responsible for:

- Ensuring the HCP is properly implemented and enforced in their work areas.
- Ensuring that employees: a) participate in audiometric testing when scheduled by EHS and b) attend hearing conservation training.
- Taking appropriate enforcement actions with regard to employees who fail to report for audiometric tests.
- Taking appropriate enforcement actions with regard to employees who do not wear hearing protectors properly or do not wear hearing protectors where required.
- Notifying EHS and the Health Unit whenever an employee's work assignment changes so that appropriate audiometric testing can be accomplished.
- Inform EHS of suspected excessive noise levels in their work areas.
- Cooperating with EHS by supporting noise monitoring activities.
- Attending departmental training sessions on hearing conservation.
- Ensuring that:
 - (a) Signs are posted in visible locations in designated hearing protection areas.
 - (b) Employees entering designated areas wear appropriate hearing protectors.
 - (c) Appropriate hearing protectors are available in the work area; and
 - (d) Appropriate supplies are available for the care of hearing protectors.

3.3 The Health Unit is responsible for:

- Maintaining employee audiogram records.

3.4 Employees are responsible for:

- Following proper procedures concerning audiometric testing requirements and use of hearing protection.
- Notifying supervisors of new noise sources in their work areas.
- Attending all required training on hearing conservation.
- Assisting management in obtaining accurate noise exposure results through participation in personal monitoring.
- Acknowledging they have received notification that they are or are not in the HCP.
- For employees that are in the HCP, required participation in annual audiogram testing (and retesting).
- Acknowledging they have received notification of a Standard Threshold Shift.

3.5 Office of Human Resources is responsible for:

- Coordinating transfers of medical records between the WCF and DCF, or the successor agency, as applicable.
- Notifying the Health Unit and EHS when employees are hired or leave the BEP, including retirements, resignations, etc.

3.6 Facilities Division is responsible for:

- Submitting all statements of work and specifications for new or modified machines and equipment to EHS for review of noise emission data.
- Specifying maximum noise levels of 85 dBA (at typical operator positions) in all new equipment specifications; and
- Ensuring that if such equipment exceeds 85 dBA at typical operator positions, then modifications to install appropriate engineering controls in the workplace will be evaluated and implemented when feasible.

4.0 PROCEDURE

4.1 Noise Evaluation

In order to effectively control noise it is necessary that the noise be accurately measured according to standard procedures and that the measurements are compared with standard accepted criteria. Periodic noise surveys and evaluations of work areas shall be performed by the EHS to identify employees whose exposures to noise are equal to or greater than the OSHA Action Level of 85 dBA for an eight hour time-weighted average. The results of these surveys shall be made available to supervisors/managers and employees.

Employees whose exposures equal or exceed the OSHA Action Level shall be enrolled in the HCP. Written notification shall be provided to the supervisors of employees who are enrolled in the HCP.

For employees whose exposure to noise exceeds the Permissible Exposure limit (PEL), BEP will evaluate the feasibility of installing engineering controls designed to reduce or eliminate the noise hazards. If employee exposures to noise are between the Action Level and the PEL, EHS shall provide the monitoring report to the operating component employing the affected employees and recommend corrective actions for reducing the exposure levels when appropriate.

Noise Evaluation Records shall be retained by EHS for at least two years after they have been made available to employees.

4.2 Medical Surveillance

EHS will arrange for baseline audiograms for employees who are newly enrolled in the HCP. EHS will arrange for annual audiograms for employees who are already enrolled in the HCP. EHS will arrange for exit audiograms when employees are removed from the HCP.

The HCP Professional Supervisor shall review all audiograms and identify employees whose audiograms show a Standard Threshold Shift (STS) as specified by OSHA Standards. If an employee has a STS, a retest shall be scheduled within 30 days of the original test. If the retest is an improvement over the previous annual audiogram and no longer indicates an STS, then the first audiogram will be considered a temporary threshold shift and the baseline will not be changed. If the employee's retest continues to show an STS, then the employee may be sent out to be evaluated by an Ear/Nose/Throat Doctor and/or Audiologist specializing in hearing loss based upon the

evaluation of the HCP Professional Supervisor. The Audiologist will revise the employee's baseline audiogram as appropriate.

EHS will forward notifications of employee STS to the affected employees, their supervisors, within 21 days of the STS confirmation.

The Health Unit or EHS will maintain records of employees' audiometric tests and ontological histories for at least the duration of the affected employees' employment. Records shall include the names of employees, their job titles, the evaluation date, the technician's name, and the date of all types of calibrations of the audiometer.

All audiometric evaluations will be scheduled with supervisors by EHS.

4.3 Employee Training

EHS shall institute a training program for all employees who are exposed to noise at or above the OSHA Action Level, and ensure employee participation in this program. Training shall be conducted at the time of employment and annually thereafter. Employees who experience a Standard Threshold Shift shall be retrained within 60 days of the shift notification.

The Training shall cover the following items:

- The effects of noise on hearing ability.
- The purpose of hearing protectors, the advantages, disadvantages, and attenuation of various types, and instructions on selection, fitting, use, and care; and
- The purpose of audiometric testing, and an explanation of the test procedures.

The training material is contained in Course # 136, Hearing Conservation.

4.4 Personal Protective Equipment

Use of hearing protection is required in posted areas and in areas identified in the Memorandum, Requirement to Wear Hearing Protection, dated February 14, 2017 from the Acting Associate Director to all WCF Employees.

Employees will be given the opportunity to select hearing protective devices from a variety of suitable ones available from General Stores and the WCF EHS. All hearing protection worn must be provided or approved by the BEP.

EHS provides training on the use of hearing protection devices.

4.5 Program Evaluation

The program will be evaluated annually.


5.0 RECORDKEEPING

The following records associated with the HCP shall be maintained by EHS:

- Medical evaluations and audiograms
- Training records
- Hazard evaluations
- Hearing Conservation Program evaluations
- Noise Exposure Monitoring

6.0 DOCUMENT REVISION HISTORY

Rev #	Purpose of Revision	Effective Date
1	Change document number. Change signatory name. Edited roles and responsibilities to address changes in audiogram testing and evaluation.	7/14/17

	Respiratory Protection Program		Revision: Initial Release
	Document Control Number: 75W-05.0-03		Date: 4/8/16
SAF Procedure	Responsible Organization: WCF/EHS Branch		
	Approved By: Virginia Baldwin		Signature: <SIGNED>

1.0 Purpose:

To define the respiratory protection program (RPP) for the Bureau of Engraving and Printing (BEP) at the Western Currency Facility (WCF) in Fort Worth, Texas.

2.0 Scope:

This procedure applies to BEP employees of the WCF.

3.0 Roles and Responsibilities:

3.1 The WCF Environmental, Health and Safety (EHS) Branch shall:

- a. Maintain all respirators, testing equipment and all accessories necessary to properly manage and implement the RPP;
- b. Develop and implement written policies and procedures for effective management of the RPP within the BEP;
- c. Conduct exposure assessments of suspected areas or operations that may require the use of respiratory protection;
- d. Develop respirator cartridge change out schedule(s) when cartridges without end-of-service life indicators are issued;
- e. Notify the BEP Health Unit (HU) to perform the appropriate tests and screening procedures to determine employee suitability to wear respiratory protection;
- f. Select, fit test, and train targeted employees concerning the proper donning procedures, the type of respirator selected, its capabilities and limitations, its effectiveness, and maintenance of employee issued respiratory protection;
- g. Maintain accurate program records of employees issued respiratory protection to include type of fit test performed (QLFT or QNFT) and its results, date of respirator issuance, type of respirator issued, respirator manufacturer, type of cartridge/filters issued, anticipated exposure, and the operation that requires the use of respiratory protection;
- h. Evaluate the effectiveness of the RPP through an annual audit; and

- i. Conduct air monitoring, where necessary, when employees are utilizing respiratory equipment.

3.2 Supervisors and Managers shall:

- a. Coordinate with the EHS Manager for guidance when a task or operation may require the use of respiratory protection;
- b. Contact the BEP HU to schedule employees for respirator suitability tests and screening once the EHS Manager has determined that the use of respiratory protection is required;
- c. Contact the EHS Manager to schedule training and fit testing once the HU has given the employee medical clearance;
- d. Ensure that respirators are properly cleaned, sanitized, maintained, and stored; and
- e. Enforce the proper use of respiratory protection.

3.3 Employees shall:

- a. Comply with the instructions noted in this document and with the instructions given by the EHS Manager during training and fit testing to include: face piece seal protection, respirator maintenance and storage, end of service indicators (where applicable), and identification of filters, cartridges and canisters;
- b. Read and heed all instructions provided by the manufacturer on the use, maintenance, cleaning and care, and warnings regarding respirator limitations; and
- c. Contact the EHS Manager if there are any questions or comments concerning the fitting, usage, and maintenance of the issued respirator. The EHS Manager may be reached at (817) 847-3715.

3.4 The BEP Health Unit shall:

- a. Perform the necessary tests and screening to determine employee suitability to wear respiratory protection;
- b. Provide the EHS Manager with information concerning the testing as it pertains to the employees' suitability to wear respiratory protection; and
- c. Maintain accurate records of the testing results in the employees' official health record file.

4.0 Voluntary Use Respiratory Protection:

Employees may request respiratory protection even though respiratory protection is not required to complete assigned duties. This is known as voluntary use respiratory protection. Employees who request respiratory protection on a voluntary use basis, must comply with the standards outlined in this document that apply to required use respiratory protection. Those employees issued

voluntary use respiratory protection will be provided a copy of Appendix D to OSHA 29 CFR 1910.134.

4.1 N95 – N99 Respirators (Filtering Face Piece Respirators):

- a. Employees who request respiratory protection for personal comfort on a voluntary basis and are not required to wear tight fitting respiratory protection will be issued N95 –N99 respirators by the EHS Branch. These types of respirators are certified by the National Institutes for Occupational Safety and Health (NIOSH) and are designed to remove 95-99% of particles 0.3 microns (and larger) in diameter when worn properly. Such respirators are often referred to as “filtering face piece respirators” or (dust masks).

4.2 Training: The EHS Manager or designee shall train voluntary users on the proper use and limitations of using filtering face pieces.

4.3 Voluntary users who choose to wear filtering face pieces shall utilize filtering face pieces in a manner consistent with training and in accordance with the manufacturer’s recommendations.

4.4 Voluntary users who choose to wear respiratory protection other than filtering face pieces shall annually request to obtain a respiratory clearance from the EHS Branch. This clearance expires twelve months from date of issue.

5.0 Respirator Acquisition:

Only respiratory protection provided or approved by the EHS Branch shall be used by BEP employees. The EHS Manager or designee will issue the appropriate respiratory protection to employees in order to complete the required work task(s).

5.1 Once the EHS Manager has determined that the use of respiratory protection is required, employees may obtain a respirator using the following procedures:

- a. Coordinate with the EHS Manager for guidance when a task or operation may require the use of respiratory protection;
- b. The Supervisor/Foreman must contact the BEP-HU to schedule the employee(s) for respirator suitability tests and screening;
- c. Contact the EHS Branch to schedule training and fit testing once the HU has cleared the employee to wear a respirator;
- d. Comply with the instructions given by the EHS Manager or designee during training; and

- e. Contact the EHS Manager if there are any questions or comments concerning the fitting, usage, and maintenance of the issued respirator. The EHS Manager may be reached at (817) 847-3715.

6.0 Training:

All BEP personnel tasked with utilizing respiratory protection will receive comprehensive training upon initially receiving respiratory protection and annually, thereafter. The training will focus on proper donning procedures, the type of respirator selected, its capabilities and limitations, its effectiveness, and maintenance of employee issued respiratory protection.

7.0 Contracting Officer Representatives (COR):

Contractor procedures shall be in place to ensure that all elements of OSHA 29 CFR 1910.134 necessary to protect respiratory-wearing contractors are implemented, whether the respirator usage is voluntary or required. The COR shall also ensure that any contractors required or allowed to voluntarily wear a respirator, regardless of the duration of the work assignment, are following appropriate procedure for the protection of the contractor's health. The contractor's respiratory protection program shall be available for review by the EHS Branch.


All respiratory protection shall be NIOSH-certified and used in compliance with the conditions of its certification. Manufacturer's instructions must be followed.

8.0 Related Documents:

- 8.1 EHS Boilerplate Requirements for Construction Services Contractors
75W-08.0-02
- 8.2 Personal Protective Equipment 75W-04.0-04

9.0 Document Revision History

REVISION #	PURPOSE OF REVISION	EFFECTIVE DATE

	Injury and Illness Reporting		Revision: #1
	Document Control Number: 75W-06.0-01		Date: 7/14/16
PROC.	Responsible Organization: WCF/Facilities Division/EHS Branch		
	Approved By: Virginia Baldwin	Signature:	

1.0 Purpose:

The purpose of the injury and illness reporting procedure is to ensure prompt notification of appropriate personnel and immediate contact with the injured employee.

2.0 Scope:

This procedure applies to all Bureau employees and contractors at the Western Currency Facility.

3.0 Procedure:

The following procedures apply to all injured employees, supervisors, managers, Health Unit (HU) staff, Environmental, Health and Safety (EHS) Branch, and Workers' Compensation (WC) Branch.

3.1 Injured Employee:

- a. If you are injured at work, immediately report the injury and pertinent circumstances to your immediate supervisor. Supervisor notification can be postponed if the nature of the injury requires emergency care.
- b. If you require medical treatment, report to the HU. Inform the HU staff of the nature of your injury. Your supervisor is responsible for assisting you in this process as may be appropriate. At the HU, you will be offered medical care, but you may choose to be seen by your private physician.
- c. Follow the advice of the health care provider on how to care for your injury. If seen by an outside provider, they will determine when you are able to return to work and what your physical limitations are.
- d. If you received physical limitations, then you may be offered an alternative work assignment.

- e. If you are transported to an emergency medical facility or if you choose to be seen by your private physician, inform your supervisor immediately after the appointment regarding your disposition.
- f. Provide any medical evidence that supports your claim of temporary disability or physical limitations to WC and your supervisor. Your supervisor must be kept informed of your physical limitations, diagnosis, and ability to return to work.
- g. If you have questions concerning workers' compensation benefits, contact the WC staff.
- h. Complete Section 1 of the EHS Incident Report (BEP Form 1945) and work with the Supervisor and Environmental, Health and Safety representative to investigate the incident and determine the cause(s).

3.2 Supervisor:

- 3.2.1 Once notified of an employee injury or illness, ensure that appropriate care is provided for the employee. Based on the needs of the employee, accompany them to the HU or call the HU to immediately respond to the scene.
- 3.2.2 If the incident is major, then accompany the employee to the HU. **NOTE:** If you have any doubt as to whether the incident is major, then presume the incident is major and comply with all of the following steps, and help your employee.
- 3.2.3 After ensuring that the employee receives medical care, ask the employee what happened, identify the causal factors of the incident, and gather other facts and circumstances of the incident.
- 3.2.4 After the disposition of the employee has been determined, follow the instructions by the health care provider, as follows:
 - 3.2.4.1 If your employee can return to full duty, ensure they return to the work area.
 - 3.2.4.2 If the employee is not able to return to full duty, contact the WC Staff for assistance in identifying a temporary light or limited duty work assignment.
- 3.2.5 If your employee leaves the Bureau to be seen by a physician, request that the employee provide sufficient medical documentation on his/her disposition. **NOTE:** Supervisors have the right to information related to their employee's disposition as it relates to their ability to return to work.
- 3.2.6 If your employee cannot return to full duty, maintain routine contact with them to obtain updates about diagnosis and physical limitations and notify WC of updated information.

3.2.7 After your employee is evaluated and his/her disposition is determined, complete the EHS Incident Report (BEP Form 1945). Provide the completed form to the Environmental, Health, and Safety Branch representative who responds to the incident, and work together to identify causal factors and prevent recurrences immediately but no later than one working day.

3.2.7.1 Based on the results of the investigation and recommendations by EHS, perform any injury prevention or corrective actions within the area of your responsibility.

3.3 Health Unit (HU):

3.3.1 When an injured employee arrives at the HU, attend to them immediately.

3.3.2 For all work-related incidents, immediately notify the EHS Safety Specialist).

3.3.3 In cases where an injured employee refuses treatment, document the refusal in the employee's record with any other pertinent information regarding the incident.

3.3.4 If an injured employee chooses to be seen by their private physician rather than the Occupational Health Clinics contained in the Employee Work Injury packet, this should also be noted in the file.

3.3.5 For emergencies, the HU will notify the Police Communication Center of the need for an ambulance to transport the injured employee to the hospital. For non-emergencies, employees may arrange for their own transportation if so doing would not put them in jeopardy.

3.4 Environmental, Health and Safety Branch:

3.4.1 Upon notification of an incident from the HU, a representative from the EHS Branch will respond to the incident.

3.4.2 If the incident is major, a representative from EHS will immediately report to the HU and/or the scene of the incident, as appropriate, to identify and analyze causal factors in order to develop actions to prevent repeated injuries.

3.4.3 Assist the supervisor in a collaborative manner to complete documentation, identify causal factors, and ensure recurrences are avoided.

3.4.4 Document the results of the causal factor analysis and root cause determination(s).

3.5 Workers' Compensation:

In case of a work-related injury or illness, the injured employee has the right to file a claim for workers' compensation benefits. In case a claim is filed, the workers' compensation staff will follow policy and procedure pertaining to their role.

3.6 Executives, Chiefs, Managers, and Supervisors:

All members of management are accountable for work-related injuries and illnesses that occur in their area of responsibility. Tools to integrate this accountability into each directorate, office, and/or division's daily operations, include the following:

- 3.6.1 Ensure subordinate supervisors are fulfilling their responsibilities by immediately responding to major incidents;
- 3.6.2 Participate in investigations and corrective actions. Allocate the necessary resources to ensure that corrective actions are effectively implemented;
- 3.6.3 Routinely involve employees in health and safety meetings where issues and solutions are explored, and seek solutions that are reached jointly between labor and management;
- 3.6.4 Discuss pertinent health and safety issues in routine meetings;
- 3.6.5 Review reports to ensure that corrective actions were completed in a timely manner;
- 3.6.6 Where corrective actions are not effectively completed, take immediate action to ensure corrective actions are effectively implemented; and
- 3.6.7 Hold subordinate supervisors, managers, and chiefs accountable for injuries, illnesses, and near misses in their area(s) of responsibility.

4.0 Contractors involved in an incident/accident:


- 4.1 Immediately report incident along with any injuries to the COR and the EHS Branch (ext. 3805).
- 4.2 The EHS Branch will inform the COR if an EHS Incident Report (BEP Form 1945) needs to be completed. EHS Incident Report is available on In\$ite under Forms.
- 4.3 The COR must coordinate the completion of the EHS Incident Report Form and provide to the EHS Branch immediately but no later than one working day.

5.0 Related Documents:

EHS Incident Report Form (BEP Form 1945)

6.0 Document Revision History

Rev. #	Purpose of Revision	Eff. Date
1	Change signatory name. Minor edits to responsibilities in Sections 3.2, 3.3, and 3.4. Incorporate new document number.	7/14/16

	Bloodborne Pathogens Exposure Control Plan		Revision: #1
	Document Control Number: 75W-06.0-02		Date: 5/8/16
SAF Procedure	Responsible Organization: WCF/Facilities Division /EHS Branch		
	Approved By: Virginia Baldwin		Signature: <SIGNED>

1.0 Purpose

To establish a written exposure-control plan, in accordance with OSHA standard 29 CFR 1910.1030.

2.0 Scope

This program covers Bureau of Engraving and Printing (BEP) Western Currency Facility employees with potential occupational exposure to bloodborne pathogens. This policy and procedure includes requirements for personal protective equipment, engineering controls, housekeeping procedures, training, exposure reporting and recordkeeping.

3.0 Definitions

- A. Bloodborne Pathogens: Means pathogenic microorganisms that are present in human blood which can cause disease in humans. These pathogens include, but are not limited to, Hepatitis B Virus (HBV) and Human Immunodeficiency Virus (HIV).

4.0 Roles and Responsibilities

4.1 The Environmental Health and Safety (EHS) Branch shall be responsible for:

- a. Coordinating and documenting training of BEP employees covered by this program;
- b. Making recommendations for selection of appropriate personal protective equipment (PPE) and, engineering controls (e.g. sharps containers);
- c. Investigating and recording all exposure incidents. Circumstances surrounding an incident shall be documented and analyzed in order to determine the continued suitability of this policy and procedure.
- d. Ensuring that the Health Unit (HU) contractor has a written Bloodborne pathogen program that meets the requirements of 29 CFR 1910.1030; and
- e. Ensuring that the HU performs the duties assigned to the HU in this procedure.

4.2 Supervisors of each employee covered in the scope shall:

- a. Read and understand the provisions of this policy and ensure provisions necessary for implementation of this standard are available to employees at no cost;
- b. Ensure all affected employees participate in scheduled training sessions at the time of initial assignment and annually thereafter;
- c. Ensure use of appropriate Personal Protective Equipment (PPE);
- d. Ensure all potential exposure incidents where an employee did not use required PPE are investigated;
- e. Ensure PPE used by the employee is laundered, cleaned, disposed of, or repaired/replaced at no cost to the employee; and
- f. Ensure the exposure incident is reported and investigated by the EHS Branch.

4.3 Each BEP employee covered by this procedure shall ensure that he or she:

- a. Understands the provisions of this policy and is steadfast in carrying out all requirements;
- b. Reports an incident of exposure to a supervisor;
- c. Wears required PPE to prevent infection during an incident for which it is reasonable to believe that an exposure could occur;
- d. Removes all soiled articles, immediately or as soon as feasible, and places them in an impermeable bag. If a garment has been penetrated with potentially infectious blood or other fluid, shower as soon as possible;
- e. Removes all PPE prior to leaving the area in which the exposure incident occurred;
- f. Does not eat, drink, smoke, apply lip balm or cosmetics, or handle contact lenses whenever conditions present a reasonable likelihood of occupational exposure to potentially infectious materials;
- g. Notifies the area supervisor in order to get the contaminated surface cleaned with a disinfectant; and
- h. Washes hands and all other affected body parts, immediately with soap and running water.

4.4 Health Unit (HU) shall be responsible for:

- a. Dispose of items contaminated by human blood or other potentially infectious materials. Responsibility is limited to items which can be contained either in a sharps refuse container or a red biohazard waste disposal bag;
- b. Provide and administer the Hepatitis B vaccine to covered employees who choose to be immunized, or have them sign a statement of declination;
- c. Create and maintain medical files for all employees covered by this procedure;
- d. In case of probable exposure, perform serologic testing for any exposed BEP employee and for the source BEP employee, if that person is available;
- e. Provide a confidential medical evaluation for any exposed BEP employee;
- f. Provide any exposed employee and the EHS Branch Manager, with a copy of a health care professional's written opinion within 15 days of completion of the evaluation;
- g. Inform each exposed employee of applicable laws and regulations concerning disclosure of the identity and infectious status of the source individual;
- h. Administer medical counseling to each exposed BEP employee; and
- i. Refer the exposed BEP employee to his or her personal physician for further evaluation and treatment if the exposed employee develops signs, symptoms, or laboratory findings compatible with a disease process related to the exposure.

4.5 The Contracting Officer's Representative (COR) for the Operations and Maintenance contract is responsible for ensuring the contractor has a written Bloodborne Pathogen program that meets the requirements of 29 CFR 1910.1030.

4.6 The COR for the Janitorial staff contract is responsible for ensuring the contractor has a written Bloodborne Pathogen program that meets the requirements of 29 CFR 1910.1030.

4.7 The COR for the EHS and HU services contract is responsible for ensuring the contractor has a written Bloodborne Pathogen program that meets the requirements of 29 CFR 1910.1030.

5.0 Exposure Control Plan

5.1 Exposure Determination:

Employees who are Police Officers are the only job classification where occupational exposure to blood or other possibly infectious materials is expected. In the process of carrying out their duties, Police Officers are required to administer first aid and other emergency medical treatment. Not every situation for which PPE will be needed can be predicted; however, situations which could result in occupational exposure to infectious materials are:

- a. The forcible apprehension of a subject, if the apprehension results in the effusion of blood or other potentially infectious materials from either the subject or the Police Officer; and

- b. Any situation in which emergency treatment of a subject results in likely contact with blood or other potentially infectious materials, including CPR procedures, needle sticks, or bandaging a wound.

5.2 Method of Compliance:

- a. Universal precautions shall be observed by all employees affected by this standard. It shall be assumed by all persons in the performance of tasks covered by this standard, that all human blood and certain human body fluids contain bloodborne pathogens. All reasonable precautions shall be undertaken to prevent contact with infectious materials.
- b. The necessity for observing universal precautions shall be stressed during training sessions. These training sessions shall take place for current employees or at the initial time of employee assignment to a position covered by this policy and at least annually thereafter.
- c. Training sessions, which include procedures to follow after an exposure incident and employee rights and responsibilities, will be provided to covered employees.
- d. All soiled laundry and biohazard waste (red bags) from the HU shall be disposed by a contract service.
- e. All medical waste sharps containers from the HU shall be disposed through a contract service.
- f. All WCF employees, under the scope of this procedure shall be offered the Hepatitis B vaccine series, at no cost to the employees. This vaccination shall be administered during the employee's scheduled work hours under the supervision of a licensed physician or other licensed health care professional and provided in accordance with the recommendations of the U.S. Public Health Service that are in effect at the time the services are administered.
- g. Employees who decline the Hepatitis B vaccination shall not be penalized for their refusal. However, these employees shall sign the Hepatitis B Declination Form. This statement shall be kept and maintained in the HU.
- h. The Hepatitis B vaccination shall be made available to each affected employee after the employee has received training as described within this document and pursuant to 29 CFR Part 1910.1030.

If an employee has medical reasons for not accepting the Hepatitis B vaccination series, and has demonstrated immunity through antibody testing, or has previously received the complete Hepatitis B vaccination series, the employee shall supply the documentation for such fact(s) or shall sign the Hepatitis B Vaccine Declination Form. The employee shall not be required to participate in a pre-screening program as a prerequisite for receiving the Hepatitis B vaccination.

- j. All employees have the right to decline vaccination. Employees who initially decline vaccination, but at a later date elect to undergo the vaccination, shall abide by the requirements established in this chapter.

Exposure Control Plan (Continued)

5.3. Engineering Controls and Work Practices:

- a. Universal precautions will be observed by all covered employees in order to prevent contact with blood or other potentially infectious materials. All blood or other potentially infectious materials will be considered infectious regardless of the perceived status of the source individual.

5.4 Personal Protective Equipment:

- a. All personal protective equipment will be chosen based on the anticipated exposure to blood or other potentially infectious materials.

5.5 Housekeeping:

- a. Decontaminate all contaminated work surfaces, tools, objects, etc. immediately or as soon as feasible after any spill of blood or other potentially infectious materials.
- b. Equipment that may become contaminated with blood or other potentially infectious materials will be examined and decontaminated before servicing or use.

5.6 Post-exposure Evaluation and Follow up:

Following the report of an exposure incident, the exposed employee shall have immediate access to confidential medical evaluation and follow-up including the following:

- a. Documentation of the route(s) of exposure and the circumstances under which the exposure incident occurred, as prepared by the EHS Branch.
- b. Identification of the source individual, unless it can be established that identification is infeasible or prohibited by state or local law. The source individual's blood shall be tested as soon as feasible after the incident and upon legal consent to determine Hepatitis B Virus (HBV) or Human Immunodeficiency Virus (HIV) infectivity.
- c. The above information regarding follow-up shall be given to the HU, which will be responsible for the exposed employee's health care consultation after the exposure incident. All medical records relevant to the appropriate treatment of the exposed employee, including vaccination status, shall be added to this documentation by the HU.
- d. The HU shall provide the employee and the EHS Branch Manager, with a copy of the health care professional's written opinion within 15 days of completing the evaluation. This written opinion shall be limited to the following information:

1. Whether or not the Hepatitis B vaccination is indicated for the exposed employee and whether the employee has received such vaccination;
 2. If the employee has been informed of the results of the evaluation; and
 3. That the employee has been informed of medical conditions which have resulted from exposure to blood or other potentially infectious materials and which require further evaluation or treatment.
- e. All other findings shall remain confidential and shall not be included in the written opinion.
 - f. The exposed employee's blood shall be collected and tested as soon as feasible after an incident and after consent is obtained.
 - g. The source individual's blood shall be collected and tested as soon as feasible after an incident and after consent is obtained.
 - h. The HU shall administer medical counseling to the exposed employee.
 - k. Post-exposure evaluation and follow-up, including Hepatitis B vaccination, shall be made available at no cost to the employee during his or her scheduled work hours. It should be made under the supervision of a licensed physician or other licensed health care professional and in accordance with the recommendations of the U.S. Public Health Service.

6.0 Recordkeeping

- 6.1 All records required by this procedure shall be available for examination to the Assistant Secretary of Labor for Occupational Safety and Health or a designated representative and to the Director of the National Institute for Occupational Safety and Health, U.S. Department of Health and Human Services, or a designated representative. Additionally, medical records shall be available to the subject employee or anyone having written consent from the subject employee.
- 6.2 Medical Records. A medical record for each employee covered by this procedure shall be maintained. This record is to be kept confidential and under the domain of the HU. This record will not be disclosed or reported without the employee's expressed written consent to any person outside the workplace except as required by law. The employee record shall include the following information:
 - a. The name and social security number of the employee;
 - b. A copy of the employee's Hepatitis B vaccination status, including the dates of all Hepatitis B vaccinations, and any medical records relative to the employee's ability to receive vaccination. If the employee has refused the vaccination, the required signed statement must be included in the record;
 - c. All post-exposure investigation, documentation and follow-up procedures;

- d. A copy of all information provided to the HU by the EHS Branch; and
- e. All medical records must be maintained for at least the duration of employment of the affected employee plus 30 years.

7.0 Related Documents:


The following forms are available in the Health Unit:

Hepatitis B Vaccine Consent Form

Hepatitis B Declination Form

Consent for the Release for Medical Records

Rev #	Purpose of Revision	Effective Date
1	Procedure number changed from 75.00-SAF-032-FW to 75W-06.0-02 as part of the procedure renumbering format; complete rewrite of procedure	5/8/16

	Automated External Defibrillators		Revision: #1
	Document Control Number: 75.00-SAF-048-FW		Date: 12/14/15
EMS PROC	Responsible Organization: WCF EHS Branch		
	Approved By: Virginia Baldwin	Signature: <SIGNED>	

1.0 Purpose:

The purpose of this procedure is to outline the requirements for training, maintenance and deployment of Automated External Defibrillators (AED's) at the Western Currency Facility.

2.0 Scope:

This procedure applies to all personnel trained to use the AED at the WCF.

3.0 Responsibilities:

- 3.1 EHS Branch Manager – Responsible for obtaining a medical review of all cases where an AED is used, and file all necessary documentation to comply with State law when required.
- 3.2 Federal Occupational Health (FOH) AED Program Coordinator – Responsible for providing the AEDs, ordering training materials, coordinating and tracking training, forwarding training credentials to all AED trained responders. FOH AED Program Coordinator also ensures that daily and monthly checks are performed and documented as described in section 4.0 on the AEDs in the Fitness center and in the Health Unit.
- 3.3 Police Inspector - Responsible for ensuring that daily and monthly checks are performed and documented as described in section 4.0 on the AEDs in the Police Communication Center, the Visitor Center and the Federal Reserve Vault shipping area.
- 3.4 AED Responders – Participate in initial and refresher AED training courses and to follow appropriate protocol in the event of a cardiac emergency. At the WCF, AED Responders include Police Officers, FOH Safety Specialists, and Health Unit Staff.

4.0 Procedures:

4.1 Maintenance of AED Units:

Daily: Check the status indicator. Daily checks are only required if the area where the AED is staged is staffed. Daily checks are recorded on the AED Maintenance Checklist referenced in Section 7.1 of this procedure.

Monthly: Complete the monthly checklist on the AED Maintenance Checklist referenced in Section 7.1 of this procedure.

4.2 Activation of the AED Response Team:

In any potentially life-threatening emergency, the Police Communication Center is contacted at extension "0". The Police Communication Center will immediately dispatch a Police Officer with an AED and contact the Health Unit (ext. 3844).

Immediately upon being informed of the emergency, a Health Unit nurse will bring the Health Unit AED to the site of the emergency. If the emergency is in a secured area, a Police Officer will escort the nurse to the emergency site.

Whichever AED trained personnel arrives at the scene of the emergency first will assess the situation. If AED use is indicated, the AED trained personnel, with assistance from other AED trained staff (if available), will administer the AED along with CPR according to established protocols until local Emergency Medical Services (EMS) professionals arrive and assume care of the victim.

If a life-threatening emergency occurs at a time that the Health Unit or EHS is not staffed, an AED trained Police Officer from the Command Center will bring the AED unit to the emergency site. If warranted, the Police will administer the AED and CPR according to established protocols until local Emergency Medical Services (EMS) professionals arrive and assume care of the victim.

4.3 AED Protocol:

Upon arriving at the victim, Health Unit Staff or other AED Responders will:

- Assess the safety of the situation and environment.
- Assess the victim.
- Verify that local Emergency Medical Services has been activated.
- Proceed with American Heart Association's CPR protocols and AED Treatment Algorithm as indicated.

4.4 Post Incident Procedures

- After the victim has been appropriately transferred to the local EMS professionals' care, notify the FOH AED Program Coordinator.
- Complete an incident report documenting the occurrence. See section 7.2 of this procedure.
- Hold an incident review for all AED providers involved.

5.0 Training Requirements:

Personnel who are authorized to use AEDs must successfully complete an initial cardiopulmonary resuscitation (CPR) course and a course in the use of the AED. Refresher training is required every 2 years.

6.0 Record Keeping Requirements:

All training records, maintenance records, and critical incident records will be kept by the FOH AED Program Coordinator. The retention period is a minimum of two (2) years.

7.0 Related Records:

The following forms are supplied by FOH:

7.1 AED Maintenance Checklist Form

7.2 Event Documentation Form

Document Revision History

Revision #	Purpose of Revision	Effective Date
1	Delete reference to the Fitness Center; change name of Police Command Center to Police Communications Center.	12/14/15

EMERGENCY ACTION and FIRE PREVENTION PLANS



**Bureau of Engraving and Printing
Washington, D. C. Facility**

75D-04.0-01

Rev #5

04/21/14

Information in printed paper copies of this document and any document referred to herein is guaranteed valid for only 24 hours of the print date.

This document serves as BEP's Emergency Action Plan (EAP) and Fire Prevention Plan (FPP) in accordance with OSHA standards. It applies to all Bureau staff, contractors, visitors, facilities, equipment, and materials. All employees, offices, and directorates are responsible for fully complying with the policies and procedures contained in this document.

<SIGNED>

Neal Mohlmann

Chief, Office of Environment, Health and Safety

EMERGENCY ACTION AND FIRE PREVENTION PLAN

1.0 Purpose:

This document serves as BEP's Emergency Action Plan (EAP) and Fire Prevention Plan (FPP) in accordance with OSHA standards. An EAP details the actions employees are to take in the event of an emergency. A FPP is intended to educate employees about the specific hazards of their jobs and is an extension of the EAP.

2.0 Scope:

This plan applies to all emergency evacuations and fire prevention activities within the DCF. It applies to employees, on-site contractors and visitors at the DCF.

EMERGENCY ACTIONS AND EVACUATIONS

1.0 REPORTING AN EMERGENCY - CONTACT CPOC ON 4-0911

To report emergencies of any kind, contact the Centralized Police Operations Center (CPOC) on 874-**0911** or by using the Emergency Fire Phones located in each stairwell on most floors. These phones connect directly to the CPOC, and can be used by all personnel to report emergencies or request evacuation assistance.

2.0 Fire Response:

2.1 FIRE EXTINGUISHER USE:

Employees that have received training are permitted to use fire extinguishers if they so choose. Employees receive annual training to familiarize themselves with the general principles of fire extinguisher use and the hazards involved with incipient stage fire fighting. No employee is required to use a fire extinguisher to put out a fire.

2.2 FIRE EXTINGUISHER INSPECTIONS:

The OFS conducts annual maintenance checks of fire extinguishers and ensures that hydrostatic testing is performed as required per 29 CFR 1910.157. Supervisors or their designee are responsible for visually inspecting fire extinguishers and initialing/dating tags in their areas of responsibility on a monthly basis. OFS and OEHS are responsible for visually inspecting fire extinguishers and initialing/dating tags in common areas on a monthly basis.

3.0 Emergency Evacuation

Upon hearing activation of the building-wide fire alarm or being advised to evacuate by a supervisor, police officer, or safety and health official, all employees, except those classified as essential personnel, are to immediately evacuate the building according to the following procedures:

- 3.1** Close all doors and windows in your area;
- 3.2** Using the nearest stairway (**NOT** elevators), exit the building without delay; and
- 3.3** Once outside, assemble at the pre-assigned assembly areas for your office and report to your supervisor (see Appendix A for assembly areas).
- 3.4** Stairwells in both buildings have been designated as refuge areas, and are designed to temporarily hold any employee or visitor who cannot evacuate the building by means of the stairs during an emergency due to an injury or physical limitation.

If you have a permanent or short term disability that could hamper your ability to evacuate the building during an emergency or that prevents you from taking needed action to protect your own safety, you are encouraged to self-identify to the Office of Equal Opportunity & Diversity Management and the Office of Human Resources. These offices will ensure your needs are included in the emergency planning process.

- 3.5** Each designated stairwell is marked and contains emergency phones that allow direct contact (no dialing) to the CPOC. Pick up the phone and it will automatically connect you to CPOC. When you hear a voice YOU MUST "KEY" THE PHONE BY DEPRESSING THE BUTTON ON THE RECEIVER TO SPEAK.
- 3.6** Personnel can use the phone for any emergency (smoke, fire, medical, spills, etc.).
- 3.7** Employee evacuation from a refuge area will be based on the site hazard assessment made by either the fire fighters or other emergency responders during their assessment of the current incident.
- 3.8** **If you are involved in an actual fire or if you discover fire or smoke or heat that is unaccounted for, remember "RACE." The following four steps are to be followed in order:**
 - a.** Remove people in a life-threatened situation. If a person is overcome by smoke or for other reason needs to be immediately removed from the fire-involved area, try to help without putting your own life in danger. Close door to fire-involved room, if possible;
 - b.** Alarm – Sound the alarm as follows:

Pull the nearest manual pull station (if the alarm is not already sounding). These are located near every stairwell door and at midpoints in long corridors;

Call CPOC to report the fire. Either call x **40911** or use a phone in the refuge area of a stairwell. Tell the Officer the size and nature of the fire, exact location of the fire, if any people are in danger, and any other pertinent information. DO NOT hang up on the Officer as they may have specific questions;
 - c.** Close all doors in the fire-involved area. If you are not at the site of the emergency, but are ordered to evacuate, close all doors and windows before you leave; and

- d. **Evacuate the building according to the evacuation procedures listed below.**

4.0 Evacuation Drills:

Evacuation drills will be held with sufficient frequency to familiarize occupants with evacuation procedures in each building. In the conduct of drills, emphasis shall be placed on orderly evacuation rather than on speed. Drills are coordinated by OEHS, in conjunction with OS and OFS.

5.0 Accounting for All Employees After an Evacuation:

Each supervisor, or their designee, shall account for his/her employees at the designated assembly area until the emergency/drill is over and an announcement is made that the building can be reentered. Each supervisor or their designee shall inform the nearest BEP Police Officer if any personnel are unaccounted for when the evacuation is completed. To the extent possible, supervisors or their designees shall keep employees together in case additional relocation instructions are given by emergency management personnel.

6.0 Sheltering in Place (SIP)

SIP has become a widely accepted and recommended approach to a variety of known and unknown external threats such as severe weather, earthquakes, chemical spills, bomb threats, and terrorist attacks. SIP is recommended by the American Red Cross, OSHA, EPA, DHS, CDC, USDA, and other key agencies as an appropriate strategy to harbor employees during emergencies.

During situations in which evacuation of the building(s) could be more hazardous to employees than remaining in the building(s), employees will be directed to shelter-in-place. This announcement will be issued over the BEP fire management system or through alternate means.

Shelter in Place Assembly Areas:

Assigned Duty Station	SIP Location
Annex Basement and Floors 2,3,4,5,6,7	Center corridor of building on assigned floor
Annex First Floor/Loading Dock	Second Floor Corridor
Main Building All Floors	Center corridor of building on assigned floor

Each supervisor, or their designee, shall account for his/her employees at the designated assembly area until an announcement is made to return to normal duty stations. Each supervisor or their designee shall inform the nearest BEP Police Officer if any personnel are unaccounted for. Employees that cannot

reach their designated SIP assembly area shall assemble in the nearest SIP location and notify an available BEP Police Officer or their supervisor, if possible.

6.1 Severe weather (i.e., hurricanes, tornadoes, floods, snow storms, etc.)

- a. Should weather conditions appear threatening, adhere to ALERT WARNINGS. Look for early dismissal, delayed opening, facility closures, and traffic notifications.
- b. Immediately react to emergency instructions provided over the voice notification system.

6.2 Earthquake

- a. Take cover immediately. Get under a desk or table, or stand in a doorway or corner. Stay clear of windows and heavy items that could fall or tip over. Stay there until the initial shaking stops and be alert for aftershocks.
- b. Do not attempt to evacuate the building unless prompted by the voice notification system or told to do so by a supervisor, police officer, emergency management or safety official.
- c. If prompted to evacuate follow emergency evacuation procedures outlined in section 3.0 of this document. Proceed to your assembly area and await further instructions from the police or other emergency management personnel.
- d. Report any significant damage, potential hazards, and location of any injured occupants observed during the evacuation to police or emergency management personnel.
- e. If outside during an earthquake, attempt to get into the open. Do not put yourself in harm's way but try to get away from buildings, trees, walls, poles, and power lines.
- f. Do not attempt to reenter the building unless a structural examination has occurred and an official all clear signal has been given.

7.0 Individual Critical Plant Operational Procedures are contained in Appendix B.

8.0 Employees Performing Medical or Rescue Duties:

Employees are not required to conduct rescue or medical duties. Employees are required, at a minimum, to render assistance to building occupants that require medical assistance or rescue by contacting the CPOC on 4-0911.

9.0 VOICE NOTIFICATION SYSTEM

Main and Annex Buildings – During an actual emergency, the voice evacuation system will be sounded in all areas as an audible signal tone, followed by a voice message with information concerning the emergency.

FIRE PREVENTION PLAN

1.0 The Fire Prevention Plan (FPP) is intended to provide employees with basic information on the major fire hazards and control methods at the BEP in accordance with 29 CFR 1910.39. For more information, contact the Office of Environment, Health & Safety at 874-2404.

1.1 The following table details DCF's major fire fuel source hazards, their proper storage and handling, and available fire control equipment:

Fuel Source Hazard	Proper Storage & Handling	Fire Control Equipment
Accumulation of ordinary combustibles, such as paper, cardboard, office trash, other combustible wastes.	Daily housekeeping activities to remove these items from the workplace; Intrinsically safe dust collection and vacuum systems; Periodic inspections to ensure adequate housekeeping.	Multipurpose dry chemical fire extinguisher; Automatic sprinkler systems in both buildings.
Flammables and combustible liquids – high volatile organic compound cleaners, such as Varsol, or reagents in sections, mills, and laboratory areas, gasoline and diesel fuel in maintenance areas.	Store in approved containers in flammable storage cabinets or flammable storage rooms.	Multipurpose dry chemical fire extinguisher; Automatic sprinkler systems in sections, mills, shops, and flammable storage rooms.
Flammable solvent waste.	Store in approved waste containers; Weekly inspections of accumulation areas and regularly scheduled removal to the Hazardous Waste Storage Area.	Multipurpose dry chemical fire extinguisher; Automatic sprinkler system.
Compressed gas cylinders-acetylene and propane tanks.	Store in approved area; Regularly inspect cylinders, tanks and fittings for damage or leaks. Comply with Compressed Gas Association (CGA) guidelines for storage and handling.	Multipurpose dry chemical fire extinguisher; Automatic sprinkler system.
Diesel fuel tanks for emergency generator and fire pumps.	Tanks are double walled and inspected periodically.	Multipurpose dry chemical fire extinguisher; Automatic sprinkler system.

1.2 DCF's major potential fire ignition sources and their control procedures:

Ignition Source	Control Procedure
Energized electrical equipment.	Do not store flammable and combustible materials in close proximity to energized electrical equipment.
Hot Work, such as welding, grinding, soldering, similar operations producing heat, spark, or flame.	Follow the requirements specified in Burn Permits issued by the OEHS.
Laboratory operations involving heat or flame producing equipment.	Follow the manufacturer's recommendations for equipment use and maintenance. Keep flammable and combustible materials away from heat or flame producing equipment.
Cooking and food warming equipment.	Potential fires in the food preparation area are controlled by installed wet chemical suppression system, along with an automatic sprinkler system.
Smoking	No smoking is allowed in BEP buildings.

1.3 Personnel responsible for maintenance of fire suppression systems:

Testing and maintenance of portable fire extinguishers, fire detection and alarm systems, and fire suppression systems are performed by the Office of Facilities Support through contract vendors specializing in these activities. The Office of Facilities Support annually inspects and services all portable fire extinguishers. The Office of Environment, Health & Safety conducts periodic fire prevention inspections.

1.4 Personnel responsible for controlling fire fuel source hazards:

Supervisors at all levels are responsible for the control of fuel source hazards in their area of responsibility. Employees are also responsible for maintaining a fire-safe work environment and reporting any unsafe conditions to their supervisor. In addition, periodic fire prevention inspections are performed by OEHS to assist supervisors and employees in identification of potential fuel source hazards.

TRAINING AND CONTACTS

1.0 Training:

BEP must train each employee covered by the plan when: 1) the employee is initially assigned to a job, 2) the employees' responsibility under the plan change, and 3) the plan is changed.

2.0 Contacts:

The following officials can be contacted for additional information:

Chief, Office of Environment, Health & Safety
Work Number: (202) 874-2048

Chief, Office of Security
Work Number: (202) 874-4020

Manager, Safety and Health Division
Work Number: (202) 874-2463

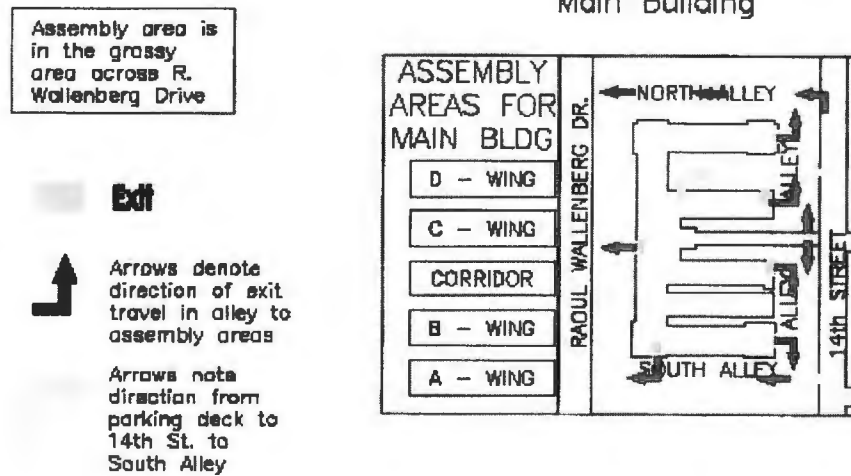
Commander, Police Operations Division
Work Number: (202) 874-3443

Emergency Management Specialist, Office of Security
Work Number: (202) 874-2849

Chief, Office of Facilities Support
Work Number: (202) 874-2606

Appendix A

Evacuation Assembly Areas— Main Building



Evacuation Assembly Areas— Annex Building

Assemble on
sidewalk

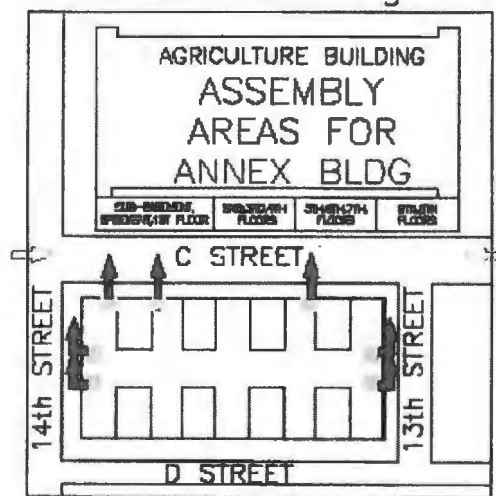
See supervisor
for specific
assembly area



Arrows denote
direction of exit
to Assembly
Areas



Exit Doors



C:\ppl\ppl\77402\Current_Report\13-05-000-Report_for_Building/Fire_Losses\Fire_Loss_Report_Annex_Building.dwg, 10/26/2017 2:25:02 PM

Information in printed paper copies of this document and any document referred to herein is guaranteed valid for only 24 hours of the print date.

REVISION	PURPOSE OF REVISION	EFFECTIVE DATE
1	Replace Appendix B, SOCC Memo, which contained procedural errors.	6/25/07
2	Add supervisor responsibilities of fire extinguisher inspections and update emergency evacuation procedures	8/11/09
3	Update critical plant operations procedural memos, assembly maps, and emergency response procedures.	8/31/12
4	Change emergency contact number from 874-7400 to 874-0911 per DO mandate.	7/3/13
5	Changed Document Numbers	4/21/14



DEPARTMENT OF THE TREASURY
BUREAU OF ENGRAVING AND PRINTING
WASHINGTON, D.C.

July 2, 2013

MEMORANDUM FOR: WASTEWATER PRETREATMENT PLANT (WWPP) PERSONNEL
MAIN BUILDING BETWEEN C & D WINGS

FROM: Myron N. Hodge, Environmental Protection Specialist
Office of Environment, Health and Safety

SUBJECT: Emergency Evacuation Procedures for WWPP Personnel

Fire evacuation shall be carried out in one of the following scenarios.

1. **Fire Alarm Sounds in the Main Building.** When fire alarms sound in the Main Building, the personnel shall confirm through the CQR/Fire Safety Office/CPOC that it is a
 - a. Fire Drill,
 - b. Fire in the Main Building not near the WWPP,
 - c. Fire near the WWPP,
 - d. Fire inside of the WWPP,
 - e. Shelter-In-Place Drill,
 - f. Shelter-In-Place emergency,
 - g. Other Emergency

and according to the determination, follow the corresponding procedures.

- a. **Fire Drill.** When there is a fire drill in the Main Building, the two senior personnel shall stay, and the remaining personnel shall evacuate to the 15th Street staging area. The most junior personnel will account for all WWPP personnel that evacuated to the 15th Street staging area at BM-9.
- b. **Fire in the Main Building not near the WWPP.** When there is a fire in the Main Building not near the WWPP, the two senior personnel shall stay, and the remaining personnel shall evacuate to the 15th Street staging area. The most junior personnel will account for all WWPP personnel that evacuated to the 15th Street staging area at BM-9.
- c. **Fire in the Main Building near the WWPP.** When there is a fire in the Main Building near the WWPP, then all personnel shall proceed in emptying T1 in the WSWPP and shutting down the WSWPP and shutting down the PWPP. When

both plants are shut down then all personnel shall evacuate to the 15th Street staging area and the most junior personnel will account for all WWPP personnel.

- d. Fire inside the WWPP. If there is a minor fire in the plant, the personnel in the plant will attempt to contain and extinguish the fire, and also pull the local fire alarm and begin the shutdown procedures for the WWPP. If the personnel are able to contain the fire in the plant, CPOC will again be notified and an incident report will be generated. If the personnel are not able to contain the fire in the plant, they will advise CPOC and evacuate the WWPP. The personnel will assemble at 15th Street near BM-9. The most junior personnel will account for all WWPP personnel.
- e. Shelter-in-place Drill. When there is a drill in the Main Building, the two senior personnel shall stay, and the remaining personnel shall evacuate to the center corridor of the Basement. The most junior personnel will account for all WWPP personnel that evacuated to the corridor.
- f. Shelter-in-place emergency. WWPP personnel will perform shutdown procedures and immediately evacuate the WWPP to the center corridor of the Basement. The most junior personnel will account for all WWPP personnel that evacuated to the corridor.
- g. Other Emergency. WWPP personnel will perform shutdown procedures and immediately evacuate the WWPP the appropriate location based on the directions provided. The most junior personnel will account for all WWPP personnel that evacuated.

DEPARTMENT OF THE TREASURY
BUREAU OF ENGRAVING AND PRINTING
WASHINGTON, D.C. 20228

DATE: June 26, 2013

MEMORANDUM FOR: Power Plant Personnel, Room 19-2M

FROM: William A. Turner Jr., Chief Stationary Engineer

SUBJECT: Emergency Evacuation Procedures for Power Plant Personnel

In the event of a BEP emergency evacuation, Power Plant personnel are to adhere to the following procedures;

The Power Plant supervisor(s) on duty shall contact the Central Police Operations Center (CPOC) on 4-1234 to determine the nature of the emergency, and verify the Power Plant contact phone number 4-2080. The Power Plant Supervisor will also verify with CPOC the location and cause of the emergency. All Power Plant Stationary Engineer's on duty at the time of the emergency will be contacted by the Power Plant supervisor(s), and instructed to report to the Power Plant, room 19-2M. The supervisor will then record all personnel on duty in the Power Plant's "Fire drill / Emergency Accountability log." Constant communication to insure coordination of tasks will occur during the duration of the emergency between Power Plant and CPOC personnel. During an emergency evacuation of the BEP, the Power Plant will provide portable radios to personnel who will be shutting down or placing various infrastructure systems in a "safe" condition.

Critical Task's to be carried out are listed below;

1. Establish communication control in the Main and Annex Buildings, and coordinate Power Plant response and required tasks with CPOC, and the Emergency Evacuation Team.
2. Identify which systems will have to be shut down or placed in a "safe" condition (i.e. elevators, water, steam, gas, electric, HVAC systems, etc.), and establish an approximate time line regarding how long it will take to safely secure the various systems.
3. During the emergency, identify personnel that will remain in the building (Main and / or Annex).
4. Insure Personal Protective Equipment (PPE) required is readily available to Power Plant personnel during an emergency such as but not limited to;

Radios
Boots
Coats
5. Once the emergency event is over, Power Plant personnel will assist CPOC, and the Emergency Evacuation Team restoring the BEP back to normal operation.

**BUREAU OF ENGRAVING AND PRINTING
CENTRAL POLICE OPERATIONS CENTER (CPOC)
GENERAL ORDER NO. 106
STANDARD OPERATING PROCEDURE (SOP) NO. 10**

November 30, 2012

EMERGENCY EVACUATION PROCEDURES

INTRODUCTION

The Central Police Operations Center (CPOC) operators/dispatchers, under the direct supervision of the CPOC Sergeant, shall continuously administer, operate and monitor BEP security systems and perform various tasks related to CPOC during both routine and emergency situations.

These tasks include but are not limited to the following: operate and monitor communications equipment to provide prompt and effective responses to calls for service; operate and monitor security systems equipment to provide prompt and effective responses to alarms, monitor and assess suspicious or unusual activities; monitor and assess perimeter and other designated closed circuit television cameras (CCTV) for suspicious activity; receive and transmit radio and telephone messages from and to police units in accordance with standardized procedures; receive telephone calls for service and inquire and dispatch officers and respond per procedures; operate local and National Crime Information Center (NCIC) terminal to transmit and receive messages; notify appropriate authorities in other BEP departments of situations requiring attention after regular business hours and operate the Dispatcher Log ensuring that all fields are appropriately filled in with required data.

PURPOSE

The CPOC operators/dispatchers, under direct supervision of the CPOC Sergeant, are responsible for processing and assessing all communications/alarms coming into and leaving the CPOC. During emergency evacuation situations, CPOC operators will remain in CPOC and continue to receive, transmit communications, process information and monitor equipment until directed by the CPOC Sergeant or other authority to evacuate from the area.

PREREQUISITES

- 1) Training on MDI processing of alarms.
- 2) Training on CPOC processes and procedures.
- 3) Additional training to be determined.

PROCESS

1. During an emergency, CPOC operators will remain in CPOC and continue to dispatch, coordinate personnel, receive/provide communications, process information and monitor equipment. CPOC operators are required to utilize the emergency notification sheets to capture pertinent information for any and all types of incidents. In addition they should document all dispatches on the Dispatcher Log. The time and type of alarms received should be documented, officer dispatched, mobile dispatches, traffic stops and the

disposition, emergency notifications, the disposition of all dispatches, the results of all NCIC/WALES checks, the emergency vehicle numbers and arrivals for later reports.

2. When directed by the CPOC Sergeant, operators will announce, via radio, that all officers not currently on assignment should report to the CPOC. Based on the situation the CPOC operators may elect to dispatch officers from the field prior to them responding to CPOC.
3. The operator will dispatch police officers to any additional areas, as directed by the CPOC supervisor.
4. When section supervisors state that all personnel are accounted for in the staging areas, personnel will be cleared to return to the building. The authorization to give the "ALL Clear" and return personnel to the BEP must come from the Safety Representative, OS Chief, Commander or their designee.
5. When directed by the CPOC Police Sergeant, the operator will dispatch officers to check and secure emergency exit doors, release the elevators etc.

APPROVAL: This Standard Operating Procedure is effective upon the signed approval of the Commander, Police Operations Division or his designee this day November 30, 2012.


Anthony J. Holloway
Commander



DEPARTMENT OF THE TREASURY
BUREAU OF ENGRAVING AND PRINTING
WASHINGTON, D.C. 20228

June 5, 2013

**MEMORANDUM FOR JOHN ROBERTS, MANAGER
SAFETY AND HEALTH DIVISION**

FROM: Leticia Byrd, Program Analyst *Leticia Byrd*
Safety and Health Division

SUBJECT: BEP Medical Clinic Emergency Evacuation Procedures – Room 303M

In the event of an emergency that requires evacuation, the medical staff shall report to the following assembly areas and follow these written procedures:


Main Building

Raoul Wallenberg Place (15th Street)
Assembly on grassy area across from the BEP's Visitor Center entrance

Procedures

1. Provide appropriate care and evacuation for any employees in the Health Unit at the time of the fire emergency.
2. If transport assistant is required, then call CPOC (4-0911) and advise them that the Health Unit is being evacuated and that patient assistance is required. State number of patients that require assistance.
3. Evacuate the Health Unit staff by the designated/appropriate route to the designated area listed above. Additionally, notify BEP Police of your location and availability.
4. Assist EMS personnel, if requested, but do not re-enter the building until the all-clear instruction is given.

Rev. 06/05/13

	Fire Drill Evacuation		Revision: #3
	Document Control Number: 75D-04.0-02		Date: 2/5/2016
PROC.	Responsible Organization: Office of Environment, Health and Safety		
	Approved By: Neal Mohlmann	Signature:	

1.0 Purpose:

The purpose of emergency evacuation and relocation drills is to educate occupants in the fire safety features of the building, the egress available, and the procedures to be followed therein. Careful planning and practice of these drills will prepare building occupants to properly execute orderly evacuations during fires and other emergency situations. This document outlines the roles and responsibilities of BEP components and personnel in the conduct of fire/emergency evacuation drills.

2.0 Scope:

This procedure applies to all employees at the Bureau of Engraving and Printing's Washington, DC Facility (DCF).

3.0 Definitions:

Authority Having Jurisdiction (AHJ) –

an organization, office, or individual responsible for enforcing the requirements of a code or standard, or for approving equipment, materials, an installation, or a procedure.

Emergency Action and Fire Prevention Plan (EAP/FPP) –

an EAP details the actions employees are to take in the event of an emergency. An FPP is intended to educate employees about the specific hazards of their jobs and is an extension of the EAP.

Egress Route –

route employees are directed to follow in the event they are required to evacuate the workplace or seek a designated refuge area.

Means of Egress –

a continuous and unobstructed way of exit travel from any point in a building or structure to a public way and consists of three separate and distinct parts: the way of exit access, the exit, and the way of exit discharge.

Exit –

portion of a means of egress which is a protected path of travel including an enclosed stairway in a multilevel building.

Exit Discharge –

that portion of a means of egress between termination of an exit and a public way.

Obstructed Egress –

unclear or blocked egress paths.

Unobstructed Egress –

clear egress path.

Area of Refuge –

a space located in a path of travel leading to a public way that is protected from the effects of fire, either by means of separation from other spaces in the same building or by virtue of location, thereby permitting a delay in egress travel from any level. Areas of refuge at DCF are in most stairwells.

Assembly/Relocation Area –

a predetermined location where building occupants assemble and remain until a recall “all clear” signal is given.

4.0 Roles and Responsibilities:

4.1 The Office of Environment, Health and Safety (OEHS) shall:

- a. Serve as the Authority Having Jurisdiction (AHJ) in determining procedural and administrative requirements for evacuations;
- b. Review and update the EAP/FPP and fire drill procedures, as necessary;
- c. Develop and update evacuation training modules as procedures change;
- d. Coordinate evacuation drills with appropriate BEP components and external agencies; and
- e. Review lessons learned from previous drills and determine appropriate corrective actions.

4.2 Office of Security (OS) shall:

- a. Conduct, at minimum, quarterly checks/tests of operability of all exterior exit doors and refuge phones in stairwells;
- b. Follow all internal standard operating procedures before, during and after drills;
- c. Assign/dispatch police officers to assist with traffic while building occupants cross streets, etc., where possible;

- d. Assign/dispatch police officers to relay information of unaccounted persons from supervisors to CPOC and from CPOC to first responders; and
- e. Have police officers give the "all clear" announcement once the building has been fully evacuated, occupants have been safely accounted for, and the conditions for reentry have been met.

4.3 Office of Facilities Support (OFS) shall:

- a. Ensure all fire management system/life safety components are in proper working order prior to scheduled fire drills; and
- b. Provide email notifications to BEP employees, contractors, and OHR of any temporary system/refuge phone impairments or egress/exit/stair closures prior to drills.

4.4 Office of Human Resources (OHR) shall:

- a. Provide EAP/FPP training to all employees and contractors through the Treasury Learning Management System (TLMS) or other more conventional means;

4.5 The Office of External Relations shall:

- a. Ensure contract tour guides receive emergency evacuation refresher training at least annually;
- b. Have tour guides follow all security and safety procedures specified in the training and other policy documents;
- c. Instruct tour guides to never leave tourists in refuge areas or in other parts of the building by themselves; and
- d. Account for all visitors once outside the building.

4.6 Contracting Officers Representatives shall:

- a. Ensure onsite contractors and sub-contractors understand what to do during emergency evacuations and where to assemble;
- b. Ensure contractors and sub-contractors comply with the BEP evacuation drill requirements; and
- c. Maintain a list of contractor and sub-contractor names to account for them at specified assembly areas.

4.7 Supervisors or their designees shall:

- a. Ensure employees receive EAP/FPP training;

- b. Discuss the emergency action roles with employees so all employees know exactly what to do during an evacuation;
- c. Ensure evacuation shutdown and security procedures are followed, persons who are not physically able to exit the building are assisted to refuge areas, and that the area is completely cleared in a timely manner;
- d. Discuss where to specifically meet in pre-assigned assembly area; and
- e. Account for employees and report any unaccounted employee to Police Officers.

4.8 Employees and contractors shall:

- e. Take EAP/FPP training as scheduled;
- f. Understand their roles in the evacuation process and present any questions to supervisor, COR or the OEHS;
- g. Become familiar with buildings exits, egress routes, and pre-assigned assembly locations;
- h. Participate in fire drill evacuations;
- i. Know where exit discharges are located;
- j. Follow designated routes to assembly areas once outside the building;
- k. Follow directions from supervisor, COR, police officer, and/or safety officials;
- l. Gather at pre-assigned assembly areas;
- m. Find and immediately check-in with supervisor, COR or selected designee;
- n. Inform police officers of your presence if supervisor/designee/COR is not present at assembly area; and
- o. Report any observed life safety system deficiency, missing personnel, or safety/security threat to the police, supervisor/designee, or COR.

5.0 Procedures:

Evacuation drills will be held with sufficient frequency to familiarize building occupants with evacuation procedures.

5.1 Pre-Drill Actions

- a. OFS shall provide OEHS with a fire management system status report.

- b. OS shall provide OEHS with exterior exit doors and refuge phone report.
- c. OFS shall inform DCF of FMS/refuge phone impairments and temporary exit/egress/stair closure notifications, etc.
- d. OEHS shall conduct walk-through of egress routes.
- e. OEHS shall contact neighboring agencies and local authorities.
- f. Where possible for semi-announced drills, OS or OEHS shall send a notification through the BEP Alert Distribution System or alternate means at the start and end of drills.

5.2 Alarm Activation

- a. OEHS shall activate a manual pull station in the Main or Annex Building and note time it takes for building to alarm.
- b. Once the pull station signal is received, CPOC shall sound the building alarm to evacuate and to dispatch officer(s) to pull station location.
- c. CPOC shall execute fire drill procedures in accordance with the approved operating procedure.

5.3 Building Evacuation

- a. All building occupants, except those considered essential personnel, are to immediately evacuate the building according to the EAP/FPP and the requirements in this policy.
- b. Speed in emptying buildings or relocating occupants, while desirable, is not the only objective. Emphasis shall be placed on orderly evacuations rather than on speed.

5.4 Refuge Areas –

Supervisors or their designee shall assist or assign physically capable persons to assist with getting employees with physical limitations into refuge areas. Stairwells in both buildings have been designated as refuge areas.

5.5 Assembly Areas (See DC EAP Appendix A for more details).

- a. Main Building – Building occupants are to relocate/assemble in the field across Raoul Wallenberg Drive.
- b. Annex Building – Building occupants are to relocate/assemble on the sidewalk in front of the Agriculture Building across C Street.

5.6 Communications/Accountability System:

- a. Supervisors, CORs or their designee shall account for his/her employees at the designated assembly area.
- b. Supervisors, CORs or their designee shall verbally report missing employees to the nearest BEP police officers.
- c. BEP police officers shall relay the missing person information via radio to the CPOC.
- d. The CPOC shall verify the missing persons report through officers in the field and dispatch appropriate first responders to refuge areas.

6.0 Related Documents:

Emergency Action and Fire Prevention Plan 75D-04.0-01

BEP Police General Order No. 323 Exterior/Emergency Door and Stairwell Phone Inspection
Policy Series 300

BEP CPOC General Order No. 106 SOP No. 10

BEP Police Fire Management System SOP No. 23

Competency, Training, and Awareness 75D-00.0-03

7.0 Document Revision History

Rev. #	Purpose of Revision	Eff. Date
1	CPOC procedural change for the timely processing of manual pull alarms	5/9/11
2	Changed doc numbers; changed COTR to COR	4/23/14
3	Remove OHR impairment notifications to persons with disabilities	2/5/16

Main Building Door Checklist

Officer Name: _____

Date: _____

Shift: _____

Floor Level - Basement

Door Location Wing/Section or Stairwell	Door #	Does the door function properly to allow egress and/or ingress (Yes/No)?	Does the door close, latch, and lock properly (Yes/No)?	Does the door alarm announce locally (Yes/No)?	Does the door alarm announce in CPOC (Yes/No)?	Additional Notes:
D-Wing, Section #5 Rear Exit Door)	D-31					
Between C & D Wings Wastewater Perimeter Door)	8-6-2					
M13 Exterior Truck Roll Door Emergency Exit)						
D-Wing, Section 10 Rear Emergency Exit Door)	C-27 & C-28					
D-Wing Federal Reserve Vault Rear Emergency Exit Door)	8-11					
D-Wing, Section 2 Rear Emergency Exit)	36-14					
Stairwell G (Perimeter Door)	-43					
Room 36 Bailer Room (Perimeter Door)	36-2					
Room 34 Exit to Alley (Perimeter Door)						
Inside #34) Sub-Station South (Rear Perimeter Door)						
Inside #34) North (Perimeter Door)						
Inside #34) Lower Exit from Tour Gallery Perimeter Door)	-34					
8 BM-7 Trash Compactor (Perimeter Door)	-28					
4 Telephone Room Rear Emergency Exit Perimeter Door)	-24					
9-2M Steam Tunnel Hatch to Ramp BM9-N Perimeter Door)	19-2					
9-2M Steam Tunnel South to gate Perimeter Door)	19-2					
M-5 Roll Door - North (Perimeter Door)						
M-5 South (Perimeter Door)						
M-5 North (Perimeter Door)						
M-5 Roll Door - South (Perimeter Door)						

Floor Level - First

Door Location Wing/Section or Stairwell	Door #	Does the door function properly to allow egress and/or ingress (Yes/No)?	Does the door close, latch, and lock properly (Yes/No)?	Does the door alarm announce locally (Yes/No)?	Does the door alarm announce in CPOC (Yes/No)?	Additional Notes:
D-111 (Emergency Exit)	D-146					
C-100 Section #9 (Perimeter Door)						
B-100 Section #4 (Perimeter Door)						
A-100 Cope Pak (Perimeter Door)						
G Stairwell (Gallery Main Emergency Exit)						
1M-11 Tour Bridge/South Exterior (Emergency Exit Door 1)						
1M-11 Tour Bridge/North Exterior (Emergency Exit Door 2)						
1M-15 15 th Street Lobby North (Perimeter Door 1)						
1M-15 15 th Street Lobby North (Perimeter Door 2)						
1M-17 Door to Parking Deck, Area 7, (Emergency Exit Door)						

Floor Level - Second

Door Location Wing/Section or Stairwell	Door #	Does the door function properly to allow egress and/or ingress (Yes/No)?	Does the door close, latch, and lock properly (Yes/No)?	Does the door alarm announce locally (Yes/No)?	Does the door alarm announce in CPOC (Yes/No)?	Additional Notes:
D-200 (Rear Emergency Exit Door)	138-M					
C-200 (Rear Emergency Exit Door)						

Door Location Wing/Section or Stairwell	Door #	Does the door function properly to allow egress and/or ingress (Yes/No)?	Does the door close, latch, and lock properly (Yes/No)?	Does the door alarm announce locally (Yes/No)?	Does the door alarm announce in CPOC (Yes/No)?	Additional Notes:
B200 Cope Pak (Rear Emergency Exit Door)						
A-200 Mech. Exam (Rear Emergency Exit Door)						
G Stairway (Rear Emergency Exit Door)	A-207					

Floor Level - Third

Door Location Wing/Section or Stairwell	Door #	Does the door function properly to allow egress and/or ingress (Yes/No)?	Does the door close, latch, and lock properly (Yes/No)?	Does the door alarm announce locally (Yes/No)?	Does the door alarm announce in CPOC (Yes/No)?	Additional Notes:
D-300 Note Packaging (Rear Emergency Exit Door)	D-300-11					
C-300 Vacant (Rear Emergency Exit Door)						
B-300 Plant Printing (Rear Emergency Exit Door)						
A-300 Bindery/Misc. Printing (Rear Emergency Exit Door)	300-10					
G-Stairway (Emergency Exit Door)	-43					

Floor Level - Fourth

Door Location Wing/Section or Stairwell	Door #	Does the door function properly to allow egress and/or ingress (Yes/No)?	Does the door close, latch, and lock properly (Yes/No)?	Does the door alarm announce locally (Yes/No)?	Does the door alarm announce in CPOC (Yes/No)?	Additional Notes:
D-400 Cope Pak/EM Shop (Rear Emergency Exit Door)	D-400-8					
C-400 Section 6 (Rear Emergency Exit Door)	C-425 C-426					
B-400 (Rear Emergency Exit Door)						
A-400 (Rear Emergency Exit Door)						
G Stairway (Rear Emergency Exit Door)	A-400-14					

Floor Level - Fifth

Door Location Wing/Section or Stairwell	Door #	Does the door function properly to allow egress and/or ingress (Yes/No)?	Does the door close, latch, and lock properly (Yes/No)?	Does the door alarm announce locally (Yes/No)?	Does the door alarm announce in CPOC (Yes/No)?	Additional Notes:
A-500 Fitness Center (Rear Emergency Exit Door)						

No "No" responses require an immediate corrective action. Send a copy of this report to the Physical Security Division and to the Safety & Health Division for follow up.

Notes:

Sign:

Door Inspection Guidance:

- ✓ Check for open holes or breaks in door or frame
- ✓ Check door for missing or broken parts
- ✓ Check that glazing, vision light frames, and glazing beads are intact and securely fastened
- ✓ Check that door, frame, hinges, hardware, and thresholds are secured, aligned without damage and working properly
- ✓ Check for proper clearance between the door and frame, between meeting stiles of pairs, and at bottom of door
- ✓ Check that the self-closing devices are operational
- ✓ Check the latching hardware operates and secures door in closed position
- ✓ Check that gasket and edge seals are present and in good condition
- ✓ Check for any items that may interfere with the door operation
- ✓ Check for field modifications that would void the label and that labels are present and visible
- ✓ Check for appropriate signage on door

Annex Building Door Checklist

Officer Name: _____

Date: _____

Shift: _____

Floor Level – Basement

Door Location Wing/Section or Stairwell	Door #	Does the door function properly to allow egress and/or ingress (Yes/No)?	Does the door close, latch, and lock properly (Yes/No)?	Does the door alarm announce locally (Yes/No)?	Does the door alarm announce in CPOC (Yes/No)?	Additional Notes:
Roll Door Rear to Railroad (Perimeter Door)	25-15					
Exit to Railroad (Perimeter Door)	25-11					
Exit South-Area 6 (Perimeter Door)	25-9					
Exit SE-Inside 25-16 (Perimeter Door)	25-14					
Railroad Door (Perimeter Door)						
CPOC Exit Utility Room (Perimeter Door)	10-10					
SW Mezz. To Moat to D Street (Perimeter Door)	25-15					

Floor Level – First

Door Location Wing/Section or Stairwell	Door #	Does the door function properly to allow egress and/or ingress (Yes/No)?	Does the door close, latch, and lock properly (Yes/No)?	Does the door alarm announce locally (Yes/No)?	Does the door alarm announce in CPOC (Yes/No)?	Additional Notes:
Loading Dock Roll Door East (Perimeter Door)	Post 1A-8					
Loading Dock Roll Door West (Perimeter Door)	Post 1A-9					
Exit to 13 th Street (Perimeter Door)	141-1					
Auditorium-Classroom Hallway –West Exit to C Street (Perimeter Door)						
Auditorium- Center for Excellence-East Exit to C Street (Perimeter Door)						
14 th Street-Lobby Doors North (Perimeter Doors)	Post 1A-14					
14 th Street-Lobby Doors South (Perimeter Doors)	Post 1A-14					

Floor Level – Second

Door Location Wing/Section or Stairwell	Door #	Does the door function properly to allow egress and/or ingress (Yes/No)?	Does the door close, latch, and lock properly (Yes/No)?	Does the door alarm announce locally (Yes/No)?	Does the door alarm announce in CPOC (Yes/No)?	Additional Notes:
13 th Street-Lobby Doors South (Perimeter Doors)	Post 2A-13					
13 th Street-Lobby Doors North (Perimeter Doors)	Post 2A-13					
Cafeteria-Emergency Exit to C Street (Perimeter Doors)						
Public Debt-Emergency Exit to C Street (Perimeter Doors)						

No responses require an immediate corrective action. Send a copy of this report to the Physical Security Division and to the Safety & Health Division for follow up.

Notes:

Sign:

Door Inspection Guidance:

- ✓ Check for open holes or breaks in door or frame
- ✓ Check door for missing or broken parts
- ✓ Check that glazing, vision light frames, and glazing beads are intact and securely fastened
- ✓ Check that door, frame, hinges, hardware, and thresholds are secured, aligned without damage and working properly
- ✓ Check for proper clearance between the door and frame, between meeting stiles of pairs, and at bottom of door
- ✓ Check that the self-closing devices are operational
- ✓ Check the latching hardware operates and secures door in closed position
- ✓ Check that gasket and edge seals are present and in good condition
- ✓ Check for any items that may interfere with the door operation
- ✓ Check for field modifications that would void the label and that labels are present and visible
- ✓ Check for appropriate signage on door

Main Building Phone Checklist

Officer Name: _____ Date: _____ Shift: _____


[illegible]

Annex Building Phone Checklist

Officer Name: _____ Date: _____ Shift: _____

Phone Location Stairwell & Floor	Is the phone accessible & operational? (Yes/No)	Additional Comments	Did CPOC answer the call? (Yes/No)	Additional Comments
Stairwell A - Basement				
Stairwell A - 1 st Floor				
Stairwell A - 2 nd Floor				
Stairwell A - 3 rd Floor				
Stairwell A - 4 th Floor				
Stairwell A - 5 th Floor				
Stairwell A - 6 th Floor				
Stairwell A - 7 th Floor				
Stairwell A - 8 th Floor				
Stairwell A - 9 th Floor				
Stairwell B - Basement				
Stairwell B - 1 st Floor				
Stairwell B - 2 nd Floor				
Stairwell B - 3 rd Floor				
Stairwell B - 4 th Floor				
Stairwell B - 5 th Floor				
Stairwell B - 6 th Floor				
Stairwell B - 7 th Floor				
Stairwell B - 8 th Floor				
Stairwell B - 9 th Floor				
Stairwell C - Basement				
Stairwell C - 1 st Floor				
Stairwell C - 2 nd Floor				
Stairwell C - 3 rd Floor				
Stairwell C - 4 th Floor				
Stairwell C - 5 th Floor				
Stairwell C - 6 th Floor				
Stairwell C - 7 th Floor				
Stairwell C - 8 th Floor				
Stairwell C - 9 th Floor				
Stairwell D - 2nd Floor				
Stairwell D - 3 rd Floor				
Stairwell D - 4 th Floor				
Stairwell D - 5 th Floor				
Stairwell D - 6 th Floor				
Stairwell D - 7 th Floor				
Stairwell E - Basement				
Stairwell E - 1 st Floor				
Stairwell E - 2 nd Floor				
Stairwell E - 3 rd Floor				
Stairwell E - 4 th Floor				
Stairwell E - 5 th Floor				
Stairwell E - 6 th Floor				
Stairwell E - 7 th Floor				
Stairwell E - 8 th Floor				
Stairwell E - 9 th Floor				
Stairwell F - Basement				
Stairwell F - 1 st Floor				
Stairwell F - 2 nd Floor				
Stairwell F - 3 rd Floor				
Stairwell F - 4 th Floor				
Stairwell F - 5 th Floor				

Phone Location Stairwell & Floor	Is the phone accessible & operational? (Yes/No)	Additional Comments	Did CPOC answer the call? (Yes/No)	Additional Comments
Stairwell F – 6 th Floor				
Stairwell F – 7 th Floor				
Notes:				

	Hazardous Materials Handling and Storage		Revision: #4
	Document Control Number: 75D-04.0-03		Date: 7/27/16
PROC.	Responsible Organization: Office of Environment, Health and Safety		
	Approved By: Neal Mohlmann	Signature: <electronic>	

1.0 Purpose:

This procedure describes the handling and storage requirements for hazardous materials in the Bureau of Engraving and Printing's (BEP) Washington, D.C, Facility (DCF) and the Landover Warehouse. Its purpose is to ensure that all hazardous materials are stored according to compatibility, storage capacity limits, and safe distance requirements.

2.0 Scope:

This procedure applies to all BEP employees and contractors involved in the handling and storage of hazardous materials at the DCF, Landover Warehouse, and general work areas.

3.0 Definitions:

Aerosol

A material which is dispensed from its container as a mist, spray, or foam by a propellant under pressure.

Corrosive

A highly reactive material that causes obvious damage to living tissue such as skin, eyes, and the respiratory system. Contact with organic matter or certain chemicals may cause fire. The major classes of corrosive chemicals are strong acids and bases, dehydrating agents, and oxidizing agents.

Cross-tied

A method of stacking material on a pallet such that seams on alternate layers overlap those on adjacent layers thereby stabilizing the load.

Fire Area

An area of a building separated from the remainder of the building by construction having a fire resistance of at least 1 hour and having all communicating openings properly protected by an assembly having a fire resistance rating of at least 1 hour.

Flammable Liquid

Any liquid having a flash point at or below 199.4° F. Flammable liquids are divided into four categories as follows: A Category 1 flammable liquid has a flashpoint below 73.4° F and has a boiling point at or below 95° F. A Category 2 flammable liquid has a flashpoint below 73.4° F and has a boiling point above 95° F. A Category 3 flammable

liquid has a flashpoint at or above 73.4° and at or below 140° F. A Category 4 flammable liquid has a flashpoint above 140° F and at or below 199.4° F.

Flammable Gas

Any gas that is ignitable and flammable when at concentrations of at least 12% of air by volume.

Flashpoint

The minimum temperature of a material at which it can be ignited.

Hazardous Material

Any material having one or more of the following properties: flammable, explosive, corrosive, reactive, toxic, or is an oxidizer.

Oxidizer

Any chemical that supports combustion in other materials such as oxygen.

Safety Cans

An OSHA, NFPA or DOT approved container with a maximum capacity of five (5) gallons.

4.0 Roles and Responsibilities:

4.1 The Office of Environment, Health, and Safety (OEHS) is responsible for:

- a. Assigning/providing training to employees who handle hazardous materials to enable them to recognize and control potential hazards;
- b. Responding appropriately to spills;
- c. Selecting appropriate personal protective equipment (PPE) where necessary;
- d. Facilitating removal of expired chemicals from the inventory;
- e. Conducting routine inspections to ensure appropriate handling and storing of all hazardous materials; and
- f. Review and update this procedure as often as necessary.

4.2 Acquisition Inventory Management Specialists, Contracting Officers Representatives (CORs), BEP Cardholders, and program/project requestors are responsible for setting ordering points in a manner which minimizes the amount of hazardous materials at DCF and the Landover Warehouse.

4.3 The Warehouse & Materials Distribution Division shall:

- a. Identify, inventory and store hazardous chemicals in accordance with this procedure;

- b. Submit requisitions to the Office of Acquisition to obtain needed production materials and related general supplies to requesting sections; and
- c. Ensure stock is adequately rotated and that expired chemicals are removed from the inventory.

4.4 Supervisors are responsible for communicating this procedure to the appropriate employees, enforcing this procedure, and regularly checking their areas to ensure that employees are handling and storing all hazardous materials according to this procedure. In addition, the supervisor upon receiving hazardous materials is responsible for:

- a. Ensuring that employees wear appropriate PPE while handling hazardous materials.
- b. Identifying and keeping track of hazardous materials manufacturer recommended shelf-life or inspection/expiration dates.
- c. Labeling expired hazardous materials as "Obsolete Do Not Use" and physically segregating expired materials from still useable materials.
- d. Contacting the OEHS's EMD manager in writing to arrange for proper disposal of expired hazardous materials.

4.5 Employees are responsible for handling and storing hazardous materials according to this procedure including:

- a. Using appropriate PPE while handling hazardous materials; and
- b. Following good housekeeping practices.

5.0 Procedure:

5.1 General Requirements for all hazardous chemicals, employees shall:

- a. Review manufacturer product labels and safety data sheets (SDS) to identify the hazard class or classes of the product;
- b. Inspect material to ensure that it is free of leaks and/or damage. If the packaging is damaged, immediately report the problem to the supervisor prior to storing the products;
- c. Store them according to their chemical hazard classification described within this procedure and Appendix B; and
- d. Ensure drum and bulk material are not stored on top of each other.

5.2 Prior to transporting materials, industrial truck operators must:

- a. Ensure that the load on pallets is stable, cross-tied and evenly distributed;

- b. Ensure that drums transported on pallets are strapped together to stabilize them;
- c. Conduct a visual inspection prior to transporting any containers for spills or leaks. If spills or leaks are observed in the storage room, follow the Spill Response and Reporting Procedure 75D-02.0-02;
- d. Use only Type EE powered industrial trucks in the flammable storage room.

5.3 Liquid and Solid Flammable Storage

- a. Small quantities of flammable materials must be stored in OSHA, or USDOT approved safety cans or cabinets.
- b. Appendix B shows the maximum quantities of flammable liquids that may be stored in each of DCF's fire areas. BEP personnel should minimize storage of flammables in all areas to stay within the limits for each fire area. The flammable storage rooms (Room 25-12A and B-404M) allow storage of larger quantities of flammables.
- c. All other quantities of flammable liquids and solid materials must be stored in the flammable storage rooms (Room 25-12A or B-404M) or in a listed and approved flammable cabinet. See Appendix B for maximum allowable quantities permitted.
- d. Segregate flammable liquids from oxidizing acids or oxidizers by a minimum of 20 feet.
- e. Flammable liquids and solids must be stored away from sources of ignition, such as excessive heat and electrical components.
- f. Before storing flammable materials, ensure that the general ventilation system is operating.
- g. Do not store anything other than flammable materials in the flammable storage room or storage cabinet.
- h. Do not alter, drill or puncture cabinets in any way.
- i. Dispensing flammable liquids – Flammable liquids shall not be dispensed into containers unless the nozzle and container are electrically interconnected. A grounding wire shall connect the dispensing container to the common ground within the facility. A bonding wire shall connect the receiving container and the dispensing container.

5.4 Flammable Storage Room 25-12A and Ink & Solvent Storage Room B-404M (See Appendix B for Maximum Allowable Quantities)

- a. Containers over 30 gallon capacity shall not be directly stacked upon one another.

- b. Do not store any materials other than flammable materials in this room.
- c. Do not store propane bottles of any size inside the room.
- d. Do not store flammable liquids by the emergency exit.
- e. Do not block exhaust vents inside the room.
- f. Do not block air transfer grills in wall.
- g. Keep all potential ignition sources (i.e. sparks, arcs, welding, heat production equipment and open flames) at least 20 feet away from flammable storage room.
- h. Maintain one clear aisle at least three feet wide.

5.5 Non-Flammable Liquid and Solid Storage

- a. Room 25-16A is the primary storage area for non-flammable liquids and solids.
- b. Segregate acids from bases by storing them 20 feet apart or in separate approved cabinets.
- c. Large bottles of bases should be stored on lower shelves in an approved corrosive storage cabinet.
- d. Oxidizers must be stored in a cool and dry area away from flammable, combustible and corrosive materials by a minimum distance of 25 feet.
- e. Keep corrosives away from substances that they may react with and release corrosive, toxic, or flammable vapors.

5.6 Compressed Gas Cylinder Storage Room 176-1A

- a. All gas cylinders must be labeled with the contents and the hazard class. Report unlabeled gas cylinders to CPOC at 4-1234.
- b. Store away from sources of heat in a protected, well ventilated, dry location, at least 20 feet from combustible materials (except on welding carts).
- c. Compressed gas cylinders must be stored with valve protection caps in place and must be secured by a chain or other device to prevent falling or rolling.
- d. Color coding system may not be used to identify containers content; only a written label is acceptable.
- e. Gas cylinders may not be rolled in the horizontal position or dragged. Use a suitable hand truck or industrial forklift truck with the cylinder properly secured.

- f. Do not allow cylinders to strike hard surfaces.
- g. Never weld attachments to cylinders.
- h. Flammable gases, such as acetylene, must be separated from oxidizer gases (oxygen or nitrous oxide) by a minimum distance of 20 feet except on welding carts.

6.0 Related Documents:

Spill Response and Reporting 75D-02.0-02

Emergency Action and Fire Prevention Plan 75D-04.0-01

SPCC (Spill Prevention, Countermeasure and Control Plan) 75D-02.0-01

Hazard Communication 75D-05.0-03

7.0 Document Revision History

Rev. #	Purpose of Revision	Eff. Date
1	Removal of an unnecessary requirement, add definition, responsibilities and requirements. Add Appendix B.	6/24/10
2	Change definitions to match OSHA's changes; update MAQ storage requirements and update the CPOC non-emergency contact number.	10/2/13
3	Changed doc number	4/18/14
4	Clarify flammable drum storage requirement and update Appendix B.	7/27/16

Appendix A Hazardous Materials Storage


Hazardous Materials	Incompatible with...	Allowable Minimum Distance	Special Consideration(s) or Recommendations
Corrosives - Acid	Base	separate cabinets or separate by 20 ft.	Use chemical compatible glove and ANSI approved safety glasses. Do not eat or drink.
Corrosives - Base	Acid	separate cabinets or separate by 20 ft.	Utilize chemical compatible glove and ANSI approved safety glasses.
Flammable Category 1, 2, & 3	Oxidizers, Ignition sources	25 ft.	Use general ventilation system or natural ventilation system (doors or windows) in flammable storage room to reduce the vapor levels.
Flammable Category 4	Ignition sources	20 ft.	Keep away all ignition sources. All hot work requires a burn permit from OEHS.
Oxidizers	Flammable	20 ft.	Segregate flammable materials from oxidizers by a minimum distance of 20 feet. Do not store organic peroxide with oxidizers.
Compressed Gas Cylinder	Depending on the material	>20 ft.	Segregate acetylene and other flammable gases and oxidizer by a minimum distance of 20 feet (except on welding carts). Secure all compressed gas cylinders with chains or straps. Store acetylene and oxidizers in opposite ends of the compressed gas cylinder storage room. DO NOT store more than 50 bottles of oxidizers in one area.

Table 1.0: This table displays hazardous materials proper storage and handling techniques.

Appendix A may be posted for quick reference at locations in which hazardous materials are stored.

Appendix B Flammable Materials Storage

Area	Maximum Allowable Quantity (Gallons)				
	Category 1 (e.g. most aerosol cans like Economist, Lube All, WD 40, Super Inkosaver aero can)	Category 2 (e.g. ethyl alcohol, Isomet, Stop-off Lacquer/Reducer, IsoSolv)	Category 3 (e.g. dye bath photographic blue, developer KPR 3/4 Varsol, Super Inkosaver, Bottcherin Offset 40 & 4050)	Category 4 (e.g. LoVo Wash 50, Ink varnish, Agitene cleaner, vacuum pump oil)	
Flammable Storage Room¹ (Room 25-12A)	5000 Gallons Total				Store in Room 25-16A
Ink & Solvent Storage Room (B-404M)	600 Gallons Total				Store in Room 25-16A
Landover Warehouse ²	Not permitted	660 (maximum 5 foot high)	1,375 (maximum 5 foot high)	2,750 (maximum 10' high)	13,750 (maximum 15 ' high)
Other DCF fire areas ^{3 & 4}	25 Gallons of Category 1 in approved containers outside of flammable cabinets and →	120 Gallons of Category 2, 3, & 4 in approved containers outside of flammable cabinets ↓			
	Not more than 60 Gallons of Category 1, 2, & 3 combined inside any one flammable cabinet, or →			120 Gallons total of Category 4 inside any one flammable cabinet	
	↓ Each fire area with sprinklers may have up to 6 approved safety cabinets totaling 360 gallons of Category 1, 2, and 3 liquids or 720 gallons of Category 4 flammable liquids . No more than 3 of these safety cabinets may be grouped together and each group must be separated from the other group by 100 feet.				

	Hot Work Permits	Revision: #2
	75D-04.0-02	Effective: 3/21/2017

1.0 Purpose:

This document outlines the roles and responsibilities of BEP personnel when performing hot work and to mitigate the risk of injury and/or property damage due to fire. Hot work includes any operation producing flame, sparks or heat. Examples of hot work include torch cutting, welding, brazing, soldering, grinding, etc. The requirements in this policy shall also apply to other work requests (e.g. duct cleaning, airless sprayer painting, and outages, etc.) that may require the disabling of the various fire suppression or fire alarm monitoring devices.

2.0 Scope: DCF

3.0 Roles and Responsibilities:

3.1 The Office of Environment, Health and Safety (OEHS) shall:

- a. Update this procedure as necessary in accordance with OSHA, NFPA and ANSI regulations.
- b. Process BEP form 9901 (aka, hot work, FS/FA outage or burn permit) requests by serving as the Authority Having Jurisdiction (AHJ) and Permit Authorizing Individual (PAI). See PAI responsibilities in section 3.2 below.
- c. Determine permissible areas for hot work.
- d. Advise all contractors about site-specific flammable materials, hazardous processes or conditions, or other potential fire hazards.
- e. Conduct pre-work inspections to ensure compliance with fire prevention regulations and practices. Examine all equipment to ensure it is in safe operating condition prior to work. Inspect work sites for potential ignition and fuel sources and the possible spread of fire or smoke.
- f. Designate employees to receive fire safety, fire extinguisher, emergency action and fire prevention training, etc.
- g. Audit the program annually and where necessary, implemented corrective actions.

3.2 Permit Authorizing Individual (PAI) shall:

- a. Know/understand this hot work procedure and discuss the details of the job with the requestor.

- b. Know/understand the basic principles of incipient stage hot work fires and when necessary, provide precautionary advice. Always consider the safety of the hot work operator and fire watch with respect to their personal protection and life safety.
- c. Evaluate the work site hazards and discuss findings with the requestor. Give specific instructions to the requestor, when necessary, to perform the hot work in the safest possible manner. If hot work is being requested in a confined space, inform the requestor of BEP confined space permit requirements. Requestor is responsible for ensuring that all personnel involved in the hot work operation are compliant with the requirements set forth in 29 CFR 1910.146.
- d. Determine the need for a permit. Hot work shall not be performed if the work can be avoided or performed in a safer manner.
- e. Determine appropriate fire protection and extinguishing equipment for the job-site.
- f. Determine the need for a fire watch.
- g. Process and issue the permit.
 - 1. Obtain any additional data from the requestor.
 - 2. Assign the permit a number.
 - 3. Enter the data into the official hot work log file.
 - 4. Fill in the appropriate zone points to be disabled.
 - 5. Conduct a pre-work inspection of the work site.
 - 6. Discuss any findings with the requestor.
 - 7. Write any specific instructions/precautions on the permit.
 - 8. Review the permit for completeness and accuracy then sign and date to issue the permit.
 - 9. Remove the pink copy from the carbon attachments and file.
 - 10. Post the signed permit back on the permit board and call the requestor to inform them the permit has been approved.
- h. Regularly spot check the work site. If conditions change or if permit non-compliance is observed, halt the operation, cancel the permit, and report the changing condition or infraction to the supervisor.
- i. If no fire watch is needed, perform the final check of the hot work area half an hour after the job is completed.
- j. When the requestor or fire watch returns the posted white copy, attach the white copy to the pink copy in the file.

3.3 BEP Supervisors, CORs or Contract Coordinators shall:

- a. Initiate the burn permit request by completely filling out all pertinent sections of BEP form 9901, which includes the following steps:

1. Determine and indicate on the permit whether this is a request for cutting, welding, burning, etc. or if it's a request for a sprinkler outage.
 2. Fill in whether BEP employees or contractors are going to complete this work.
 3. Enter the supervisor/requestor's name and extension in the space directly below the permit title box.
 4. Provide specific location information (i.e. building, floor, wing, room number, confined space, etc.)
 5. Provide names of employees or contractors performing the work.
 6. Provide a thorough description of the work involved.
 7. Provide precise start and end dates and times.
 8. Provide the names of assigned employees performing fire watch duties.
 9. Print all information legibly.
-
- b. Plan all jobs so as not to request zone points to be offline more than 10 working days at a time.
 - c. Attach the requested permits to the permit request board located on the wall outside room 646-A.
 - d. Be willing and available to discuss the details of the job with the PAI and conduct a walkthrough of the work site, if deemed necessary.
 - e. Retrieve completed permits once they've been approved and processed. Retain blue carbon copy of permit for personal records.
 - f. Assign appropriately trained personnel to perform the hot work.
 - g. Assign appropriately trained personnel to carry out the responsibilities of a fire watch wherever hot work is being performed.
 - h. Follow up on work tasks by ensuring the permit's post work inspection is completed and obtaining completed permit from the fire watch.
 - i. Review the permit, operation, and work practices for completeness, accuracy, and safety.
 - j. Never allow an employee to perform hot work on an expired permit.
 - k. Submit requests for extensions 24 hours in advance.
 - l. Return completed permits to OEHS.
 - m. If approved by AHJ, act as the PAI in emergency situations only when OEHS staff is unavailable. This requirement shall involve knowledge of the PAI function and direct coordination of the hot work activities with PCC personnel. The acting PAI supervisor must return the completed emergency permit back to OEHS with a written explanation of the emergency within 3 calendar days of the hot work completion.

- n. Ensure all personnel are trained, in fire safety, and emergency action/fire prevention training.

3.4 Police Communications Center (PCC) shall:

- a. Receive the yellow copy of the burn permit from the requestor.
- b. Disable the zone points provided on the permit for the specified times each day the permit is open.
- c. Put points back on line after time indicated on permit elapses.
- d. File the yellow copy of the burn permit into the most recent burn permit binder.
- e. Monitor EST fire panel and Fireworks station for devices not on the permit that may go into alarm during the hot work operation. Once alarms are verified, add those device points to the permit and inform the PAI.
- f. Follow up on any alarm that comes into the PCC by dispatching an officer to verify the alarm.
- g. Process emergency burn permits by following the fire management system's (FMS) monitoring SOP protocol.
- h. Halt hot work operation if reports of smoke or fire are received in PCC.

3.5 Contractors and sub-contractors shall:

- a. Fully comply with all federal environment, safety and health regulations, standards, and codes, as well as, all BEP policies, procedures, and requirements.
- b. Discuss the planned project completely with requestor, including the type of hot work to be conducted and any potential hazards involved.
- c. Provide documentation of training upon request.
- d. Coordinate all burn permit requests through the COR or contract coordinator at least 24 hours in advance.
- e. Submit immediately upon request any data pertaining to the requested hot work.
- f. Follow any instructions provided by the COR or contract coordinator, the PAI, BEP safety and health official or police officer.
- g. Always demonstrate industry proven safe work practices.
- h. Supply all equipment necessary to perform the hot work safely.

- i. Cease hot work operations immediately if directed by the COR, contract coordinator, the PAI, BEP safety and health official, or police officer.

3.6 Hot Work Operators shall:

- a. Be trained in the safe operation of equipment and in the safe use of the process.
- b. Have an awareness of the inherent risks involved and understand the emergency procedures in the event of a fire.
- c. Perform hot work only for which he or she has an approved permit and is trained to perform.
- d. Review approved permit with supervisor, contract coordinator, or OEHS PAI before commencing hot work operations.
- e. Adhere to PAI instructions and verify permit controls are in place prior to commencing hot work operations.
- f. Post the white copy of the permit at the work site in plain view.
- g. Wear the proper personal protective equipment prior to commencing hot work. Clothing shall be selected to minimize the potential for ignition, burning, trapping hot sparks, and electric shock.
- h. Inspect hot work equipment and ensure it is in safe working condition as designed by the manufacturer. If found to be incapable of reliable safe operation, the equipment shall be repaired by qualified personnel prior to its next use or be withdrawn from service.
- i. Ensure pipe lines or connections to containers are disconnected or blanked.
- j. Purge and clean thoroughly any tank or container prior to attempting hot work.
- k. Provide adequate ventilation for the hot work operation.
- l. Cease hot work operations immediately if conditions change or if instructed by the PAI, police officer, or supervisor.
- m. Know/understand the basic principles of incipient stage hot work fires, fire prevention practices, use of a fire extinguisher and know how to respond in the event of a fire.

3.7 Fire Watch shall:

- a. Understand the hazard of the hot work being performed and the limitations placed on that hot work operation as given by the PAI. This includes an understanding of the basic hazards of any combustible construction involved with the hot work area, the fire exposure hazard that hot work creates to occupancies adjacent to or below the hot work operation, the hazards associated with the occupancy, and the need to

maintain proper isolation of all hot work operations from combustible or flammable materials.

- b. Adhere to permit, supervisor, and PAI instructions.
- c. Never conduct a fire watch from inside a confined space.
- d. Remove or relocate all flammable and combustible materials at least 35 feet away from work site. If not feasible, protect by properly covering/shielding with appropriate fire resistive/retardant material, guards or curtains. Edges of covers at the floor shall be tight to prevent sparks from going under them.
- e. Relocate compressed gas cylinders at least 35 feet away from work site.
- f. Protect openings or cracks in walls, floors, or ducts within 35 feet of the work site to prevent the passage of sparks or smoke to adjacent areas and adjacent floors.
- g. Sweep floors or have floors swept clean of dust and combustibles. Wet down or properly cover combustible floors with fire retardant shields or materials.
- h. Ensure tanks, ducts, or containers with combustibles and vapors have been cleaned, purged, or cleared.
- i. Know/understand the basic principles of incipient stage hot work fires, fire prevention practices, use of a fire extinguisher and know how to respond in the event of a fire.
- j. Monitor both the operator and the area for the spread of fire during hot work. Maintain a fire-safe condition throughout performance of the hot work.
- k. Wear the appropriate personal protective equipment.
- l. Always have an appropriate fire extinguisher(s) for the operation and be trained in the use of manual, portable fire extinguishers and emergency notification procedures.
- m. Ensure the operator safely handles the hot work equipment.
- n. Keep unauthorized persons out of hot work area.
- o. Halt operation if conditions change or if instructed by the PAI, police officer, safety and health official, or supervisor.
- p. Know how to sound the building alarm by pulling a manual pull station or by calling the Police Communications at 4-0911 for help.
- q. Stay 30 minutes after work has been completed to monitor the area.
- r. Take down permit upon completion of fire watch then return completed permit back to the Office of Environment, Health and Safety within 5 calendar days

3.8 Emergency Burn Permits:

In the event of an emergency, if the PAI is unavailable, supervisors authorized by the AHJ to act as PAI, may issue an emergency permit directly through the Police communications. OEHS reserves the right to terminate this procedure if abuse is evident.

3.9 Mutual Responsibility:

Management, contractors, the PAI, the fire watch, and the operators shall recognize their mutual responsibility for safety in hot work operations.

4.0 Related Documents:


BEP Burn Permit Form 9901

EHS Contractor Requirements 75D-07.0-04 Confined Space Entry 75D-04.0-13

Emergency Action and Fire Prevention Plan 75D-04.0-01

Document Revision History:

Rev. #	Purpose of Revision	Eff. Date	Approver
1	Changed Document numbers to meet new scheme	4/15/2012	N. Mohlmann
2	Three year policy review and update. Update Emergency information.	6/1/2017	N. Mohlmann

	Hoists and Cranes		Revision: #5
	Document Control Number: 75D-04.0-05		Date: 03/16/17
PROC.	Responsible Organizations: Office of Environment, Health and Safety		
	Approved By: Neal Mohlmann	Signature:	

1.0 Purpose:

This procedure outlines the requirements for the operation, maintenance, inspection, and recordkeeping of hoists and cranes at DCF.

2.0 Scope:

This procedure applies to all DCF hoists and cranes.

3.0 Roles and Responsibilities:

3.1 The Office of Facilities Support (OFS) shall:

- a. Ensure that all required initial, frequent and periodic hoist and crane inspections, scheduled maintenance, repairs, and certifications are performed in compliance with the referenced ASME Standards;
- b. Maintain a current inventory of all powered and manual hoists and cranes; and
- c. Maintain inspection and load testing records.

3.2 Section Supervisors shall:

- a. Ensure that each operator receives specific operator training on the hoists and cranes in their respective work areas;

Users of paper copies are responsible for verifying the current revision is being referenced

- b. Ensure that each hoist or crane has a checklist posted near the hoist or crane that details the inspection procedure each operator must conduct prior to using the hoist or crane; and
- c. Prior to purchasing a new hoist or crane, request an EHS review from the OEHS and a structural analysis review by OFS. Once both offices review and approve the equipment and the proposed location, the equipment may then be installed (see *EHS Review 75D-07.0-01* and *EHS Large Equipment Purchase Requirements 75D-07.0-06*).

3.3 OEHS Shall:

- a. Serve as the Hoist and Cranes Program manager and interpret laws, regulations and standards.
- b. Conduct an annual facility survey to verify the inventory of hoists and cranes;
- c. Monitor required inspections and maintenance services; and
- d. Develop a training module for online training for hoist and crane operators.

3.4 Hoist and Crane Operators Shall:

- a. Perform a daily inspection of each hoist or crane using the *posted Hoist and Crane Inspection Checklist 75D-04.0-05 FORM*. This checklist is the same as the wall placard posted at each hoist and crane;
- b. Safely use hoists or cranes and report any deficiencies to the supervisor; and
- c. Complete hoist and crane training as required.

4.0 Definitions:

- 4.1 Crane - A machine for lifting and lowering a load and moving it horizontally. Cranes, whether fixed or mobile are driven manually, by power, or by a combination of both.
- 4.2 Daily Inspection – An inspection that must be performed at the beginning of the shift by the operator.
- 4.3 Frequent Inspection - monthly visual examinations by OFS (or contractor) with records required (per *ASME B30.16-2007*).

- 4.4 Hoist: A suspended machinery unit that is used for lifting or lowering a freely suspended load. Hoists can be hand-chain operated or electric powered.
- 4.5 Initial Inspection – an inspection conducted prior to initial use or after a major modification or repair.
- 4.6 Periodic Inspection - Visual inspection by a designated person (OFS or contractor) who makes records of external conditions to provide the basis for a continuing evaluation as described in *Chapter 16-2 in ASME B-30.16-2007*.
- 4.7 Rated Load – the maximum load for which a hoist is designated by the manufacturer or a qualified person. The rated load must be marked on the hoist or its load block, the crane and the monorail and shall be legible from the floor. When a hoist is suspended from a trolley, monorail or crane (or combination of any), and the rated load of each is different, the rated load for the system shall be based on the lowest minimum rated load of any individual piece of equipment or structure within the system.

5.0 References:

- Monorails and Underhung Cranes. The American Society of Mechanical Engineers (ASME) B30.11-2010
- Overhead Hoists (Underhung). ASME B30.16-2007
- Hooks. ASME B30.10-2009
- Operational Control 75D-00.0-08
- EHS Review 75D-07.0-01
- Daily Inspection Checklist (wall placard)
- Large Equipment Boilerplate 75D-07.0-06

6.0 Enclosures: n/a

7.0 Procedure: Suspect Equipment:

Users of paper copies are responsible for verifying the current revision is being referenced

- 7.1 Any hoist, crane or lifting device that is identified as malfunctioning, damaged or otherwise suspect shall be reported to OEHS and OFS by the supervisor.
- 7.2 Suspect equipment will be inspected by OEHS and OFS and a joint determination will be made to do one of the following until a replacement can be made or maintenance can be performed.
- a. Tag the equipment out of service, segregate and prevent its continued use.
 - b. Depending on the severity of the damage or malfunction, use of the equipment will be restricted and the equipment will be identified as suspect.
- 7.3 Supervisors are responsible for communicating to employees any equipment restrictions and ensuring equipment that is out of service is not used.


7.4 Activity Table

Action	Responsible Party	Frequency	Details	Recordkeeping
Daily inspection	Hoist/Crane operator	Start of shift	In accordance with daily inspection list (wall placard)	None
Frequent (Monthly) Inspection	OFS	Once a month	In accordance with referenced ASME standards	Dated records maintained by OFS
Periodic Inspection	OFS	Once a year	In accordance with referenced ASME standards	Dated records maintained by OFS
Maintenance	OFS	As recommended and needed	In accordance with manufacturer's manual and qualified person	Dated records maintained by OFS

Users of paper copies are responsible for verifying the current revision is being referenced

Operational Test	OFS	<ul style="list-style-type: none"> • New hoists/cranes tested by manufacturer • Repaired/alterd hoists tested prior to service • Hoists/cranes not used within last 12 months tested prior to service 	In accordance with referenced ASME standards	Dated report for all load tests maintained by OFS
Load Test	OFS	<ul style="list-style-type: none"> • New hoist load tested by manufacturer • Repaired/alterd hoist assessed by qualified person and load tested if warranted 	In accordance with referenced ASME standards	Dated report for all load tests maintained by OFS

Revision	Purpose of Revision	Effective Date
1	Clarification of responsibilities, added Table	5/21/11
2	Procedure for removing suspect equipment from service	7/24/12
3	Changed Document numbers	4/28/14
4	Changed font and removed Hoist & Crane Inspection Checklist from Related Documents; re-ordered to meet new documentation requirements	7/15/14
5	Periodic review. No changes.	3/16/17

	Personal Protective Equipment		Revision: #1
	Document Control Number: 75D-04.0-06		Date: 04/22/14
PROC.	Responsible Organization: Office of Environment, Health and Safety		
	Approved By: Neal Mohlmann	Signature:	

1.0 Purpose:

To establish and implement a comprehensive program to protect employees from hazardous conditions and/or hazardous chemicals which meets or exceeds acceptable standards established in OSHA 29 CFR Subpart I, Personal Protective Equipment (PPE). PPE is used only after other controls are implemented or found not feasible.

2.0 Scope:

This procedure applies to the following PPE at the DC facility (DCF): safety shoes; protective eyewear (safety glasses, goggles and face shields); hearing protectors; aprons; bump caps; disposable coveralls, shoe covers, gloves; hard hats; and respirators.

3.0 Roles and Responsibilities:

3.1 The OEHS PPE Program Manager is responsible for:

- a. Overall administrative and technical responsibility for the PPE Program.
- b. Interpretation of OSHA PPE requirements and their application to DCF.
- c. Communication of PPE requirements to relevant DCF supervisors and managers
- d. Evaluating PPE related corrective actions taken by supervisors for their
- e. Effectiveness and conformance with BEP EHS policy.
- f. Developing change out schedules and usage forms for those employees in the Respiratory Protection Program.

3.2 The Office of Acquisition shall:

- a. Consult with the PPE Program Manager for the review and approval of all PPE proposed for purchase and use within the BEP;

- b. Ensure that PPE designated by the Program Manager is procured in accordance with the indicated descriptions and specifications and is added to the BEP Storeroom stock listing; and
 - c. Ensure that all designated PPE is maintained in the BEP Storeroom at the appropriate quantities.
- 3.3** Management and supervisory personnel are ultimately responsible for an effective safety and health program in their work area. This requires continuous monitoring of the work area and reporting hazardous conditions to OEHS. To the extent of their authority, managers and supervisors shall:
- a. Maintain an adequate stock of designated PPE in each work area;
 - b. Ensure that areas and/or operations designated by the OEHS as requiring the use of PPE have signs posted which reflect these requirements. The signs will specify which form of PPE is required;
 - c. Ensure that all employees working in areas requiring the use of PPE know how to acquire and use PPE properly. Supervisors shall restrict employees without PPE from working until such time that PPE is acquired.
 - d. Ensure that employees who fail to comply with the PPE Program receives disciplinary action commensurate with the individual's violation;
 - e. Take corrective action against subordinates who permit, condone, or fail to correct PPE violations that occur within their areas of responsibility; and
 - f. Ensure that new employees are issued PPE before commencement of work.
- 3.4** Employees and contractors working in designated areas that require the use of PPE shall:
- a. Wear appropriate PPE as required by the PPE Program when performing duties in designated areas;
 - b. Safeguard non-disposable PPE by keeping it secured in assigned lockers or designated office areas when not being worn;
 - c. Maintain and keep PPE in clean, working order; and
 - d. Contact the appropriate supervisory personnel when the need for replacement PPE is necessary.

4.0 PPE Acquisition:

- 4.1** Stock PPE (does not include safety shoes, respiratory protection, and prescription safety glasses): Employees must complete a requisitions form and pick up PPE from the Store Room, Room 27A.
- 4.2** Non-Prescription Safety Shoes: BEP will pay up to \$90 per pair of safety shoes

(except orthopedic shoes). Any employee desiring higher priced protective footwear must pay the difference to the vendor at the time of the transaction. No insoles, socks, etc., may be charged to the BEP. However, employees who wish to purchase these items may pay for them. BEP provides employees with two pairs of safety shoes initially and allows for additional shoes to replace worn pairs. Employees must exchange worn shoes for a replacement pair.

- 4.3 Prescription Safety Glasses:** BEP has established a \$40 limit for the cost of all available safety glasses frames. This limit applies **ONLY** to the cost of the frames. Those employees wishing to receive frames that exceed the established dollar limit will be required to pay the difference to the vendor the day the order is placed. Employees will be issued only one pair of safety glasses per prescription. The Safety Glasses Coordinator will issue an additional pair to personnel should the prescription change or other circumstances warrant such action. This action will be left to the discretion of the Coordinator. The BEP will cover the costs of the following types of lenses: (1) Bifocals, trifocals, progressive, various executive style lenses, and double segments (when deemed necessary by OEHS), (2) tinted lenses to include rose and 10 % gray, and (3) glass or plastic lenses. Special photo gray tint is available at cost to the **employee**. The employee is responsible for the cost of the tint only, not the cost of the lens. Prices for the photo gray tinting vary and will be made available during the optician's visit.

- 4.4 Respiratory Protection:** The OEHS Respiratory Protection Program (RPP) Manager will issue the appropriate respiratory protection to employees in order to complete the required work task(s). Once the RPP Manager has determined that the use of respiratory protection is required, employees may obtain a respirator using the following procedures:

- a. Coordinate with the RPP Manager for guidance when a task or operation may require the use of respiratory protection.
- b. The supervisor/foreman must contact the BEP-HU to schedule the employee(s) for respirator suitability tests and screening.
- c. Contact the RPP Manager to schedule training and fit testing once the HU has cleared the employee to wear a respirator.
- d. Comply with the instructions given by the RPP Manager during training.
- e. Contact the RPP Manager if there are any questions or comments concerning the fitting, usage, and maintenance of the issued respirator. The RPP Manager may be reached at 874-2324.

5.0 Training:

- 5.1** Employees required to wear PPE shall receive information and training at the time of the employees' initial assignment and whenever a new hazard that requires the use of PPE is introduced in their work area. Additionally, refresher training shall be provided using the on-line training module on an annual basis. This training shall comply with the OSHA PPE standard by providing employees with the following information:

- a. When PPE is necessary,
- b. What PPE is necessary,
- c. How to properly don, doff, adjust, and wear PPE,
- d. The limitations of the PPE and,
- e. The proper care, maintenance, useful life and disposal of the PPE.


The BEP shall verify that each affected employee has received and understood the required training through a written certification that contains the name of each employee trained, the date(s) of training, and that identifies the subject of the certification.

6.0 Recordkeeping.

The OEHS shall maintain records of the names of each employee trained, the date(s) of training, and copies of their training certification.

7.0 Document Revision History

Rev. #	Purpose of Revision	Eff. Date
1	Change document numbers	4/22/14

	Electrical Safety		Revision: #3
	Document Control Number: 75D-04.0-07		Date: 9/9/16
PROC.	Responsible Organization: Office of Environment, Health and Safety		
	Approved By: Neal Mohlmann	Signature: <Electronic Signature>	

1.0 Purpose:

To ensure that all employees are protected from electrical shock, burns and any other potential electrical hazards in the workplace.

2.0 Scope:

The electrical safety program applies to all DCF employees. The program covers electrical safety-related work practices and addresses electrical safety requirements for the workplace.

3.0 Roles and Responsibilities:

3.1 OEHS shall:

- a Implement and maintain a program and procedures
- b Evaluate the overall effectiveness of the electrical safety program every three years.
- c Provide or coordinate training to qualified and unqualified employees
- d Assist with the selection of the appropriate personal protective equipment
- e Develop and maintain a listing of all qualified employees
- f Audit field work annually to verify that the electrical safety program is being followed.

3.2 Office of Facilities Support (OFS) shall:

- a Obtain and maintain personal protective equipment and tools for qualified employees
- b Ensure electrical equipment is labeled with the appropriate hazard warnings
- c Assist with the annual field work audit.

3.3 Department/Division Supervisors shall:

- a Promote electrical safety awareness to all employees
- b Ensure employees comply with all provisions of the electrical safety program
- c Ensure employees receive training appropriate to their assigned electrical tasks
- d Ensure that the appropriate personal protective equipment and tools are used

3.4 Qualified Employees shall:

- a Follow the policy procedures described in this document
- b Follow Energy Control (LO/TO) 75D-04.0-10
- c Use the appropriate personal protective equipment and tools
- d Complete all training required relative to this program
- e Immediately report any concerns related to electrical safety to a supervisor or OEHS

3.5 Unqualified Employees shall:

- a Not attempt to perform work on or near live parts
- b Be trained in the hazards of electricity and any related work practices that are necessary for their safety
- c Immediately report any concerns related to electrical safety to a supervisor or OEHS

3.6 Contracted Employees shall:

- a Follow their company safety plan which must meet or exceed all applicable guidelines of this safety program
- b Comply with applicable electrical safety regulations such as OSHA and NFPA
- c Submit copies of their electrical safety program to OEHS for review

4.0 Definitions:

- 4.1 Arc Flash Hazard – A dangerous condition associated with the possible release of energy caused by an electric arc.
- 4.2 Arc Flash Risk Assessment – A study investigating a worker's potential exposure to arc flash energy, conducted for the purpose of injury prevention and the determination of safe work practices, arc flash boundary, and the appropriate levels of personal protective equipment.
- 4.3 Arc Rating - The maximum incident energy resistance demonstrated by a material (or a layered system of materials) prior to "breaking open or causing the onset of a second-degree burn injury. This rating is assigned to electrical protective clothing and is normally expressed in calories per square centimeter (cal/cm^2).
- 4.4 Energized - Electrically connected to or having a source of voltage.
- 4.5 Exposed Electrical Parts – Capable of being inadvertently touched or suitably guarded, isolated, or insulated.
- 4.6 Flash Protection Boundary – A distance from exposed live parts within which a person could receive a second degree burn if an electrical arc flash were to occur.
- 4.7 Incident Energy - The amount of energy impressed on a surface, a certain distance from the source, generated during an electrical arc event. One of the units used to measure incident energy is calories per square centimeter (cal/cm^2).
- 4.8 Ground Fault Circuit Interrupt (GFCI) - A device whose function is to interrupt the electric circuit to the load when a fault current to ground exceeds a predetermined value that is less than that required to operate the over-current protective device of the supply circuit.
- 4.9 Limited Approach Boundary - A shock protection boundary to be crossed by only qualified person (at a distance from a live part) which is not to be crossed by unqualified persons unless escorted by a qualified person.
- 4.10 Nominal Voltage – A nominal value assigned to a circuit or system for the purpose of conveniently designating its voltage class (e.g. 120/240 volts, 600 volts). The actual

voltage at which a circuit operates can vary from the nominal within a range that permits satisfactory operation of equipment.

- 4.11 **Qualified** – A person who has demonstrated skills and knowledge related to the construction and operation of electrical equipment and installations and has received safety training to identify and avoid the hazards involved. Power Plant Stationary Engineers, Electro-Machinists and Electricians are considered qualified employees on the condition that the employee has completed all required electrical safety training.
- 4.12 **Restricted Approach Boundary** – An approach limit distance from an exposed live part within which there is an increased risk of shock, due to electrical arc-over combined with inadvertent movement, for personnel working in close proximity to the live part.
- 4.13 **Shock Hazard** - A dangerous condition associated with the possible release of energy caused by contact or approach to live parts.
- 4.14 **Unqualified** –A person with little or no such training working on or near exposed energized parts. These employees have a reasonable risk of injury due to electrical shock, or other electrical hazards during their routine work duties.
- 4.15 **Working near (live parts)** - Any activity within a limited approach boundary.
- 4.16 **Working on (live parts)** - Coming in contact with live parts via tools, probes, test equipment, hands, feet, or other body parts regardless of the level of PPE worn.

5.0 Related Documents:

- 5.1 OSHA 29 CFR 1910.331 through 1910.335, Subpart S- Electrical
- 5.2 OSHA 29 CFR 1910.147 "The control of hazardous energy (lockout/tagout)"
- 5.3 NFPA 70E: "Standard for Electrical Safety in the Workplace"
- 5.4 Energy Control (LO/TO) 75D-04.0-10

6.0 Enclosures – N/A

7.0 Procedure

7.1 Training:

- a Employees must be trained and familiar with the safety-related work practices that pertain to their respective job assignments. Training will be provided when the employee is initially assigned to the job and refresher training will be provided every three years or when conditions change.
- b **Qualified Employees:**
- c All employees who face a risk of electrical shock or injury when they are working on or near exposed energized parts or parts that may become energized should receive training about the hazards associated with electricity. These include hazards of arc flash, arc blast, shock and electrocution and special precautions. At a minimum, qualified employees should be trained in and familiar with the following:
 - i Skills and techniques necessary to distinguish exposed live parts from other parts of electrical equipment.
 - ii Skills and techniques to determine the nominal voltage of exposed live parts.

- iii Approach distances specified in NFPA 70E Tables 130.4(D)(a) and 130.4(D)(b) and the corresponding voltages to which the qualified person will be exposed.
- iv Decision making process necessary to be able to do the following:
 - 7.1.c.iv.1 perform the job safety planning
 - 7.1.c.iv.2 identify electrical hazards
 - 7.1.c.iv.3 assess the associated risk
 - 7.1.c.iv.4 select the appropriate risk control methods from the hierarchy of controls identified in NFPA 70E 110.1(G) including PPE.
- d A person can be considered qualified with respect to certain equipment and methods but is unqualified for others.
- e An employee who is undergoing on-the-job training and who, in the course of such training, has performed duties safely at his or her level of training and who is under the direct supervision of a qualified person shall be considered to be qualified.
- f Qualified employees shall be trained in Lockout/Tagout (LO/TO) procedures and shall adhere to the BEP Energy Control (LO/TO) 75D-04.0-10.
- g Unqualified Employees shall be trained in and familiar with hazards associated with electrical energy, shock hazards, LO/TO and any electrically related safety practices that pertain to their respective job assignments.

7.2 Equipment Labeling:

- a Switchboards, switchgear, panel boards, industrial control panels, and motor control centers should be field marked as needed and during equipment replacement or upgrading, to warn workers of potential electric arc flash hazards. BEP or any contracted company responsible for the replacement or upgrade shall label the equipment.
- b Labels shall be either of the following, depending on the available resources of the BEP:
 - i When an arc flash risk assessment is performed, labels shall include information on nominal system voltage, arc flash boundary, available incident energy and corresponding working distance and minimum arc rating of clothing.
 - 7.2.b.i.1 The arc flash risk assessment must be reviewed whenever significant changes are made to the system, or at most, every five years.
 - ii The DANGER label shall be used when calculated incident energies are not presently available.
 - 7.2.b.ii.1 The DANGER label should remind a qualified employee who intends to open the equipment for analysis or work:

- Electric arc flash hazard exists
- Turn off all power before opening
- Use appropriate personal protective equipment (PPE)

7.3 Panel Schedules: Any work performed inside electrical panels shall be updated accordingly per OFS requirements.

7.4 Working on or near live parts:

- a Working on the equipment in a de-energized state is required unless de-energizing introduces an increased hazard or is infeasible. The only exceptions include troubleshooting and diagnostic testing by qualified employees. Refer to the Energy Control (LO/TO) 75D-04.0-10 for additional guidance.
- b Live parts operating at less than 50 volts to ground and there is no increased exposure to electrical burns or to explosion due to electrical arcs; do not need to be de-energized.
- c Qualified employees shall not be assigned to work alone, except for replacing fuses, operating switches, or other operations that do not require the employee to contact energized high voltage conductors or energized parts of equipment, clearing trouble, or emergencies involving hazard to life or property.
- d Employees may not reach blindly into areas which may contain energized parts.
- e Barricades and/or attendants should be used to prevent or limit employee access to work areas exposing employees to un-insulated energized conductors or circuit parts.

7.5 Steps to ensure conditions for electrically safe work:

- a The following steps should be followed to ensure electrically safe work conditions. These steps apply if a qualified employee is working within the limited approach boundary or if the employee interacts with equipment where the conductors or circuit parts are not exposed but an increased risk of injury from an arc flash hazard exists:
- b Identify all sources of power to the equipment
- c Remove the load current, and then open the disconnecting devices for each power source.
- d Where possible, visually verify that blades of disconnecting devices are fully open or that drawout-type circuit breakers are fully withdrawn.
- e Apply lockout/tagout devices in accordance with Energy Control (LO/TO) 75D-04.0-10.
- f Test each phase conductor or circuit part with an adequately rated test instrument to verify that the equipment is de-energized.

- g Properly ground all possible sources of induced voltage and stored electric energy before touching

7.6 Portable electrical equipment and extension cords:

- a Extension cords may only be used as temporary wiring.
- b Extension cords must be protected from damage. Flexible cords may not be run through windows or doors unless protected from damage, and then only on a temporary basis. Flexible cords may not be run above ceilings or inside or through walls, ceilings or floors, and may not be fastened with staples or otherwise hung in such a fashion as to damage the outer jacket or insulation.
- c Extension cords used with grounding type equipment must contain an equipment-grounding conductor (i.e., the cord must accept a three-prong, or grounded, plug).
- d Portable cord and plug connected equipment and extension cords must be visually inspected before use on each shift for external defects such as loose parts, deformed and missing pins, or damage to outer jacket or insulation. Any defective cord or cord-and-plug-connected equipment must be removed from service and no person may use it until it is repaired and tested to ensure it is safe for use.
- e Attachment plugs and receptacles may not be connected or altered in any way that would interrupt the continuity of the equipment grounding conductor. Additionally, these devices may not be altered to allow the grounding pole to be inserted into current connector slots. Clipping the grounding prong from an electrical plug is prohibited.
- f All portable electric equipment and flexible cords used in highly conductive work locations, such as those with water or other conductive liquids, or in places where employees are likely to contact water or conductive liquids, must be approved for those locations.
- g Extension cords with a "pigtail" or "built in" GFCI shall be used in wet locations.
- h Employees' hands may not be wet when plugging and unplugging flexible cords and cord and plug connected equipment, if energized equipment is involved.
- i Energized plug and receptacle connections may be handled only with insulating protective equipment if the condition of the connection could provide a conducting path to the employee's hand (if, for example, a cord connector is wet from being immersed in water).
- j Test instruments and equipment used by qualified persons should be visually inspected for external defects and damage before the equipment is used. Test instruments and equipment and their accessories shall be rated for the circuits and equipment to which they will be connected and shall be designed for the environment in which they will be used.

7.7 General Electrical Safety:

- a Relocatable power strips (RPT) must be plugged directly into a wall outlet and should not be plugged in series with other RPT's or in conjunction with extension cords.
- b Electrical outlets located in damp or wet locations should be ground-fault circuit interrupter (GFCI) protected.
- c Cords must be protected by a cord protector when they extend into a walkway or other path of travel to avoid creating a trip hazard.
- d Portable space heaters are prohibited.
- e Appliances must be plugged directly into a wall receptacle and are prohibited from use with an extension cord or power strip. This includes, but is not limited to, the following:
 - i Air conditioner (portable/room), coffee pot, microwave ovens and toaster/toaster ovens.


7.8 Personal Protective Equipment (PPE):

- a Personal Protective Equipment (PPE) should be used and selected for the specific parts of the body to be protected and the work to be performed. Electrical PPE should meet the following requirements:
 - i Heavy duty leather gloves or insulated rubber gloves, with the proper voltage rating for circuits or equipment that is being worked on
 - ii Dielectric footwear
 - iii Clothing must be of non-conductive material
 - iv Safety glasses and/or face shield wherever there is danger of injury from electric arcs or flashes or from flying objects resulting from electrical explosion
- b NFPA 70E Table 130.7(C)(15)(A)(a) shall be used to identify when arc flash PPE is required.
- c When arc flash PPE is required NFPA 70E Table 130.7(C)(15)(A)(b) shall be used to determine the arc flash PPE category.
- d NFPA 70E Table 130.7(C)(16) shall be used to determine the required PPE for the task. This clothing and equipment shall be used when working within the arc flash boundary.
- e Jewelry (rings, watches, necklaces, keychains, etc.) should be removed.
- f Use insulated tools manufactured to ASTM F1505 standards.

- g PPE should be inspected before each use to ensure they are in good condition. Any defective PPE should be removed from service.

Document Revision History

Rev. #	Purpose of Revision	Eff. Date
1	Changed document numbers to match new scheme	4/15/2014
2	Number changes to comply with Documentation Requirements	11/16/2015
3	Update procedure to reflect changes to the NFPA 70E 2015 standard	9/9/16

	Construction Safety Permits		Revision: #4
	Document Control Number: 75D-04.0-08		Date: 04/18/14
PROC	Responsible Organization: Office of Environment, Health and Safety		
	Approved By: Neal Mohlmann	Signature: <SIGNED>	

1.0 Purpose:

The purpose of this procedure is to provide guidance for completing and posting BEP Construction Permits. Construction permits communicate construction safety requirements to BEP employees and contractors and allow the Office of Environment, Health & Safety (OEHS) to ensure that affected hazardous building materials such as asbestos and lead-based paint are abated prior to work.

2.0 Scope:

This procedure applies to work other than routine maintenance performed by BEP employees and/or contractors. Such work includes, but is not limited to, renovations, demolitions and "facelifts", in which existing building components such as ceilings, floor coverings or walls will be disturbed or altered. This procedure applies to DCF only.

3.0 Roles and Responsibilities:

3.1 For work which falls within the scope of this procedure, BEP construction personnel (in house projects) and OFS contract coordinators (contracted work) shall ensure that there is a posted construction permit in the area prior to beginning any work. If there is no permit posted at the site, personnel shall not begin demolition activities.

a. BEP personnel involved in the type of work falling under the scope of this procedure MUST complete the on-line training modules for asbestos and lead awareness and all other applicable environmental, health and safety training prior to performing these projects.

3.2 The lead shop supervisor or the OFS contract coordinator shall be responsible for the correct disposition of all recyclable materials, universal wastes, and/or hazardous wastes including but not limited to mercury switches/thermostats, light ballasts containing PCBs, batteries, and light bulbs.

4.0 Procedure:

The supervisor of the lead shop (or the COR for contracted work) shall complete Section I of the Construction Permit Form (75-00 (4.4.6) 32 DC Form) and forward it to the OEHS program manager one week in advance of the proposed work. OEHS shall notify the requestor within 2 business days with the status of the permit.

- 4.1 Prior to commencing work, the OEHS will conduct an on-site hazard analysis and issue a completed construction permit to the lead shop supervisor or the COR for posting. The permit will assign environmental, health and safety requirements. It will also list engineering controls and personal protective equipment (PPE) required to safely conduct the activity. Burn Permits (BEP Form 9901) are still required, where applicable. When asbestos and/or lead-based paint are present and will be impacted as a result of the proposed work, OEHS will coordinate abatement actions prior to demolition.
- 4.2 Based on the requirements of the construction permit, the lead shop supervisor or contract coordinator and project superintendent (for contract work) and an OEHS representative will perform a safety briefing on-site with employees to discuss the proper job methods, PPE and sequence of work. The briefing will be conducted prior to the start of any work.
- 4.3 The OEHS will conduct unannounced safety inspections of job sites to ensure that requirements are implemented and are effective for the identified hazards. Inspection results will be forwarded to the CO (contracted projects) or the Chief, OFS (in-house projects).
- 4.4 In the event that on-site personnel discover suspected asbestos or lead based paint, they are to immediately cease all work in the area and notify the OEHS program manager. Work may resume only after qualified personnel from OEHS have inspected the area and cleared it for continued activity.

5.0 Related Documents:

75D-03.0-02 Used Battery Packaging
75D-03.0-03 Fluorescent Bulb Crushing
75D-03.0-04 Management of Hazardous Waste

6.0 Document Revision History

Rev. #	Purpose of Revision	Eff. Date
1	Change due the functional realignment.	12/12/06
2	Minor grammatical changes and clarifications	7/24/08
3	Three year review – no changes	7/20/11
4	Changed doc number	04/18/2014



Office of Environment and Safety
Construction Permit Form 75D-04.0-08F
 Permit No. _____

INSTRUCTIONS: This permit must be completed for any project involving demolition, major equipment installation or removal, construction, modification, facelifts, or major repair. The requestor must fill out Section I and e-mail the form to the OEHS's Construction Permit Coordinator. OEHS personnel will issue a permit number, conduct a site visit, complete Section II, electronically sign and date, and send back to the requestor. The requestor shall print, sign/date, post the permit and e-mail the form back to OEHS when the project is ended.

SECTION I - PROJECT INFORMATION			
Permit Start Date:	Personnel: <input type="checkbox"/> In-House <input type="checkbox"/> Contractor	Project No. Foreman:	
Location:		Contract No.	Task No.
Contracting Officer:	COR:	Coordinator:	
Phone:	Phone:	Phone:	
Description of Project:			

SECTION II - GENERAL REQUIREMENTS			
Date OEHS Received Construction Permit To Evaluate:		Date:	
YES	NO	N/A	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Did OFS/COR notify affected building occupants of project?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Was the project's safety plan (where applicable) approved by OEHS?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Were all project workers briefed on environment, health & safety requirements?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Does the BEP's lockout/tagout policy apply & if so, is everyone trained & briefed?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is a SHD-approved fall protection plan on-site and workers briefed?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is a burn permit required for the project (contact Safety and Health Division on 4-2201)?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are emergency telephone numbers posted on-site?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are the appropriate personal protective equipment (PPE) signs posted on-site?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are appropriate fire extinguishers on-site and charged?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Where life safety systems are impaired, are equivalent measures provided?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are hand/powered tools/cords in good condition and good working order?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Do scaffolding and ladders meet OSHA requirements?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is there any identified or suspected Asbestos Containing Material (ACM) in the area?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Will this project disturb any identified or suspected ACM?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Has a lead-based paint (LBP) survey been conducted?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Will LBP be impacted and if so, has a SHD-approved LBP abatement plan posted on-site?
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are MSDSs for all hazardous chemicals approved and on-site (contractors only)?
			Are there penetrations in fire resistive rated assemblies that need to be stopped and labeled?
			<input type="checkbox"/> 2 hr. Partition <input type="checkbox"/> 1 hr. Partition <input type="checkbox"/> Ceiling <input type="checkbox"/> Floor
Description:			

REQUIRED ENGINEERING CONTROLS


<input type="checkbox"/> Dust Barrier	<input type="checkbox"/> Local Exhaust (Tool)
<input type="checkbox"/> Window Exhaust Fan	<input type="checkbox"/> HEPA Vacuum
<input type="checkbox"/> Pedestal Fan	<input type="checkbox"/> Housekeeping
<input type="checkbox"/> Wet Methods	<input type="checkbox"/> Exhaust Scrubber (forklift)

REQUIRED PERSONAL PROTECTIVE EQUIPMENT

<input type="checkbox"/> Head Protection (type):	<input type="checkbox"/> Protective Clothing (type):
<input type="checkbox"/> Gloves (type):	<input type="checkbox"/> Eye/Face Protection (type):
<input type="checkbox"/> Respirator (type):	<input type="checkbox"/> Foot Protection:
<input type="checkbox"/> Hearing Protection (type):	<input type="checkbox"/> Other (specify):

PERSONNEL SIGNATURES

	Date	Phone
Contractor/Shop Representative:		
COR (if applicable):		
OEHS Safety Representative:		
OEHS IH Representative:		
Date Construction Permit Posted	Date:	
Date Construction Permit Ended	Date:	

	Machine Guarding	Revision: #2
	75D-04.0-09	Effective: 6/09/2017

1.0 Purpose

To protect personnel, operators and those in the vicinity, from any machine part, function, or process that may cause injury. These hazards include but are not limited to; machine points of operation, nip points, rotating parts, flying chips, and sparks, etc.

2.0 Scope: DCF

3.0 Roles and Responsibilities:

3.1 The Office of Environment, Health and Safety (OEHS) has overall administrative and technical responsibility for this program and shall:

- a. Conduct regular inspections to identify unguarded equipment or other machine related hazards and recommend appropriate corrective actions;
- b. Determine the machine hazard risk severity and assign a risk assessment code with an abatement date for all machine guarding service requests through Maximo;
- c. Review new equipment specifications to ensure appropriate machine guarding is designed into the equipment in accordance with EHS Review Procedure 75D-07.0-01;
- d. Inspect new equipment installation to ensure adequate guarding and other environmental, health and safety factors have been adequately addressed;
- e. Identify affected positions that require machine guarding training and see that the training is provided through the Treasury Learning Management System (TLMS) or other means;
- f. Review and update this policy as needed.

3.2 Office of Human Resources (OHR) shall:

Provide initial and refresher machine guarding training to all affected employees through TLMS or other means.

3.3 Office of Acquisition (OA) shall:

Ensure all requests for equipment/machine purchases are reviewed by OEHS and that all requirements are met in equipment/machine acquisitions.

3.4 Supervisors shall:

- a. Ensure safeguards are in place during normal operation, after equipment maintenance and prior to equipment start up;
- b. Ensure new employees are trained on the requirements of machine guarding;
- c. Ensure employees receive TLMS machine guarding refresher training every 3 years or more frequently if equipment changes or employees' work practices are not compliant; and
- d. Visually inspect equipment safeguards prior to equipment start up and immediately remove equipment with missing machine guards from service until guards are replaced and in proper working order.

3.5 Employees/Operators shall:

- a. Receive machine guarding training through TLMS or other means;
- b. Know the potential hazards involved with the equipment you use or work around and know what safeguards are in place for your protection.
- c. Inspect equipment prior to use and take immediate action to notify supervisor of any machine guarding deficiencies;
- d. Comply with all guarding, work practices, and PPE procedures;
- e. Not attempt to operate equipment/machines with missing safeguards;
- f. Cease work in case of the failure of a required machine guard and report the failure to a supervisor. DO NOT resume work on that equipment until the guard is either repaired or replaced; and
- g. Never defeat or bypass a machine guard or place any part of their body inside a machine's moving parts. Equipment operators shall immediately notify their supervisors if they discover defeated or bypassed guards. Employees found defeating or bypassing guards or interlocks may receive disciplinary action.

3.6 Machinists, Electro-Machinists and Facilities Shops Employees shall:


- a. Complete all guarding requests as specified by the risk assessment code in the Maximo service request or otherwise address in a timely manner; and,
- b. Comply with Lockout/Tag-out (LO/TO) procedures and must return and secure all guards after repairs have been completed. Maintenance personnel found omitting or disabling guards after repairs may receive disciplinary action.

4.0 RELATED DOCUMENTS:

EHS Contractor Requirements 75D-07.0-04
EHS Review 75D-07.0-01
Energy Control (LO/TO) 75D-04.0-10

5.0 Document Revision History:

Rev. #	Purpose of Revision	Eff. Date	Approved by:
1	Change document numbers to new scheme	6/15/2014	N. Mohlmann
2	Three year policy review and update.	6/06/2017	N. Mohlmann

	Energy Control (LO/TO)		Revision: #3
	Document Control Number: 75D-04.0-10		Date: 10/20/15
PROC.	Responsible Organization: Office of Currency Manufacturing, OCMDCF Office of Facilities Support		
	Approved By: Dan Carver/Dave Hatch		Signature: <SIGNED>
			Signature: <SIGNED>

1.0 Purpose:

To ensure all employees are protected from accidental startup of machines and equipment, and to prevent the release of stored energy during servicing or maintenance.

2.0 Scope:

The energy control program, Lockout/Tag out (LO/TO), applies to all DCF employees who perform duties that involve the maintenance or repair of equipment or who otherwise access hazardous parts of equipment in a de-energized state.

3.0 Roles and Responsibilities:

3.1 The Office of Environment, Health and Safety/Safety and Health Division (OEHS) is responsible for implementing and maintaining a policy, program and procedures. OEHS is also responsible for providing training to authorized and affected employees and for monitoring adherence to the procedures and effectiveness of procedures via periodic inspection.

3.2 Authorized Supervisors shall:

- a. Ensure procedures and isolating device tables remain posted at machinery and ensure the procedures are followed;
- b. Report all installations of equipment (used/new) into respective work area(s), as well as equipment modifications to the OEHS (for inclusion into the LO/TO program);
- c. Ensure that locks and tags assigned to work areas are available in the event additional locks and tags are needed;
- d. Conduct random inspections to ensure LO/TO is being instituted when necessary; and

- e. Report all new employee hires requiring LO/TO training to the OEHS prior to beginning work assignment.

3.3 Authorized Employees shall:

- a. Lock and tag out equipment anytime maintenance or servicing work could cause injury if the equipment suddenly becomes energized and/or begins to operate or move;
- b. Notify affected personnel prior to the initiation of LO/TO; and
- c. Follow equipment specific procedures.

3.4 Limited Authorized Employees (Bookbinders) shall:

- a. Contact Electro-Machinist prior to initiating LO/TO;
- b. Place lock and tag on equipment following the electro-machinist's lock and tag; and
- c. Follow equipment specific procedures.

3.5 Affected/Other Employees shall:

- a. Not attempt to start, energize, or use machine or equipment, upon initiation of LO/TO; and
- b. Assist authorized employees as needed.

4.0 Exceptions to De-energization:

- 4.1 Servicing and/or maintenance which takes place during normal production operations, such as, minor tool changes and adjustments and other minor servicing activities, which take place during normal production operations, are not covered by LO/TO requirements if they are routine, repetitive, and integral to the use of the equipment for production, provided that the work is performed using alternative measures which provide effective protection. Examples of minor servicing activities include removal of certain types of paper jams, minor cleaning, lubricating and adjusting operations.
- 4.2 Where service or maintenance is being done on cord and plug connected equipment for which exposure to the hazards of unexpected energization of the equipment is controlled by the unplugging of the equipment from the energy source and by the plug being under the exclusive control of the employee performing the servicing or maintenance.
- 4.3 Under conditions where de-energization is not suitable/practical due to the nature of service or where inching, jogging, testing, or other tasks which require the equipment to be energized, the authorized employee performing the work will restrict access to that area by barricading it off (cone, tape, chain, rope, etc.) and/or only allowing admittance

to authorized and affected personnel that need to perform or assist in maintenance services in that area. In this situation, safety switches must be utilized and only warning tags should be placed on isolating devices (safety switches, inch buttons, etc.).

- 4.4 Under conditions where equipment is identified as out-of-service for long term repair or replacement, a black lock and Out-of-Service Tag will be placed on the equipment. Note: This designation eliminates equipment from the purview of the Control of Hazardous Energy requirements.
- 4.5 Warning - Under these conditions, authorized and affected personnel must use extreme caution and utilize the equipment's safety devices.
- 4.6 These exceptions do not apply under the following conditions:
 - a. An employee is required to remove or bypass a guard or other safety devices; or
 - b. An employee is required to place any part of his or her body into an area on a machine or piece of equipment where work is actually performed upon the material being processed (point of operation) or where an associated danger zone exists during a machine operating cycle.

5.0 Equipment De-energization Procedure:

5.1 Maintenance Call

- a. When maintenance to a piece of equipment is necessary for routine maintenance, preventive maintenance, or emergencies, the supervisor of that work area (or designee) must call the appropriate shop(s) to provide the necessary service(s).
- b. Once maintenance personnel have assessed the equipment and made a determination of what additional personnel are needed to effect the repairs, the supervisor of the affected work areas must contact the additional shops, requesting maintenance service. All energy sources that may have an effect on the service being performed must be de-energized, and locked and tagged out by maintenance personnel. The LO/TO matrix shall be used as a guide.
- c. The authorized employee(s) shall use the equipment specific procedures posted on or near the equipment to assure that all the information pertaining to the energy sources for that piece of equipment is understood, before proceeding with the service.

5.2 Equipment De-energization:

All necessary/appropriate energy sources for the equipment being serviced must be safely de-energized (shut down) and isolated by an authorized employee, as follows:

- a. Before turning off the energy source(s) to a machine, the authorized employee must check to make sure that the work areas supervisor and affected employees are informed, and that it is safe to de-energize the machine.

- b. Disconnect all circuits from energy sources following the machine-specific energy control procedures. **Devices, such as push-buttons, selector switches or mechanical disconnects, shall not be used as the sole means of disconnecting the equipment from the energy sources.**
- c. All capacitors shall be safely discharged and high capacity elements shall also be short-circuited and grounded.
- d. All steam, pneumatic, hydraulic, mechanical, Kinetic or other energy sources shall be brought to a zero energy state (bleed, vent, drain, etc.) or physically restrained or blocked off to immobilize mechanical equipment following the machine-specific energy control procedures. Block, clamp or chain in place any mechanisms under tension or compression.

5.3 Verification of the De-energized Condition

- a. The authorized employee shall activate the equipment operating controls, such as, push buttons, selector switches, valves, and electrical interlocks, or otherwise verify that the equipment cannot be inadvertently restarted; and
- b. Verify that all steam, pneumatic, hydraulic, mechanical, or other energy sources are brought to a zero energy state (bleed, vent, etc.) or physically restrained or blocked off to immobilize mechanical equipment following the machine-specific zero energy verification procedures.

6.0 Lockout and Tag out Requirements

6.1 Both locks and tags are required to be placed on each disconnecting isolating devices (energy sources) used to de-energize the equipment (in the off position) while the machine is being serviced by authorized employees, before servicing and/or maintenance can commence.

6.2 Lockout/Tag out Supply:

- a. A lock with a red body and vertical shackle clearance of three inches is the only type of lock to be used for LO/TO authorized employees. This lock may not be used for any other purpose (such as securing toolboxes or lockers).
- b. In addition to locks and tags, other hardware such as: chains, wedges, key blocks, adapter pins, self-locking fasteners, valve covers, hasps, etc., shall be provided and used, as applicable, for isolating, securing or blocking of machines or equipment from energy sources.
- c. Lockout Device Assignments
 - i. Authorized Employee Lock – Red
 - ii. Shop/Locks – Yellow
 - iii. Office of Environment and Safety Locks – Blue

d. Ownership & Location of Devices:

- i. Each authorized shop, where the need to lockout equipment may be necessary will maintain an inventory of yellow locks, tags, and keys.
- ii. Every authorized maintenance employee will be issued personalized tags, red padlocks, and keys that will be used only to apply isolating devices when performing service or maintenance activities on BEP equipment/machinery.

6.3 Lockout and Tagout Equipment Specific Procedures:

Equipment specific procedures will be found on or near the equipment and in the area/section supervisor's office.

- a. Lockout: After completing the safe de-energization of all energy sources, the authorized employee shall apply his/her own padlock to each energy source specified on the machine-specific energy control procedures.
- b. Tag out: Where a lock and tag cannot be affixed directly to the energy isolating device, the tag shall be located as close as safely possible to the device, in a position that will be immediately obvious to anyone attempting to operate the device.
- c. Multiple (Group) Lockout/Tag out: When more than one authorized person is going to work on the same equipment, each authorized person must install his/her locks and personalized tag(s) on the lockout device(s). Multiple lockout/tag outs will prevent the control from being operated or activated until all locks and tags are removed. **The primary responsibility for the group lockout lies with the shop managing the job.**
- d. Shift Change Coordination: When authorized employees complete their shift, they cannot remove their locks and tags until their relief or their immediate supervisor installs their personalized (or shop) locks and tags on the lockout devices. If the incoming employee cannot be located, then the shop supervisor (or designee) must place a shop lock to the isolating device(s).
- e. Non-Bureau Personnel (Contractors): Whenever contractor personnel are engaged in activities covered by the scope and application of the LO/TO program, the Bureau and the contractor shall inform each other of their respective procedures. In addition, it is the Bureau's policy that contractors adhere to the Bureau's procedures.

6.4 Removal of Locks and Tags:

Locks and tags can only be removed after all maintenance services have been completed or a transfer of locks has occurred. **Locks and tags must never be removed by anyone but the authorized person who applied the lock/tag, except in an emergency or under unusual circumstances.**

- a. If it becomes necessary to remove a lock or tag when the authorized employee (owner) is not available, the lock/tag owner's supervisor must be notified. The supervisor may remove a lock/tag only after each one of the following steps has been taken:
 - i. It has been verified that the lock/tag owner is not at the work site;
 - ii. Attempts have been made to contact the lock/tag owner;
 - iii. A determination has been made as to why the lock/tag was applied;
 - iv. A shop supervisor or representative from OEHS/SHD has inspected the equipment and determined that the removal of the lock/tag does not create a safety hazard;
 - v. Provisions have been made to notify the lock/tag owner of the removal BEFORE the employee returns to resume work on the equipment (if previous attempts were unsuccessful); and
 - vi. OEHS must be notified if a lock/tag has been removed.

7.0 Restoration of All Equipment Services:

7.1 Electrical:

After the servicing and/or maintenance are complete and the equipment is ready for normal production operations, the authorized employee shall:

- a. Verify that circuits and equipment are in condition to energize. Before circuits and equipment are re-energized, appropriate tests and visual inspections shall be conducted to verify that all tools, mechanical restraints and electrical jumpers, shorts, and grounds have been removed, so that the circuits and equipment are in a condition to be safely energized.
- b. Verify that employees are clear of circuits and equipment. Before circuits and equipment are re-energized, all affected employees shall be notified to stay clear of the circuits and equipment. There shall also be a visual verification that all employees are in the clear.
- c. Remove each lockout/tag out device from each disconnecting means/isolating device (energy source).
- d. Notify the employees responsible for operating these machines or processes when circuits and equipment are ready to be energized. These employees shall provide assistance as necessary to safely energize the circuits and equipment.
- e. Operate the energy isolating devices to restore energy to the machine(s) or equipment.

7.2 Other Types of Energy Sources:

After the servicing and/or maintenance are complete and the equipment is ready for normal production operations, the authorized employee shall:

- a. Visually check the area around the machine(s) or equipment to ensure that no one is exposed to danger;
- b. Remove all LO/TO devices from the electrical, mechanical, pneumatic, hydraulic and all other energy sources; remove all tools from the machine(s) or equipment; reinstall guards and ensure all employees are in the clear; and
- c. Operate the energy isolating devices to restore energy to the machine(s) or equipment.

8.0 Periodic Inspections

8.1 Periodic Inspections will be performed by an authorized employee (or employees) at least annually to verify that the procedures are adequate and being properly applied. The authorized employee(s) performing the inspection will be other than the one(s) utilizing the energy control procedure being inspected.

8.2 Annual certification of the periodic inspection will be in accordance with 29 CFR 1910.147(c)(6)(ii) and will specify the following:

- a. The machine or equipment on which the energy control procedure was used;
- b. The date of the inspection;
- c. The names of the employee(s) included in the inspection; and
- d. The name(s) of the person(s) who performed the inspection.


9.0 Related Documents

Operational Control 75D-00.0-08

Individual Equipment Specific LO/TO Procedures 75.00 (4.4.6) 14 Series

Control of Hazardous Energy Matrix 75.00 (4.4.6) 14.0 DC Form

Rev. #	Purpose of Revision	Eff. Date
1	Annual revision and additional information added Change review date	7/14/10 7/3/13
2	Changed document numbers for new scheme	4/15/14
3	Changes in document made to update approved by personnel, responsible organization, and references to post maintenance checklist.	10/20/15

	DC Fall Protection Procedure		Revision: #1
	Document Control Number: 75D-04.0-11		Date: 04/15/2014
PROC.	Responsible Organization: Office of Environment, Health and Safety		
	Approved By: Neal Mohlmann	Signature: <SIGNED>	

1.0 Purpose:

Falls are among the most common causes of serious work-related injuries and deaths in the work environment. This procedure establishes the minimum requirements and methods necessary to protect workers from potential fall hazards at the DCF in accordance with OSHA standards. This procedure outlines approved fall protection systems and the roles and responsibilities involved to safely perform work from heights greater than 4ft and from controlled access areas where possible fall hazards exist.

2.0 Scope:

The fall protection program applies to all DCF employees and contractors and covers fall protection responsibilities, acceptable practices, and required procedures.

3.0 Definitions:

- 3.1 Anchorage – a secure point of attachment for lifelines, lanyards, or deceleration devices. (Anchorage or Anchor point is also known as the tie-off point)
- 3.2 Buckle – any device for holding the full body harness closed around the employee's body.
- 3.3 Connector – a device used to connect parts of the personal fall arrest system and positioning device systems together (i.e., carabiners, buckles, D-rings, or snap-hooks).
- 3.4 Controlled Access Zone – areas without appropriate fall protection and where access is controlled.
- 3.5 Competent Person – a person who, because of training and experience, is capable of identifying hazardous or dangerous conditions associated with falls and is authorized to take prompt corrective measures to eliminate the conditions or hazard.
- 3.6 Deceleration Device – any mechanism, such as a rope grab, rip stitch lanyard, specially woven lanyard, tearing or deforming lanyards, automatic self-retracting lifelines/lanyards, etc., which serves to dissipate a substantial amount of energy during a fall arrest, or otherwise limit the energy imposed on an employee during fall arrest.
- 3.7 Energy Absorbing Lanyard (EAL) - a type of safety lanyard that lessens fall forces by ripping stitched webbing. (Energy absorbing lanyard is also known as a shock absorbing lanyard.)
- 3.8 Deceleration Distance – the additional vertical distance a falling employee travels, excluding lifeline elongation and free fall distance, before stopping, from the point at which the deceleration device begins to operate. Measured as distance between

- employee's full body harness attachment point at the moment of activation (or onset of fall arrest forces) of the deceleration device during a fall, and the location of that attachment point after the employee comes to a full stop.
- 3.9 Failure – load refusal, breakage, or separation of component parts. Load refusal is the point where the ultimate strength is exceeded.
 - 3.10 Free Fall – the act of falling before a personal fall arrest system begins to apply force to arrest the fall.
 - 3.11 Full Body Harness – straps which may be secured about the employee in a manner that will distribute the fall arrest forces over at least the thighs, pelvis, waist, chest and shoulders with means for attaching it to other components of a personal fall arrest system.
 - 3.12 Guardrail System – a barrier guard consisting of a top-rail, mid-rail, and toe-board for all open sides of a walking/working surface (i.e., roof, floor, platform, scaffold, mezzanine, etc.) erected to prevent employees and objects from falling to lower levels.
 - 3.13 Hole – a gap or void two inches or more in its least dimension, in a floor, roof, or other walking/working surface.
 - 3.14 Lanyard – a flexible line of rope, wire rope, or strap which generally has a connector at each end for connecting the full body harness to a deceleration device, lifeline, or anchorage.
 - 3.15 Leading Edge – the unprotected side and edge of a floor, roof, formwork for a floor, or deck/platform which changes location as additional surfaces are constructed.
 - 3.16 Lifeline – a component consisting of a flexible line for connection to an anchorage at one end to hang vertically (vertical lifeline), or for connection to anchorages at both ends to stretch horizontally (horizontal lifeline), and which serves as a means for connecting other components of a personal fall arrest system to the anchorage.
 - 3.17 Personal Fall Arrest System (PFAS) – a system used to arrest an employee in a fall from a working level. A PFAS consists of an anchorage, connectors, full body harness, lanyards, deceleration devices, lifelines, or suitable combinations of these.
 - 3.18 Personal Fall Restraint System (PFRS) – means a fall protection system that prevents the user from falling any distance. The system is comprised of an anchorage, a full body harness, connectors, and other equipment such as a lanyard or lifeline, etc.
 - 3.19 Qualified Person – a person with an engineering degree and who is knowledgeable in structural construction, design, and the requirements of fall protection systems.
 - 3.20 Safety Nets – a stretched out mesh netting system supported by panels and wires connected to the side of the building designed to catch a worker who has fallen off a leading edge.
 - 3.21 Scaffold – A temporary elevated platform and its supporting structure used for supporting workmen or materials or both.
 - 3.22 Snap hook – a connector comprised of a hook-shaped member with a normally closed keeper, or similar arrangement, which may be opened to permit the hook to receive an object and, when released, automatically closes to retain the object.
 - 3.23 Rescue – the safe recovery of a fallen individual from a hanging position.
 - 3.24 Total Fall Distance – means the sum of the length of lanyard (6ft), the deployment of personal energy absorber (3½ft), the harness stretch (typically 1ft), the average distance from back D-ring to the sole of the foot on 6' worker (5ft), and a safety factor (3ft), equals the total fall distance (18 ½ ft).
 - 3.25 Tranfasteners – a star-wheel device which allows continuous movement along a cable and eliminates the need for the user to detach and reattach when changing directions or crossing cable supports.

- 3.26 Unprotected sides and edges** – means any side or edge (except at entrances to points of access) of a walking/working surface (floor, roof, ramp, or runway) where there is no wall or guardrail system at least 39 inches high.

4.0 Fall Protection Systems:

- 4.1** One of the following approved fall protection systems shall be used whenever working in the DCF over four feet from surface to the next level.
- 4.1.1 Guardrails** – A guardrail system consisting of the following: (1) A top rail at least 42 inches in height above walking level and capable of withstanding a horizontal load of at least 200 pounds; (2) Mid-rails positioned as 21 inches in height and capable of withstanding a horizontal load of at least 150 pounds; (3) And where tools or equipment may be likely to fall from a work surface height to a working level below shall be protected by 4 inch minimal height toe-boards.
- 4.1.2 Personal Fall Arrest System (PFAS)** – As defined in section 3.0, the PFAS shall (1) only be used by individuals who have been properly trained on BEP's proprietary Mansafe/Latchway Fall Arrest System. The components used as part of the fall arrest systems shall be (2) compatible and designed specifically for fall protection. The BEP's PFAS has anchor points capable of supporting 5,000 pounds for each employee attached. Users of the system shall (3) not exceed the system's weight capacities/forces or stress the system in a manner that may cause possible failure. The total fall distance shall be (4) calculated and approved by a competent person prior to starting work. The system shall be (5) rigged to provide the user with a total fall deceleration distance of no greater than six feet (i.e., the deceleration device shall stop the fall within 3 ½ feet of activation). Components of the system shall be (6) thoroughly inspected by the user and a designated competent person prior to, and at the end of each use. Damaged or worn equipment shall be (7) marked/tagged and not used (i.e., permanently discontinued). An acceptable means of rescue for individuals who may fall shall be (8) provided for prior to being permitted to perform work. Rescue of fallen individuals shall (9) occur immediately if the worker uses an approved device or procedure that would return the worker back to the safety of the working surface, another safe lower surface, or by prompt emergency response of the DC Fire and Rescue Service. Rescue response should occur preferably within 15 minutes of the fall notification/observation. Should a fall occur, the harness, deceleration device, and all harness fittings shall be (10) permanently removed from service.
- 4.1.3 Personal Fall Restraint System (PFRS)** - this system, as defined in section 3.0, shall be (1) used only when there is no danger of having to arrest a fall. The length of travel of the horizontal lifeline shall be (2) arranged in such a manner that it does not allow the user to reach an unprotected edge in any direction. Only individuals who are properly trained in the use of fall restraint systems shall (3) use the system. System anchor points

shall be (4) rated for 3,000 lbs. System components shall be (5) inspected by the user and a designated competent person prior to use. Control line attachment points shall be (6) arranged so as not to present a new hazard (i.e. tripping, etc.). Exact measurements shall be (7) taken prior to being permitted to perform work.

- 4.1.4 Safety Net System – As defined in section 3.0, the mesh netting of a safety net system shall be (1) no more than 6" wide. The netting shall be (2) installed by a licensed installer or qualified/competent person and as near the surface as possible but no further than 30 feet below. The installer or qualified/competent person shall (3) test the system after initial installation and before use, (4) whenever relocated, (5) after major repair, and (6) at 6-month intervals if left in one place. In situations where it is unreasonable to perform the drop test, a qualified/competent person can produce a certification record (e.g., net/installation identification, date of compliance, & signature of qualified/competent person) that the net and net installation has sufficient clearance and impact absorption suitable for use as a fall protection system. The net system shall (6) withstand the force of a 400 pound bag of sand 30" in diameter dropped from the working surface or if not feasible, certify that the net and net installation have sufficient clearance and impact absorption. And the distance from the edge of the working surface to the outer edge of the netting shall be:

Horizontal And Vertical Safety Net Distances From Work Surface	
Net distance below the working surface	Minimum horizontal distance of net from the edge of the working surface
Up to 5 feet	8 feet
More than 5 up to 10 feet	10 feet
More than 10 feet	13 feet

If a safety net is the appropriate fall arrest solution for the fall hazard present, a detailed site safety plan shall be (7) submitted to OEHS for approval prior to installation. This plan shall (8) contain structural analysis, selection of anchor points, type of netting, calculation of net distances, netting strength (including testing certification of the net and it's components), fall protection associated with safe installation and how to safely rescue workers should a fall occur.

5.0 Roles and Responsibilities:

5.1 The Office of Environment, Health, and Safety (OEHS) shall:

- Provide overall technical and administrative management for the program;
- Develop and update this procedure when necessary;
- Identify possible fall hazards through regular inspections. Provide a risk assessment/hazard analysis for any identified fall hazard and make appropriate recommendations for protection/abatement;
- Identify positions requiring fall protection training and ensure those positions are assigned both online and classroom training through TLMS;

- e. Ensure written employee fall protection training certification records are in accordance with OSHA requirements;
- f. Review renovation, construction, and demolition project safety plans to ensure that appropriate fall protection safeguards are selected as per OSHA and American National Standards Institute (ANSI) guidelines;
- g. Review specifications, drawings, and certifications, to determine adequate safety protection (suitable workplace, work height, anchors, wall/floor hole guarding, etc.) is provided and no new hazard is presented.

5.2 The Office of Facilities Support (OFS) and Supervisors shall:

- a. Immediately address any identified fall protection hazards according to the OEHS hazard analysis/risk assessment;
- b. Obtain, install, inspect, test, and maintain fall protection equipment annually and/or as often as necessary;
- c. Submit a written safety plan to OEHS for all in-house elevated work projects above 4 feet. The plan shall detail the work process, the proposed fall protection system, the assigned PPE, and detailed communication and rescue procedures. OEHS may request a worksite walk-through meeting to better understand what's being proposed and to assess any additional hazards.
- d. Coordinate any contractor instructor-led classroom fall protection training through TLMS.
- e. Ensure only trained employees are assigned duties from and/or around elevated work surfaces.
- f. Ensure employee and contractor work practices are in compliance with OSHA regulations, approved industry practices, and with this procedure;
- g. Ensure employees and contractors don and properly utilize appropriate fall protection equipment;
- h. Perform OSHA/ANSI defined competent or qualified person responsibilities as it pertains to installation, inspection, testing/maintenance of fall protection equipment and the systems structural analysis;

5.3 Contracting officers and their technical representatives shall:

- a. Ensure BEP's fall protection requirements are included in applicable statements of work and project specifications; and
- b. Ensure contractors who may work from heights beyond 4 feet submit a site specific safety plan to OEHS through the CO prior to work.

5.4 Employees and contractors shall:

- a. Attend assigned fall protection training and complete all training objectives/requirements;
- b. Only work from heights where adequate fall protection has been installed and only if you've been trained on the fall protection equipment installed;
- c. Immediately inform supervisor and OEHS if exposed to areas without adequate fall protection;

- d. Inspect fall protection equipment prior to each use;
- e. Never use equipment that is frayed or damaged and report findings to supervisor and OEHS;
- f. Only use fall protection equipment as the manufacturer designed;
- g. Report any falls to their supervisor;

6.0 Procedures:

6.1 Annex Building Roof (Except Courtyard Roofs)

- 6.1.1 Workers shall never work alone and shall never access the building roof top without an approved fall protection/rescue safety plan that includes appropriate fall protection equipment in proper working condition.
- 6.1.2 Workers attempting to gain access to the Annex Building rooftop wings shall notify or have their supervisor notify the Police Communication (874-1234) and the Office of Environment, Health, and Safety (OEHS on 874-2463, 874-3591, or 874-2193) prior to access. Signs shall be posted on roof access doors to reflect this procedure.
- 6.1.3 Upon proper notification, the OEHS shall assess the nature of work to be performed and the PPE or other protections required prior to granting access.
- 6.1.4 Only trained employees and contractors who are familiar with BEPs Fall Arrest or Restraint System shall be permitted to access building rooftop access points.
- 6.1.5 The BEP has a 100% tie-off policy when working within 6' of the roof's leading edge. Nylon Class III full body harnesses with attached "D" rings with no signs of wear or damage are the required PPE for that work.
- 6.1.6 There are tie-off cables installed between wings on the North and South sides. Engineered window washers "I" bolts are installed as additional tie-off points around the perimeter of the wings.
- 6.1.7 Although there are no door warning labels, roof access doors are physically locked and secured by Police Communications. Police Communications shall contact OEHS whenever a request is made to open a roof access door.
- 6.1.8 Penthouse roof is a controlled access zone. Approved access shall only occur through 9th Floor access door # 908 which opens outside to Wing 3, North. Upon careful inspection from a qualified/competent person, workers are to use the external stairs from the wing roof top to gain entry to the penthouse roof. **However, since there is no OSHA complaint fall protection presently installed for that area, access to the penthouse roof is prohibited.**
- 6.1.9 9th Floor access doors to rooftop Wings 2, 3, 4, and 5 require authorization, PPE, and special fall protection training. Contact the Police Communications and the OEHS to initiate access.
- 6.1.10 9th Floor access door to rooftop Wing 1 opens to a courtyard with appropriate OSHA compliant permanent guardrails and therefore requires authorization for entry, but shall not require additional PPE and special training (unless the work process requires access beyond the guardrail system to the roof leading edge).

6.2 Main Building Roof

- 6.2.1** Workers shall not work alone on BEP roof tops and shall never access the building roof top without appropriate fall protection equipment in proper working condition.
- 6.2.2** Workers attempting to gain access to the Main Building roof shall notify Polica Communications and the OEHS prior to access. Signs shall be posted on roof access doors to reflect this procedure.
- 6.2.3** Upon proper notification, the OEHS shall assess the hazards involved with the nature of work to be performed and the PPE required prior to granting access.
- 6.2.4** Only trained employees and contractors shall be permitted to access building rooftops and to use the BEP Fall Arrest or Fall Restraint Systems.
- 6.2.4** The BEP has a 100% tie-off policy when working within 6' of the roof's edge. Nylon Class III full body harnesses with attached "D" rings with no signs of wear or damage are the required PPE for that work. Workers are required to use (2) adjustable lanyards with shock absorbing or self retracting nylon lanyards with double locking snap assemblies at each end.
- 6.2.5** Workers shall attach one lanyard to overhead "I" beam bolts before climbing through windows to access and attach the other lanyard to one (1) of two (2) tranfasteners that is on the cable outside, just above the windows. Additional tranfasteners may be obtained upon request from the Electric Shop at 874-2164.
- 6.2.6** The Main Building roof has access through the west side windows of the 5th floor men's room and from room 535-M. The roof can also be accessed by stairs leading to the elevator control room at the 5th Floor Roof Garden.

6.3 Elevated Work Platforms (e.g., scaffolds, hopper/tank platforms, mobile or stationery lifts, etc.)

- 6.3.1** A risk assessment of the working environment shall be carried out by a designated qualified/competent person and controls shall be put in place to reduce the risk of injury or harm when working with all elevated work platforms.
- 6.3.2** Where the risk of injury or harm to persons cannot be controlled, a PPE assessment shall be carried out and relevant PPE issued.
- 6.3.3** Scaffolds shall be furnished, erected, or used whenever persons are engaged in work that cannot be performed safely from the ground.
- 6.3.4** Scaffolds shall be designed and erected to safely support the intended load.
- 6.3.5** Scaffold footing shall be sound, rigid, and capable of carrying the maximum intended load. Barrels, boxes, brick, concrete block, and other unstable objects shall not be used to support scaffolds or planks. Screw jacks may be used for scaffold leveling on a sound rigid surface. However, not more than 12 inches of the screw jack shall extend below the bottom of the

- nut/top of caster. Mudsills shall be provided when erecting scaffold on any surface other than concrete.
- 6.3.6 Anchorage, guying, tying off, or bracing of scaffolds shall be affixed to substantial and structurally sound structures, or the equivalent, using anchor bolts or equivalent.
 - 6.3.7 Guardrails (with complaint top-rails, mid-rails, and toe boards) shall be installed on all open sides and ends of platforms more than 10 feet above the ground or floor or other platform.
 - 6.3.8 Scaffold access shall be provided for every scaffold erected. The maximum spacing between the climbing surfaces of the scaffold frame shall not exceed 16.5" and the length of the climbing surface shall not be less than 10". Scaffold access may also be accomplished by either an internal integrated stair unit or by a hook-on attachment ladder specifically designed for the intended purpose. Ladders shall be positioned so that the scaffold cannot be tipped. Cross braces shall NOT be used as a means of access or degrees.
 - 6.3.9 Scaffold platforms (working surfaces) shall be fully planked or decked. The plank edges shall lay close together so that the platform is tight with no spaces through which tools or fragments of material can fall. Spaces between planks shall NOT be greater than 1" wide. Planks shall lap their end supports at least 12" but not more than 18". Where the ends of the planks form a flush floor, the butt joint shall be at the centerline of a pole and the butt ends shall rest on separate bearers. When two or more scaffolds are used on a building or structure, they shall not be bridged to one another but shall be maintained at an even height with platform butting. Intermediate beams shall be provided where necessary to prevent dislodgement of planks due to deflection and the ends shall be nailed or cleated to prevent dislodgement.
 - 6.3.10 The poles, legs, and uprights of the scaffolds shall be plumb and shall be securely and rigidly braced to prevent swaying and displacement.
 - 6.3.11 Fabricated frame scaffolds including components (i.e., braces, brackets, trusses, screw legs, ladders, etc.) shall be designed to support their own weight and at least 4 times the maximum intended load.
 - 6.3.12 All exposed surfaces shall be free of sharp edges, burrs, nails, or similar safety hazards.
 - 6.3.13 Scaffolds shall not be setup or used in the vicinity of energized electrical lines or conductors unless such are insulated, de-energized (i.e., LO/TO), or are otherwise rendered safe against electrical contact.
 - 6.3.14 Only experienced scaffold installers who are well trained in scaffold construction and fall hazard safety shall be used to erect scaffolds.
 - 6.3.15 Supervisors shall not assign workers tasks they are not trained and competent to perform.
 - 6.3.16 If the hazard assessment or observed work practices determines further training is required such training shall be carried out immediately and/or resources made available prior to being permitted to complete the work task.

7.0 Training for Contractors:

Any contractor exposed to fall hazards at BEP must have a written certification record of fall protection training to the Contracting Officer prior to work. Any contractor who will use

BEP's Mansafe® Fall Protection System on either the Main or Annex Roof must be trained by a licensed installer such as, Unistrut Distribution Company, 1140 W. Thorndale Ave. Itasca, IL 60143, (800) 468-9510. All training certificates must be sent through the CO to OEHS prior to work. CORs must specify this requirement in applicable SOWs.

8.0 Related Documents:

EHS Contractor Requirements 75D-07.0-04

Construction Safety Permits 75D-04.0-08


EHS Review 75D-07.0-01

Environmental Health and Safety Requirements for Construction and Services –Attachment A 75.00 (4.4.6) 2.1A

EHS Records 75D-00.0-12

9.0 Document Revision History

Rev. #	Purpose of Revision	Eff. Date
1	Change document numbers to new scheme	4/15/2014

	Powered Industrial Trucks		Revision: #4
	Document Control Number: 75D-04.0-12		Date: 03/15/17
EMS PROC.	Responsible Organization: Office of Environment, Health and Safety		
	Approved By: Neal Mohlmann	Signature: <SIGNED>	

1.0 Purpose:

The purpose of this procedure is to communicate BEP's requirements for the safe operation of powered industrial trucks (PIT) and for obtaining and wearing PIT licenses.

2.0 Scope:

This procedure applies to all PIT operators at the DCF and the Landover Warehouse.

3.0 Roles and Responsibilities:

3.1 OEHS shall:

- a. Provide training and certify that each operator has received initial training and is evaluated at least once every three years;
- b. Provide a PIT license to operators who successfully complete the training; and
- c. Provide refresher training whenever an operator is assigned to a different type of PIT or when he/she demonstrates a deficiency in the safe operation of the PIT, such as, being involved in an accident or observed operating the PIT in an unsafe manner.

3.2 Supervisors shall:

- a. Identify employees whose job requirements include operating a PIT and provide their names to OEHS for inclusion in the training program;
- b. Monitor employee work practices and ensure safe operation of PITs including the use of seatbelts when so equipped;
- c. Conduct regular inspections and take the following actions for any PITs found defective:
 - i. For battery powered forklifts, pallet jacks and man-lifts, contact the PIT maintenance contractor for pick-up and service;
 - ii. For manual pallet jacks, contact the Machine Shop for service; and

- iii. For electric motorized pallet stackers and man-lifts, contact the Electric Shop for service.

3.3 PIT operators shall:

- a. Wear their PIT license while operating any PIT equipment.
- b. Inspect their PIT before placing it into service;
- c. Operate the PIT in accordance with all safety requirements including:
 - i. Wearing the safety belts if vehicle is so equipped;
 - ii. Obeying the posted speed limit signs;
 - iii. Yielding right of way to pedestrian traffic;
 - iv. Maintaining approximately three vehicle lengths behind a PIT traveling in the same direction;
 - v. Traveling with the load trailing when the load being carried obstructs forward view. The driver must look in the direction of and keep a clear view of the path of travel. Only safely-arranged loads that are within the rated capacity of the PIT shall be handled;
 - vi. Ensuring that loads do not drag on floor;
 - vii. Ensuring that a loaded PIT is not used to push a second load;
 - viii. Sounding the vehicle's horn when passing entrances of doors, elevators, intersections, blind spots, aisles, and other dangerous passing locations where vision is obstructed;
 - ix. Ensuring the audible back-up alarm is activated when the PIT is moving in reverse;
 - x. Ensuring that dock boards and grid plates are properly secured before they are driven over;
 - xi. Approaching and entering elevators slowly with the load end facing forward. Operators must know the capacity of the elevator and make certain that the weight of the PIT and its load do not exceed the capacity. Once on the elevator, the PIT controls shall be neutralized, power shut off, the brakes set and the operator dismounted from the truck. Before exiting the elevator, the operator shall sound the PIT's horn and the audible back-up alarm to alert all pedestrians;
 - xii. Not driving up to anyone standing in front of a bench or other fixed object;
 - xiii. Not allowing employees to stand or pass under the elevated portion of any PIT, whether loaded or empty;

- xiv. Not allowing riders on PITs;
 - xv. Wearing proper head gear (bump caps or hard hats) while operating PITs that do not have an overhead guard;
 - xvi. Lowering load, neutralizing controls and setting brakes while dismounted and within 25 feet or more away from the PIT;
 - xvii. Lowering load, neutralizing controls, shutting off power, removing key and setting brakes while dismounted and 25 feet or more away from the PIT. Wheels shall be blocked if the PIT is parked on an incline;
 - xviii. Blocking rear wheels to prevent the PIT from rolling while unloading the vehicle;
 - xix. Using an overhead guard as protection against falling objects. It should be noted that the guard is not designed to hold a complete load should it fall;
 - xx. Not allowing the load back rest to be used as a pulling or pushing device;
 - xxi. Reporting spills to CPOC in accordance with the Spill Response and Reporting 75D-02.0-02; and
 - xxii. Wear proper foot protection while operating PITs.
 - xxiii. Only operate forklifts that are rated EE in the flammable storage room.
- d. Inspect forklift-mounted fire extinguishers at least monthly and ensure that:
- i. Extinguishers are in their designated location and are secured properly with appropriate brackets;
 - ii. Extinguishers are accessible and visible;
 - iii. Extinguishers are full as determined by hefting and examined for obvious physical damage such as corrosion, leakage, and clogged nozzles;
 - iv. Upon completing the inspection, the back of the inspection tag is initialed and dated.

4.0 Related Documents

Operational Control 75D-00.0-08

Spill Response and Reporting 75D-02.0-02


Loading Dock 75D-04.0-14

Hazardous Material Handling and Storage 75D-04.0-03

Information in printed paper copies of this document and any document referred to herein is guaranteed valid for only 24 hours of the print date
Emergency Action and Fire Prevention Plan 75D-04.0-01

5.0 Document Revision History

Rev. #	Purpose of Revision	Eff. Date
1	One addition to the responsibilities of supervisors, two additions to the responsibilities of operators, add requirement for fire extinguishers, minor grammatical corrections.	3/24/09
2	Add requirement for operators to wear their license badge while operating equipment.	9/17/09
2	Review of document – no revision/change needed	6/7/13
3	Change document numbers to meet new scheme	04/15/14
4	One addition to the responsibilities of operators – section 3.3 c) xxiii	3/15/17

	Confined Space Entry	Revision: #2
	75D-04.0-13	Effective: 6/15/17

1.0 Purpose:

This document serves as the DCF's written permit confined space program as required by the Occupational Safety and Health Administration (OSHA). It is designed to protect employees and contractors from the hazards inherent in certain confined spaces.

2.0 Definition:

A permit-required confined space (permit space) means a confined space that has one or more of the following characteristics: (1) contains or has the potential to contain a hazardous atmosphere; (2) contains a material that has the potential for engulfing an entrant; (3) has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor that slopes downward and tapers to a smaller cross-section; or (4) contains any other recognized serious safety or health hazard.

3.0 Scope:

This procedure covers all authorized employees who must enter confined spaces and/or permit-required confined spaces.

4.0 Roles and Responsibilities:

4.1 The Office of Environment, Health and Safety (OEHS) shall:

- a. Evaluate the workplace to determine if any spaces are permit required confined spaces;
- b. Ensure that signs are posted at the entrances of permit spaces;
- c. Upon request for entry into a confined space, provide a hazard assessment and dictate the conditions for entry to authorized employees and contractors;
- d. Coordinate initial or provide equipment refresher training for BEP employees whose responsibilities include entering confined spaces; and
- e. Review construction/renovation specifications, drawings and safety plans to determine if entry into permit spaces is necessary and to apprise contractors of permit space precautions and procedures.

4.2 Authorized employees who enter, attend, or authorize entry shall:

- a. Comply with all requirements of this document; and

- b. Receive training and retraining, as applicable, per the requirements of 29 CFR 1910.146, Permit-Required Confined Spaces.

4.3 BEP contractors requesting entry to a permit-space shall:

- a. Submit a Site-Specific Safety Plan to the OEHS through the project COR at least ten (10) business days prior to the start of the job;
- b. Provide the necessary equipment, including atmospheric testing equipment, to safely enter and rescue occupants from permit-required confined spaces;
- c. Arrange, where necessary, for emergency rescue of occupants with an on-site rescue team;
- d. Certify that their employees are properly trained in all aspects (e.g., entrants, attendants, and rescue) of permit-space entry; and
- e. Sign-off on all Bureau entry permits. Permit modifications must be approved by the OEHS. Note: The Bureau may elect to adopt a contractor's site-specific permit.

5.0 Procedure:

- 5.1 The OEHS shall be contacted for each permit-required confined space entry. An entry permit shall be established and posted (by the entry supervisor) which includes, at a minimum, all of the information on the BEP DCF Confined Space Entry Permit 75.00 (4.4.6) 18.1 DC Form.
- 5.2 Final entry permit approvals shall be signed by authorized representatives of the OEHS to ensure that all actions required for safe entry have been performed.
- 5.3 The person in charge of the entry shall certify that personnel entering the space are properly trained and certified in all aspects of the Confined Space Program, and have all the necessary equipment (e.g., personal protective, respirators/ventilation, rope/retrieval, communication, etc.) before proceeding with the entry of a confined space. Also, the person in charge shall certify that all the actions required for safe entry have been performed before posting the permit and giving permission to enter the confined space to perform the assigned and approved task.
- 5.4 Before an employee enters the space, the internal atmosphere shall be tested with a calibrated direct-reading instrument, for oxygen content, flammable gases and vapors and potential toxic air contaminants.
- 5.5 During entry, the authorized individual or the person in charge of the entry shall ensure that periodic checks are performed to assure that conditions remain consistent with the terms of the permit. If a hazardous atmosphere is detected within the confined space while any employee is inside the space, all employees must immediately evacuate the confined space.

- 5.6 There must always be at least one attendant present on every permit required confined space entry.
- 5.7 All PRCS entry permits must have an OEHS approved rescue plan either included with or on the permit. Upon evaluation of the spaces and hazards involved, OEHS may require that a rescue service be present at time of work or may determine that the response time and specialized skills of the DC Fire Department is sufficient.
- 5.8 The entry permit shall be removed after completing the task(s) and after all entrants of the confined space have exited by the person in charge of the entry.
- 5.9 Upon completion and return of the permit, the person in charge shall provide a verbal or written report to OEHS that highlights any problems encountered during the entry. If written, the original entry permit shall accompany the report.
- 5.10 OEHS may terminate confined space operations if it is determined that the Safety Plan is not being followed.

6.0 Related Documents:

EHS Review 75D-07.0-01

Hot Work Permits 75D-04.0-04

Emergency Action and Fire Prevention Plan 75D-04.0-01

Energy Control (LO/TO) 75D-04.0-10

7.0 Document Revision History

Rev. #	Purpose of Revision	Eff. Date	Approved By
1	Change document numbers to Match new scheme	4/15/2014	N. Mohlmann
2	Three year review and update.	6/15/2017	N. Mohlmann



Office of Environment, Health, and Safety
Confined Space Entry Permit 75D-04.0-13F
Permit No. _____ Date: _____

Location & Description of Confined Space: _____

Purpose of Entry: _____

Scheduled

Start _____ a.m.
_____ p.m.

Day / Date / Time

Scheduled

Finish _____ a.m.
_____ p.m.

Day / Date / Time

Entry Supervisor: _____

Entrants: _____

Attendants: _____

Job Evaluated by OEHS ☐

(Check items below which are applicable to your confined space permit.)

OEHS Approving Official SIGNATURE _____

Date _____

TYPES OF HAZARDS

- ☐ Oxygen-Deficient Atmosphere
☐ Oxygen-Enriched Atmosphere
☐ Welding/Cutting
☐ Poor Illumination

- ☐ Engulfment
☐ Toxic Atmosphere
☐ Flammable Atmosphere
☐ Slippery surfaces

- ☐ Energized Electrical Equipment
☐ Entrapment
☐ Hazardous Chemical
☐ Mechanical Hazards

List specific hazards: _____

Note: If welding/cutting operations are to be performed, attach Burn Permit to entry form. (HW# _____)

SAFETY PRECAUTIONS

- ☐ Self-Contained Breathing Apparatus
☐ Air-Line Respirator
☐ Chemical Protective Clothing
Type: _____
☐ Fire-Retardant Clothing
☐ Ventilation
☐ Equipment Check (inspected/tested/calibrated)

- ☐ Protective Gloves
Type: _____
☐ Lifelines/Rescue Equipment
☐ Air Purifying Respirators
Type: _____
☐ Lockout/Tagout
☐ Method of Communication _____

- ☐ Barricade Job Area
☐ Signs Posted
☐ Clearances Secured
☐ Lighting
☐ Ground Fault Interrupter
☐ Fire Extinguishers
☐ Rescue Service _____

☐ Remarks _____

ENVIRONMENTAL CONDITIONS

	Time (record PEL every 15 minutes)	a p	a p	a p	a p	a p	a p	a p	a p	a p	a p	a p	a p	a p	a p
Atmosphere	Permissible Exposure Limit														
O2 % V/V (top left)	>19.5% and <23.5% oxygen														
FLM % LEL (top right)	<10% flammable														
CO PPM (bottom left)	<35ppm* Toxic gas 1														
H2S PPM (bottom right)	Toxic gas 2														

*8 hour time weighted average: Employee can work in area 8 hours. (Longer time with appropriate respiratory protection) (If necessary, use backside.)

Employee Conducting Safety Checks SIGNATURE _____

ENTRY AUTHORIZATION

All actions and/or conditions for safe entry have been performed.

Job Entry Supervisor SIGNATURE _____

ENTRY CANCELLATION


Entry has been completed and all entrants have exited the permit space.

Job Entry Supervisor SIGNATURE _____

DATE _____

DATE _____

IN CASE OF EMERGENCY CALL 874-0911

	Radiation and Laser Safety		Revision: #3
	Document Control Number: 75D-05.0-01		Date: 03/21/17
PROC.	Responsible Organization: Office of Environment, Health and Safety		
	Approved By: Neal Mohlmann	Signature: <SIGNED>	

1.0 Purpose:

- 1.1 To define the procedures for controlling operations and maintaining BEP personnel exposure to ionizing radiation as low as reasonably achievable (ALARA).
- 1.2 To define the procedures for ensuring no laser radiation in excess of the maximum permissible exposure (MPE) limit reaches the human eyes or skin.

2.0 Scope:

This policy applies to employees who work with ionizing radiation- producing equipment and Class 3B and Class 4 lasers.

3.0 Definitions:

- 3.1 ALARA - making every reasonable effort to maintain exposures to radiation as far below the dose limits as is practical.
- 3.2 Ionizing Radiation – radiation consisting of particles, X-rays, or gamma rays with sufficient energy to cause ionization in the medium through which it passes.
- 3.3 Dose - means the quantity of ionizing radiation absorbed, per unit of mass, by the body or by any portion of the body.
- 3.4 Laser Classification - based on the laser's potential for causing immediate injury to the eye or skin during use. A qualitative description of laser classes can be found in ANSI Z136.1.
- 3.5 Laser Operator – A person who has received specific training and qualifications to make unescorted access into the restricted area and perform work with lasers.
- 3.6 Non-Ionizing Radiation – ranges from extremely low frequency radiation, through the audible, microwave, and visible portions of the spectrum into the ultraviolet range.
- 3.7 Radiation Worker - A person who has received specific training and qualifications to make unescorted accesses into the restricted area and perform work of a radiological nature.
- 3.8 Restricted Area – Any area access to which is controlled by the employer for purposes of protection of individuals from exposure to radiation.

3.9 Unrestricted Area - Any area access to which is not controlled by the employer for purposes of protection of individuals from exposure to radiation.

4.0 Roles and Responsibilities:

4.1 OEHS shall:

- a. Implement and maintain a program and procedures.
- b. Evaluate the overall effectiveness of the radiation and laser safety program through an annual audit.
- c. Provide or coordinate training.
- d. Assist with reviewing licensing documents.
- e. Provide guidance on laboratory design, shielding and other radiation exposure control methods.
- f. Maintain an inventory of ionizing radiation producing equipment and Class 3B and 4 lasers.
- g. Notify the BEP Health Unit of any new employees to the program and coordinate all necessary medical exams.

4.2 Offices using radiation producing equipment and/or lasers shall:

- a. Perform personnel radiation monitoring on a quarterly basis for radiation workers who will enter a restricted area to work with ionizing radiation producing equipment.
- b. Notify OEHS when a new individual begins work in their laboratory.
- c. Register radiation producing equipment with the appropriate regulatory agency as required.
- d. Provide records of radiation monitoring to OEHS and the BEP Health Unit.
- e. Ensure standard operating procedures are written.
- f. Notify OEHS prior to ordering or acquiring any new radiation producing equipment, lasers and laser systems. Request an EHS review from the OEHS. Once the equipment and proposed location are approved, the equipment may then be installed (see EHS review procedure 75-3-W-08-001 and Large Equipment Boilerplate 75-3-W-08-002).

4.3 BEP Health Unit Shall:

- a. Maintain medical files for those covered by this procedure.
- b. Provide a medical wellness exam initially and following any suspected injury.
- c. Provide or coordinate a baseline eye exam for laser operators prior to employee participation in laser work and following any suspected laser injury per the requirements of ANSI Z136.1.

4.4 Radiation Workers Shall:

- a. Follow the policy procedures described in this document.
- b. Complete all training required relative to this program.

- c. Submit any records from past employment, other than at BEP, regarding radiation monitoring to the BEP Health Unit.
- d. Wear a personal radiation dosimeter while working in a restricted area and make sure to wear the dosimeter assigned to them.
- e. Wear the appropriate radiation dosimeter as applicable. Ensure that the body badge is worn on the trunk of the body at chest level and ring dosimeters are worn on the hand closest to the radiation source.
- f. Store the employee dosimeters in a low radiation area when not in use.
- g. Store the control dosimeter in a radiation free area.
- h. Immediately report any damage that may have occurred to a dosimeter to the personnel dosimetry vendor.
- i. Immediately report any over exposure incident or other concerns related to radiation safety to a supervisor and OEHS.

4.5 Laser Operators Shall:

- a. Follow the policy procedures described in this document.
- b. Complete all training required relative to this program.
- c. Immediately report any laser related incident/injury or other concerns related to laser safety to a supervisor and OEHS.

5.0 Training:

5.1 Employees must be trained and familiar in:

- a. The safety-related work practices that pertain to their respective job assignments. Online training will be provided when the employee is initially assigned to the job and refresher training will be provided annually or when conditions change.
- b. The standard operating procedures for all equipment that the employee is authorized to use.

6.0 Equipment:

6.1 All ionizing radiation equipment must have the following:

- a. Safety device(s) to prevent entry of any portion of an individual's body into the primary X-ray beam path or safety device(s) that causes the beam to shut off if an individual's body crosses the primary X-ray beam path.
- b. Warning devices for X-ray tube "on –off" status and shutter "open-closed" status.
- c. Labeling of all X-ray equipment with a sign or signs bearing the radiation symbol.
- d. Shutters on open-beam configurations.
- e. Radiation source housing.
- f. Generator cabinet.

- a. Warning labels affixed on both the housing and the control panel. Removal of protective housing or system modification can increase a laser's classification. Contact OEHS for review prior to servicing or system modification.
- b. The engineering control measures required for Class 3B and 4 lasers are described in ANSI Z136.1 Safe Use of Lasers. Where specific engineering controls are infeasible they may be replaced with specific administrative and procedural controls and personal protective equipment (PPE) with prior review by OEHS.

7.0 Area Requirements

7.1 Ionizing Radiation Restricted Areas:

- a. Offices using radiation producing equipment shall ensure each area or room shall post a sign bearing the radiation caution symbol and the words "Caution Radiation Area" or words having a similar intent.
- b. Radiation levels must be controlled by sufficient shielding or access control so as to prevent any radiation levels from existing in any surrounding area.
- c. Radiation surveys shall be conducted monthly, after any change or whenever personnel monitoring devices show a significant increase.
- d. Always have a dosimetry badge freely monitoring the environmental radiation exposure in the room of the X-ray equipment. This badge is never to be stored in a radiation free environment.
- e. Any Non-Radiation Worker who requires access to a radiation area for reasons to include, but not limited to, building maintenance and housekeeping must obtain prior approval from the Radiation Safety Officer responsible for the area.
 - i Ionizing radiation equipment will be turned off to allow safe access to Non-Radiation Workers on a schedule that is pre-determined by the Radiation Safety Officer for the area.

7.2 Laser Restricted Areas:

- a. Offices using laser equipment shall ensure that Laser restricted areas must be posted with the appropriate warning signs at the entryway(s) and if necessary, within the laser controlled area.
- b. Ensure the laser lab area is controlled when the laser is in use by means of engineering or administrative controls.

8.0 Personnel Monitoring:

8.1 Individuals working with ionizing radiation producing equipment must limit the amount of working time in a restricted area so as to not exceed the OSHA

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dose limits of Table G-18 of 29 CFR 1910.1096(b)(1) during any period of a calendar quarter.

8.2 Any person who enters a restricted area or who is likely to receive >10% of a permissible limit shall wear appropriate devices for monitoring exposure.

9.0 Dose Limits:

29 CFR 1910.1096(b)(1) Table G-18 (Ionizing Radiation)

	Rems per calendar quarter
Whole body: Head and trunk; active blood-forming organs; lens of eyes; or gonads	1 ¼
Hands and forearms; feet and ankles	18 ¾
Skin of whole body	7 ½

9.1 The dose to an embryo/fetus during the entire pregnancy of a declared pregnant woman, due to occupational exposure of a declared pregnant woman, shall not exceed 0.5 rem (5 mSv).

10.0 Related Documents


10.1 EHS Large Equipment Purchase Boilerplate 75D-07.0-06

10.2 EHS Review 75D-07.0-01

10.3 ANSI 136.1 Safe Use of Lasers

11.0 Document Revision History

Rev. #	Purpose of Revision	Eff. Date
1	Update OEHS and OMT responsibilities, area requirements; remove duplicate definition and punctuation changes. Remove Office of Materials Technology.	10/9/13
2	Changed document number to align with new scheme	04/01/2014
3	Periodic review of procedures, one addition to area requirements for ionizing radiation restricted areas, and one revision to laser restricted area requirements.	03/16/17

	Respiratory Protection		Revision: #1
	Document Control Number: 75D-05.0-02		Date: 4/23/14
PROC.	Responsible Organization: Office of Environment, Health & Safety		
	Approved By: Neal Mohlmann	Signature:	

- 1.0 Purpose:**
To define the respiratory protection program (RPP).
- 2.0 Scope:**
This procedure applies to BEP employees of the DCF.
- 3.0 Roles and Responsibilities:**
- 3.1 The Office of Environment, Health and Safety (OEHS) shall:
- Maintain all respirators, testing equipment and all accessories necessary to properly manage and implement the RPP;
 - Develop and implement written policies and procedures for effective management of the RPP within the BEP;
 - Conduct exposure assessments of suspected areas or operations that may require the use of respiratory protection;
 - Develop respirator cartridge change out schedule(s) when cartridges without end-of-service life indicators are issued;
 - Notify the BEP Health Unit to perform the appropriate tests and screening procedures to determine employee suitability to wear respiratory protection;
 - Select, fit test, and train targeted employees concerning the proper donning procedures, the type of respirator selected, its capabilities and limitations, its effectiveness, and maintenance of employee issued respiratory protection;
 - Maintain accurate program records of employees issued respiratory protection to include type of fit test performed (QLFT or QNFT) and its results, date of respirator issuance, type of respirator issued, respirator manufacturer, type of cartridge/filters issued, anticipated exposure, and the operation that requires the use of respiratory protection;
 - Evaluate the effectiveness of the RPP through an annual audit; and
 - Conduct air monitoring, where necessary, when employees are utilizing respiratory equipment.

3.2 Supervisors and managers shall:

- a. Coordinate with the RPP Manager for guidance when a task or operation may require the use of respiratory protection;
- b. Contact the BEP-HU to schedule employees for respirator suitability tests and screening once the RPP Manager has determined that the use of respiratory protection is required; and
- c. Contact the RPP Manager to schedule training and fit testing once the HU has given the employee medical clearance.

3.3 Employees shall:

- a. Comply with the instructions noted in this document and with the instructions given by the RPP Manager during training and fit testing to include: face piece seal protection, respirator maintenance and storage, end of service indicators (where applicable), and identification of filters, cartridges and canisters;
- b. Read and heed all instructions provided by the manufacturer on the use, maintenance, cleaning and care, and warnings regarding respirator limitations; and,
- c. Contact the RPP Manager if there are any questions or comments concerning the fitting, usage, and maintenance of the issued respirator. The RPP Manager may be reached at (202) 874-2324.

3.4 The BEP Health Unit shall:

- a. Perform the necessary tests and screening to determine employee suitability to wear respiratory protection;
- b. Provide the RPP Manager with information concerning the testing as it pertains to the employees suitability to wear respiratory protection; and
- c. Maintain accurate records of the testing results in the employees' official health record file.

4.0 Voluntary Use Respiratory Protection:

Employees may request respiratory protection even though respiratory protection is not required to complete assigned duties. This is known as voluntary use respiratory protection. Employees who request respiratory protection on a voluntary use basis, must comply with the standards outlined in this document that apply to required use respiratory protection. Those employees issued voluntary use respiratory will be provided a copy of Appendix D to OSHA 29 CFR 1910.134.

4.1 N95 – N99 Respirators (Filtering Face Piece Respirators):

- a. Employees who request respiratory protection for personal comfort on a voluntary basis and are not required to wear tight fitting respiratory protection will be issued or instructed to purchase N95 –N99 respirators via government issued credit card. These types of respirators are certified by the National Institutes for Occupational Safety and Health (NIOSH) and are designed to remove 95-99% of particles 0.3 microns (and larger) in diameter when worn properly. Such respirators are often referred to as “filtering face piece” respirators (dust masks).

4.2 **Training:** The OEHS RPP Manager shall train voluntary users on the proper use and limitations of filtering face pieces.

4.3 Voluntary users who choose to wear filtering face pieces shall utilize filtering face pieces in a manner consistent with training and in accordance with the manufacturer's recommendations.

5.0 Respirator Acquisition:

The OEHS Respiratory Protection Program (RPP) Manager will issue the appropriate respiratory protection to employees in order to complete the required work task(s).

5.1 Once the RPP Manager has determined that the use of respiratory protection is required, employees may obtain a respirator using the following procedures:

- a. Coordinate with the RPP Manager for guidance when a task or operation may require the use of respiratory protection;
- b. The supervisor/foreman must contact the BEP-HU to schedule the employee(s) for respirator suitability tests and screening;
- c. Contact the RPP Manager to schedule training and fit testing once the HU has cleared the employee to wear a respirator;
- d. Comply with the instructions given by the RPP Manager during training;
- e. Contact the RPP Manager if there are any questions or comments concerning the fitting, usage, and maintenance of the issued respirator. The RPP Manager may be reached at 874-2324.

6.0 Training:

All BEP personnel tasked with utilizing respiratory protection will receive comprehensive training upon initially receiving respiratory protection and annually, thereafter. The training will focus on proper donning procedures, the type of respirator selected, its capabilities and limitations, its effectiveness, and maintenance of employee issued respiratory protection.


7.0 Related Documents:

7.1 Construction Safety Permits 75D-04.0-08

7.2 Personal Protective Equipment 75D-04.0-06

8.0 Document Revision History

Rev. #	Purpose of Revision	Eff. Date
1	Changed doc numbers	4/23/14

	HAZARD COMMUNICATION PROGRAM		Revision: #3
	Document Control Number: 75D-05.0-03		04/12/2014
PROC.	Responsible Organization: Office of Environment, Health and Safety		
	Approved By: Neal Mohlmann	Signature:	

1.0 Purpose:

This document is DCF's written Hazard Communication (HAZCOM) Program and meets the requirements of 29 CFR 1910.1200. Its purpose is to ensure that employees are provided with information and procedures that explain which hazardous chemicals are present in the workplace, why they are hazardous, and how to work with them safely.

2.0 Scope:

This document applies to all DCF employees and contractors.

3.0 Roles and Responsibilities:

3.1 The Office of Environment, Health and Safety (OEHS) shall:

- a. Identify and record hazardous chemicals by work areas through the EHS Review 75D-07.0-01 and work with supervisors to ensure that the electronic SDS system is updated as needed;
- b. Maintain the BEP's master MSDS inventory via electronic MSDS system;
- c. Review SDSs submitted to OEHS and provide approval/disapproval to the submitter in writing;
- d. Develop SDSs for each BEP-manufactured hazardous chemical/mixture using hazard determination procedures as outlined in the Hazard Communication Standard; and
- e. Establish contingency plans for acquiring SDSs not found on the electronic SDS system or should access to the electronic SDS system become unavailable in an emergency.

3.2 Managers and Supervisors shall:

- a. Ensure that SDSs for each hazardous chemical in their work area **are** listed and located in the electronic SDS system and that computer workstations are readily available and accessible to employees for MSDS acquisition;

- b. Periodically access the electronic SDS system to verify that SDSs listed in their area(s) of responsibility is accurate. If inaccuracies are discovered, contact the OEHS HAZCOM Program Manager.
- c. Ensure that all hazardous chemical containers (including secondary containers) are appropriate labeled with the following information from the SDS:
 - i. Identity of the hazardous chemical(s);
 - ii. Appropriate hazard warnings;
- d. Notify the OEHS of any non-routine hazardous tasks involving hazardous chemicals;
- e. Ensure that any expired chemicals are removed from the work area and disposed of in accordance with local and federal regulations. Contact the Environmental Management Division (EMD) at 4-2107 for disposal guidance; and
- f. Ensure employees complete assigned HAZCOM training.

3.3 All employees shall:

- a. Read the SDSs and labels to become familiar with the safety precautions, chemical and physical properties, and potential health hazards of the chemicals which they intend to handle prior to handling the chemicals;
- b. Exercise all necessary precautions in the safe use of hazardous chemicals, including wearing personal protective equipment (PPE) as specified on the SDS or recommended by the OEHS;
- c. Notify their supervisors of any apparent non-compliance with the requirements of this program such as, missing SDSs, improperly labeled containers of hazardous chemicals, chemicals not listed on the hazardous chemical inventory for the work area, etc;
- d. Participate in all hazard communication training sessions for which they are scheduled; and
- e. Report all working conditions which may cause substantial exposure of any person to hazardous chemicals to their supervisors or the OEHS.

3.4 The Office of Facilities Support shall:

- a. Ensure that all piping systems transporting flammable, combustible, toxic or corrosive chemicals (as defined in 1910.1200, Appendix A) are labeled in accordance with a standardized hazardous materials labeling system; and
- b. Submit SDSs to OEHS for all chemicals necessary for contracted construction activities.

3.5 CORs shall ensure that:

- a. DCF contractors submit SDSs for hazardous chemicals to the OEHS for approval prior to entry in BEP facilities;
- b. Contractors, while working at BEP facilities, have access to the SDSs of the chemicals used or stored in the areas where they will perform their stated contractual duties and vice versa;
- c. Contractors maintain SDSs on site for all hazardous chemicals they use at their work location;
- d. The containers of any hazardous chemicals brought into the DCF by contractors are labeled in accordance with the provisions of the OSHA HAZCOM Standard;
- e. All information regarding safety and health issues is conveyed to the employees who work in areas where the hazardous chemicals will be used or stored;
- f. All hazardous chemical containers brought into the DCF by contractors that are not critical to future performance are removed from the premises and properly disposed of in accordance with local and federal regulations once the contractor has completed the contracted task(s); and
- g. Ensure that any hazardous chemical(s) brought into the DCF by contractors that are to permanently remain in the BEP post-contract are submitted to the OEHS for inclusion into the electronic SDS system.

3.6 The Office of Acquisition shall:

- a. Ensure that all processed purchase orders, contractual agreements, and documents regarding the procurement and use of chemicals include the following statements:
 - i. Safety Data Sheets (SDSs). The contractor/supplier shall comply with the regulations set forth in the OSHA Hazard Communication Standard, including the preparation of MSDSs. MSDSs which do not meet the provisions of this Standard will not be approved. Hazardous chemicals without OEHS-approved MSDSs will not be accepted for use on BEP premises; and
 - ii. Hazard Warning Labels. Each hazardous chemical container shall be appropriately labeled as defined in the OSHA HAZCOM Standard.
- b. Ensure that purchasing agents do not purchase a new chemical without the notification of approval through the EHS Review 75D-07.0-01.

3.7 The Office of Materials Technology (OMT) shall:

- a. Provide formulation data to OEHS for the development of SDSs for any new or modified BEP-manufactured product such as, inks, wiper roller plastisol, etc. Specifically, the Office of Materials Technology shall submit the physical characteristics of the product including boiling point, vapor pressure, vapor density, specific gravity, molecular weight, evaporation rate, solubility in water, appearance, odor, percent volatile by volume, flash point, and method used to determine flash point and upper and lower flammability limits (see Section 4.2 below); and
- b. Notify OEHS if chemicals approved for trial use are accepted for sustained or permanent use in the BEP.

3.8 The BEP Health Unit shall:

- a. Access the electronic SDS inventory as needed. This information shall be used by Health Unit employees in providing patient care; and
- b. Maintain lists of ingredients, as provided by BEP officials, for hazardous chemicals whose manufacturers claim a trade secret or proprietary information exclusion; and yield such information to health care providers on an as-needed basis (i.e., employee injury or illness).

4.0 Procedures:

4.1 Chemical Acquisition –

All purchasing agents; COs, CORs, and government purchase card holders shall adhere to the EHS Review 75D-07.0-01 and/or the Credit Card Purchases 75D-07.02 to ensure proper compliance with EPA and OSHA regulations. Only chemicals previously approved by OEHS shall be allowed into the BEP.

4.2 For BEP-Manufactured Chemicals:

- a. For those chemicals manufactured in BEP, the OEHS must prepare an SDS prior to trials and scaled-up production. The following information is required along with the request for preparation of an SDS:
 - MSDs of all ingredients, the percent by weight of each ingredient, and any relevant data, provided by the component manufacturers, such as results of toxicity-tests, etc;
 - Physical and chemical characteristics listed in 3.7(a);
 - Name and telephone number of the coordinating Bureau party;
 - Planned date(s) of manufacture;
 - Location of material manufacture;
 - Quantity to be manufactured;
 - Brief description of the manufacturing process;
 - Location of chemical testing;
 - Quantity of the chemical to be tested; and

- Brief description of the test plan.
- b. Upon completion of testing trials and/or scaled-up production, the following information must be submitted to the OEHS:
- Any reports of adverse health effects which employees experienced during the test period; and
 - Whether or not continued use of the chemical is intended; and if so, all location(s) of anticipated use.

5.0 Chemical Inventory and Safety Data Sheet (SDS) Access:

The OEHS has procured an electronic MSDS management system which lists MSDSs of all approved chemicals utilized throughout the BEP. The listing and the MSDSs are updated as needed to ensure accuracy.

- a. Procedures. The electronic chemical inventory and corresponding MSDSs may be accessed and printed through In\$ite by completing the following:
- i. Once on the In\$ite web page, click on the "BEP Applications" link;
 - ii. Click on the "Electronic SDS System" link to access the SDS log-in page;
- Click "OK" to launch application; and
 - Enter search criteria into the available fields and click search.

NOTE: There are several ways to search for a chemical in the electronic SDS system (i.e. chemical name, section/area, manufacturer, etc.). However, if a chemical is listed anywhere in the electronic SDS database, it is approved for use in the BEP.

- b. Should an MSDS be unavailable on the electronic SDS System, employees should access In\$ite and utilize the internet (i.e., Google.com) to locate and acquire SDS information. If an employee or contractor does not have access to the internet, contact the Supervisor or COR for assistance in locating the SDS.
- c. Should access to In\$ite and the electronic SDS system be unavailable, SDS sheets will still be accessible through the OEHS. As a contingency, the electronic SDS system is backed-up and updated monthly onto a hard disk located in the OEHS. These files will be accessed via a stand alone computer. This hard disk can be accessed on all work shifts. Should this contingency be required, contact the OEHS HAZCOM Program Manager or the Safety & Health Division Manager during the dayshift hours. The OEHS Safety Contractor should be contact during the off shift hours.

6.0 Training:

- 6.1 Employees who work with, or are potentially exposed to hazardous chemicals during the normal course of their work or in a foreseeable emergency, shall receive information and training at the time of the employees' initial assignment and whenever a new hazard is

Information in printed paper copies of this document and any document referred to herein is guaranteed valid for only 24 hours of the print date introduced into their work area. Additionally, refresher training shall be provided using the on-line training module on an annual basis. This training shall comply with the OSHA HAZCOM standard by providing employees with the following information:

- a. The requirements of the OSHA HAZCOM standard and employee rights and responsibilities;
- b. How to read and understand an SDS;
- c. The specific operations in the employees' work areas which involve the use of hazardous chemicals;
- d. The location and availability of the written BEP HAZCOM Program, the hazardous chemical inventories and the SDSs of the hazardous chemicals in the work area;
- e. Methods and observations that may be used to detect the presence or release of a hazardous chemical in the work area;
- f. The physical and health hazards of the chemicals in the work area;
- g. The measures employees can take to protect themselves from these hazards such as appropriate work practices, emergency procedures, and use of personal protective equipment; and
- h. The elements of the BEP HAZCOM Program, including an explanation of the labeling system and the SDS, and how employees can obtain and use the appropriate hazard information.


7.0 Related Documents:

EHS Review Procedure 75D-07.0-01

Credit Card Purchases 75D-07.0-02

8.0 Document Revision History:

Rev. #	Purpose of Revision	Eff. Date
1	Additional Manager and Supervisor responsibilities; grammatical corrections; added language to: give employees an option of using the internet to locate MSDSs if not found in the electronic MSDS system; inform employees of the contingency plan should access to InSite and electronic MSDS system become severed; and to OEHS responsibilities to create contingency plans to acquire MSDSs when electronic MSDS system is deficient or unavailable.	3/8/11
2	Removed Section 3.2(c)(iii) requiring manufacturer and address on secondary containers.	3/25/13
3	Changed document numbers; changed MSDS to SDS	04/21/14

	Hearing Conservation Program		Revision: #2
	Document Control Number: 75D-05.0-04		Date: 4/23/14
PROC.	Responsible Organization: Office of Environment, Health and Safety		
	Approved By: Neal Mohlmann	Signature:	

1.0 Purpose:

The purpose of this document is to ensure that the DCF has established an effective hearing conservation program (HCP) that meets or exceeds the current OSHA occupational noise exposure regulation, 29 CFR 1910.95.

2.0 Scope:

This procedure applies to all DCF components. Employees that are exposed to noise at or above the OSHA Action Level of 85 decibels as an eight hour time weighted average (or equivalently a dose of 50% of the permissible exposure level) are included in the BEP HCP.

3.0 Administration of the Program:

3.1 OEHS is responsible for overall development and implementation of the DCF HCP and shall:

- a. Conduct noise surveys to determine high noise areas. Such surveys shall be repeated whenever a change in production, process, equipment, or controls potentially changes noise exposures;
- b. Identify occupations whose noise exposures are at or above the OSHA Action Level or potentially at or above the Action Level;
- c. Inform respective employees, managers, and the Health Unit (HU) of the results of noise surveys and employee exposure monitoring;
- d. Designate hearing protection areas and ensure that warning signs are posted;
- e. Coordinate with the Office of Facilities Support to design and install suitable engineering controls for reducing or eliminating noise hazards, where feasible;
- f. Coordinate with the HU to ensure that all required audiometric tests are conducted in accordance with the OSHA Occupational Noise Exposure Standard;
- g. Ensure that required hearing protectors are available and appropriately selected to attenuate employee noise exposure to below the OSHA Action Level;

- h. Maintain records of noise measurements and survey results for the duration of a worker's employment plus two years;
- i. Conduct or facilitate annual training for employees who are included in this program;
- j. Ensure that noise monitoring equipment is calibrated and maintained in good working order; and
- k. Ensure that background sound levels in BEP's audiometric test booth are documented annually in accordance with OSHA requirements.

3.2 The Health Unit shall:

- a. Administer baseline, annual, and exit audiometric evaluations for employees enrolled in the HCP;
- b. Conduct initial fitting of hearing protection;
- c. Explain the results of audiometric testing to the employee and for employees who have a standard threshold shift, review their use of hearing protection and re-fit if necessary;
- d. Maintain records of employees' audiometric tests and otological histories for at least the duration of the affected employees' employment, plus five years. Records shall include the names of employees, their job titles, the evaluation date, the technician's name and evidence of competence, and the date of all types of calibrations of the audiometer and test booth ambient noise levels;
- e. Ensure that audiometric evaluations are performed by a licensed or certified audiologist, otolaryngologist, or other physician, or by a technician who is certified by the Council of Accreditation in Occupational Hearing Conservation; and
- f. Schedule audiometric evaluations with supervisors/managers for employees enrolled in the HCP.

3.3 The Office of Human Resources shall:

- a. Coordinate transfers of medical records between the WCF and DCF, or to the successor agency, as applicable. Medical record transfers must be coordinated through the HU COTR at the respective facility; and
- b. Notify the OEHS and HU COR when employees are hired, transferred, or otherwise leave BEP, including retirements, resignations, and other personnel actions.

3.4 Managers and supervisors shall:

- a. Notify OEHS of any suspected high noise levels in their area or workplaces;

- b. Ensure that administrative time is provided for employees to (a) participate in audiometric testing when scheduled by the HU, (b) complete annual hearing conservation training, and (c) participate in audiometric or physical examinations conducted off BEP premises when referred by the Health Unit;
- c. Ensure that employees in high noise areas wear hearing protection, and take appropriate enforcement actions with regard to employees who fail to report for audiometric tests or who do not wear hearing protectors properly;
- d. Notify OEHS and the HU whenever any of his/her employees are assigned in or out of identified high noise areas so that appropriate audiometric testing can be accomplished;
- e. Cooperate with OEHS, and the HU by encouraging employees to participate in noise monitoring activities; and
- f. Refer any employee who reports hearing problems or difficulties in using hearing protectors to OEHS for further consultation.

3.5 Employees who work in high noise areas shall:

- a. Wear required hearing protectors;
- b. Report to the HU for scheduled appointments promptly;
- c. Report any hearing problems or difficulties in using hearing protective devices to their supervisors and the HU;
- d. Maintain their hearing protectors in a sanitary manner;
- e. Assist Management in obtaining accurate noise exposure results through participation in personal monitoring; and
- f. Complete annual training.

3.6 The Office of Engineering shall:

- a. Submit all statements of work and specifications for new or modified machines and equipment to OEHS for review of noise emission data;
- b. Specify maximum noise levels of less than 85 dBA (at typical operator positions) in all new equipment specifications; and
- c. Ensure that when such equipment meets or exceeds 85 dBA at typical operator positions, that the vendor installs appropriate engineering controls in the workplace to meet this level. Such changes may include but are not limited to the installation of sound barriers or noise absorbing materials.

4.0 Related Documents:


Master Records and Forms List 75D-00.0-12

Competency, Training, and Awareness 75D-00.0-04

EHS Training Matrix 75.00 (4.4.2) 1 DC Form

5.0 Document Revision History

Rev. #	Purpose of Revision	Eff. Date
1	Periodic Review – no changes	3/8/11
2	Change doc numbers	4/23/14

	Lead Based Paint Management and Abatement		Revision: #2
	Document Control Number: 75D-05.0-05		Date: 4/23/14
PROC.	Responsible Organization: Office of Environment, Health and Safety		
	Approved By: Neal Mohlmann	Signature:	

1.0 Purpose:

This procedure outlines the roles, responsibilities and requirements for DCF employees to conduct LBP abatement.

2.0 Scope:

This policy applies only to non-contracted (in-house) abatement at the DCF. The requirements for contracted lead based paint abatement are outlined in specific construction specifications and service agreement statements of work. Only BEP employees who are certified are permitted to perform LBP abatement activities.

3.0 Roles and Responsibilities:

3.1 The OEHS shall:

- a. Design and provide technical expertise and supervision of LBP abatement activities and procedures. This includes the drafting of a written, project specific LBP abatement plan that provides detailed procedures of all aspects of the abatement including the use of PPE. The plan is to be issued to the Paint Shop foreman prior to the start of abatement activities.
- b. Ensure that LBP assessments are conducted for all in-house renovation, demolition and construction operations/projects in the BEP by reviewing all in-house drawings, M&R requests, and proposed demolition, renovation, construction, or modification actions to determine the impact on LBP;
- c. Ensure waste from projects involving LBP abatement are disposed of in accordance with Management of Hazardous Waste 75D-03.0-04
- d. Collect samples from painted surfaces where suspected LBP will be disturbed or where suspected LBP is not intact (i.e., peeling, flaking, dusting, etc.) and submit them to an accredited laboratory for analysis;
- e. Perform exposure assessment monitoring for employees involved in lead abatement and/or demolition of painted surfaces covered in LBP.

- f. Ensure that employees are informed of exposure monitoring analysis results within five days of receipt and maintain accurate records of bulk LBP analysis results and air monitoring results;
- g. Serve as the Bureau's EPA-accredited Project Designer and Abatement Supervisor for lead issues and ensure that all aspects of LBP identification, abatement, and disposal comply with current federal, state, and local regulations and standards of practice; and
- h. Provide annual respiratory training and fit testing and provide supervisory personnel with Appendix D of the OSHA Respiratory Standard, 29 CFR 1910.134, as required by OSHA;
- i. Ensure that BEP is stocked with an appropriate supply of respirators and cartridges that will provide adequate protection from lead and lead dust.
- j. Notify supervisors of abatement personnel when employees need to complete the annual physical exams.

3.2 The Office of Facilities Support (OFS) shall:

- a. For all work that involves penetrating or otherwise disturbing painted surfaces request a Construction Permit through the Construction Safety Permit 75D-04.0-08.
- b. Ensure that Supervisors and employees shall report damaged, peeling, flaking, or dusting paint to the LBP Program Manager and shall never disturb suspected LBP.
- c. Conduct LBP abatements for in-house, small scale demolition/renovation projects.
- d. Ensure that those employees designated as LBP abators receive the required training to be certified to conduct LBP abatement activities in the District of Columbia;
- e. Forward copies of employees' records, to the OEHS, indicating they have been trained in compliance with the D.C. LBP certification program for lead workers. Certification training must be completed every three years. Employees will not be allowed to perform abatements without proof of certification.
- f. Ensure that all other employees whose job duties require close contact with LBP complete the on-line lead awareness training;

4.0 Procedure:

4.1 Respiratory Protection for In-House Lead Based Paint Abatement Personnel –

- a. All employees tasked with performing LBP abatement operations are required to wear respiratory protection. As a result, these employees must be enrolled into the Respiratory Protection Program (RPP) and abide by the provisions set forth in the OSHA Respiratory Protection Standard, 29 CFR 1910.134 (b) through (d) and (f) through (m). Employees must first receive medical clearance from the BEP Health Unit.

4.2 Supervisors of lead abatement personnel shall:

- a. Ensure that medical clearance screening of all lead abatement personnel is coordinated and scheduled with the BEP Health Unit.
- b. Ensure that all lead abatement personnel attend mandatory annual in-house training sessions when notified by the facility RPP Manager.

4.3 Drilling Into Painted Walls:

- a. When changing the drill HEPA filter and/or emptying the collection canister, the operation **MUST** be performed in the CP&M Shop paint booth by a certified lead abatement worker.


Guidance: Air monitoring has indicated that HEPA equipped drills (e.g. Hilti -heavy duty and the Nilfisk - light duty) effectively remove lead dust before it becomes airborne. Therefore, any drilling into painted walls, regardless of lead content, is to be performed using one of the HEPA equipped drills. Respiratory protection is NOT required for these operations when using the HEPA equipped drills. Additionally, the use of the HEPA equipped drills eliminates the need to collect a paint sample every time a hole is to be drilled into a painted wall, as mandated by the EHS Construction Permit policy.

5.0 Related Documents:

EHS Review Procedure 75D-07.0-01
EHS Contractor Requirements 75D-07.0-04
Construction Safety Permit 75D-04.0-08
Personal Protective Equipment 75D-04.0-06
Respiratory Protection 75D-05.0-02

6.0 Document Revision History:

Rev. #	Purpose of Revision	Eff. Date
1	Added requirements and guidance for drilling through painted walls (sec. 4.3), added Contractor Boilerplate procedure and removed Contract Management procedure from 5.0 Related Documents.	5/12/11
2	Changed Doc numbers	4/23/14

	Asbestos Control Program		Initial
	Document Control Number: 75D-05.0-06		Date: 11/06/2015
PROC.	Responsible Organization: Office of Environment, Health & Safety		
	Approved By: N. Mohlmann		Signature: <on file>

1.0 Purpose:

It is the policy of the BEP to establish a program that meets or exceeds the requirements of OSHA 29 CFR 1910.1001 and 29 CFR 1926.1101, EPA 40 CFR 763 and 40 CFR 61, Subpart M (NESHAPS) and DCMR Title 20-800 to control asbestos emissions generated during abatement activities. The BEP's Asbestos Control Program is a program designed to control, mitigate and/or eliminate occupational exposure to airborne and friable asbestos containing material (ACM). These exposures are controlled through established procedures that will be implemented prior to and during all ACM abatements. Only licensed and certified contract staff are permitted to perform ACM abatement activities.

2.0 Applies to the Washington, D.C. facility

2.0 Roles and Responsibilities:

The Office of Environment, Health & Safety (OEHS):

- a. Has overall administrative and technical responsibility for the implementation of the BEP's Asbestos Control Program;
- b. Maintains ACM waste manifest records;
- c. Develops and implements policies and procedures for the safe and effective management of ACM within the BEP;
- d. Designs and provides technical expertise and supervision of ACM abatement activities and procedures. This includes the approval of the contractor generated abatement plan;
- e. Ensures that employees are informed of upcoming ACM abatement operations and maintains accurate records of bulk ACM analysis results, air monitoring results and abatement air reports;
- f. Reviews all in-house drawings, construction permits, proposed demolition, renovation, construction, or modification actions to determine the impact on ACM;

- g. Ensures that ACM assessments are conducted for all in-house renovation, demolition and construction operations/projects in the BEP;
- h. Collects samples where suspected ACM will be disturbed or where suspected ACM is not intact (i.e. damaged, friable, airborne, etc.) and submits them to an accredited laboratory for analysis;
- i. Serves as the Bureau's EPA-accredited AHERA Project Designer for ACM operations and ensures that all aspects of ACM identification, abatement, and disposal comply with current federal, state, and local regulations and standards of practice;
- j. Ensures that the abatement contractor acquires the required permits to perform ACM abatement activities in the District of Columbia;
- k. Maintains copies of employee records indicating compliance with the District of Columbia licensing and certification program for asbestos abatement workers; and
- l. Updates program and SOP as-needed.

The Office of Facilities Support (OFS) COR's shall:

- a. Forwards all specifications and drawings for proposed in-house demolition, renovation, construction, or any other work that may involve suspected or known ACM to the Asbestos Control Program Manager for review at least 14 days in advance of work;
- b. Forwards all construction permits and Maximo serviceto the Asbestos Control Program Manager 14 days in advance of anticipated work to allow time for an assessment and for abatement, if necessary;

The BEP Health Unit shall:

- a. Evaluate employees who reportedly come into contact with ACM;
- b. Maintain accurate records of employee medical surveillance monitoring in the employees' official health record file.

Supervisors and employees shall:

- a. Report any damaged, confirmed or suspected (i.e. loose, friable or airborne) ACM to the OEHS Asbestos Control Program Manager. Never disturb confirmed/suspected ACM.
- b. Ensure that all employees whose job duties (i.e. work above ceiling tiles, repairing torn or damaged pipe insulation, repairing damaged or leaking pipes, removing or replacing carpet tiles, maintenance/cleaning activities, etc.) may require close contact with ACM complete the on-line asbestos awareness training via TLMS;
- c. Ensure that all employees whose job duties may require close contact with ACM are made aware of these EMS program procedures and associated requirements.


3.0 RECORDKEEPING.

a. The Center for Excellence shall maintain the following records:

1. Training records for each employee required to complete the on-line asbestos awareness training module.

4.0 Document Revision History

Rev. #	Purpose of Revision	Eff. Date

	Medical Waste	Revision: #2
	75D-06.0-01	Effective: 6/15/17

1.0 Purpose:

The purpose of this policy and procedure is to outline the handling, storage and disposal of medical wastes generated in the Health Unit at the D.C. Facility (DCF).

2.0 Scope:

This policy and procedure applies to all Health Unit staff handling medical waste at DCF.

3.0 Roles and Responsibilities:

3.1 The Health Unit is responsible for:

- a. Overseeing the proper collection and disposal of medical wastes generated in the unit; and
- b. Providing appropriate medical waste receptacles that are leak proof and puncture resistant.

4.0 Definitions:

- 4.1 Medical waste is a solid material intended for disposal which is produced as a direct result of patient care. It includes soiled dressings, bandages, disposable catheters, swabs, used disposable gowns, gloves, microbiology laboratory waste, blood and blood products, pathological wastes, and waste containing sharps and contaminated sharp objects.
- 4.2 Regulated medical waste is defined by OSHA (29 CFR 1910.1030) as "blood or other contaminated materials that would release potentially infectious matter if handled, contaminated sharps, and pathological and microbiological wastes containing blood or other potentially infectious materials."

5.0 References

- 5.1 Blood borne Pathogens 75D-06.0-04

6.0 Enclosures

n/a


7.0 Procedure:

Receptacles for sharps, sharp contaminated objects, blood and blood products are provided for each treatment area.

- 7.1 Receptacles for sharp objects are inspected daily to check volume of contents.
- 7.2 When 2/3 full, receptacles for sharps are sealed.
- 7.3 Sealed receptacles are packed, labeled and marked appropriately.

- 7.4 Sealed receptacles are stored in a specific designated area where traffic flow is limited, temperature is controlled at 72 degrees F; where the floor has a non-porous and seamless surface and the walls covered with non-porous, washable materials.
- 7.5 Sealed receptacles are picked up on a regular basis by a third party company.
- 7.6 A third party company is contracted for pick-up of regulated medical waste.
 - a. The medical waste contractor provides BEP the following documents:
 - i. Hazardous Material Shipping Document

Rev. #	Purpose of Revision	Eff. Date	Approved By:
1	Change document numbering to new scheme	4/15/14	N. Mohlmann
2	Added hazardous material shipping documentation	8/19/14	N. Mohlmann
3	Updated header.	6/15/17	N. Mohlmann

	Injury and Illness Reporting	Revision: #4
	75D-06.0-02	Effective: 09/07/2017

1.0 Purpose:

To ensure prompt notification of appropriate personnel and immediate contact with the injured employee.

2.0 Scope: DCF

3.0 Procedure:

Applies to all injured employees, supervisors, managers, Health Unit (HU) staff, and Office of Environment Health and Safety (OEHS).

3.1 Injured Employee:

- a. If you are injured at work, immediately report the injury and pertinent circumstances to your immediate supervisor. Supervisor notification may be postponed if the nature of the injury requires emergency care.
- b. If you require medical treatment, report to the HU. Inform the HU staff of the nature of your injury. Your supervisor is responsible for assisting you in this process, as necessary. At the HU, you will be offered medical care, but you may choose to be seen by your private physician.
- c. Follow the advice of the health care provider on how to care for your injury. The health care provider will determine when you are able to return to work and your physical limitations.
- d. If you received physical limitations, then you may be offered an alternative work assignment.
- e. If you are referred to your private physician by the HU or if you choose to be seen by your private physician, inform your supervisor immediately after the appointment regarding your disposition.
- f. Provide any medical evidence that supports your claim of disability to the HU, workers compensation specialist (if filing a claim), and your supervisor. Your supervisor must be kept informed of your physical limitations, diagnosis, and ability to return to work.
- g. If you have questions concerning workers' compensation benefits, contact the workers compensation specialist.

3.2 Supervisor:

- a. Once notified of an employee injury or illness, ensure that appropriate care is provided for the employee. Based on the needs of the employee, accompany them to the HU or call the HU to immediately respond to the scene.
- b. If the incident is major, then accompany the employee to the HU. **NOTE:** If you have any doubt as to whether the incident is major, then presume the incident is major and comply with all of the following steps, and help your employee.
- c. After ensuring that the employee receives medical care, ask the employee what happened, identify the causal factors of the incident, and gather other facts and circumstances of the incident.
- d. After the disposition of the employee has been determined, follow the instructions by the health care provider, as follows:
 - i. If your employee can return to full duty, ensure they return to the work area.
 - ii. If the employee is unable able to return to full duty, contact the workers compensation specialist for assistance in identifying an alternative work assignment.
- e. If your employee is seen by his or her private physician, request medical documentation on his/her disposition. **NOTE:** Supervisors have the right to information related to an employee's disposition as it relates to their ability to return to work.
- f. If your employee cannot return to full duty, maintain routine contact to obtain updates about diagnosis and physical limitations. Provide the HU and the workers compensation specialist with updated information.
- g. After your employee is evaluated and his/her disposition is determined, complete the EHS Incident Report (BEP Form 1945). Provide the completed form to the Safety Division (SD) representative who responds to the incident, and work together to identify causal factors and prevent recurrences. The completed EHS Incident Report should be submitted to OEHS within 24 hours after the incident.
 - i. Based on the results of the investigation and recommendations by OEHS, perform any injury prevention or corrective actions under within the area of your responsibility, including submitting a service request.

3.3 Health Unit (HU):

- a. When an injured employee arrives at the HU, attend to them immediately.
- b. For major cases, immediately notify the OEHS (Occupational Health Manager, Safety Manager, Chief, or on-duty safety specialist).

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- c. In cases where an injured employee refuses treatment, document the refusal in the employee's record with any other pertinent information regarding the incident.
- d. If an injured employee chooses to be seen by their private physician rather than the Bureau's HU, this should also be noted in the file.
- e. For emergencies, the HU will call the Police Communication Center (PCC) for an ambulance to transport the injured employee to the hospital. For non-emergencies, employees are transported to the hospital via taxi.

3.4 Office of Environment Health and Safety/Safety Division:

- a. Upon notification of an incident from the HU a representative from the OEHS/Safety Division staff will determine if an investigation is needed.
- b. If the incident is major, a representative from OEHS will immediately report to the HU and/or the scene of the incident, as appropriate, to identify and analyze causal factors.
- c. Assist supervisor in a collaborative manner to complete documentation, identify causal factors, and ensure recurrences are avoided.
- d. Document the results of the causal factor analysis and root cause determination(s).

3.5 Office of Environment Health and Safety/Occupational Health Division:

In case of a work-related injury or illness, the injured employee has the right to file a claim for workers' compensation benefits. In cases where a workers claim is filed, the workers' compensation specialist:

- a. Provide information and official forms from the Department of Labor, Office of Workers Compensation Program;
- b. Assist managers and employees with completing forms;
- c. Submit the appropriate forms to OWCP;
- d. Provide light and limited duty assignments when assigned;
- e. Ensure medical documentation is received for disability;
- f. Coordinate converted claims with managers; and
- g. Coordinate and track COP with managers and employees.

3.6 Executives, Chiefs, Managers, and Supervisors:

All members of management are accountable for work-related injuries and illnesses that occur in their area of responsibility. Steps to integrate this accountability into each directorate, office, and/or division's daily operations, include the following:

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- a. Ensure subordinate supervisors are fulfilling their responsibilities by immediately responding to major incidents;
- b. Participate in investigations and corrective actions. Allocate the necessary resources to ensure that corrective actions are effectively implemented;
- c. Routinely involve employees in health and safety meetings where issues and solutions are explored, and seek solutions that are reached jointly between labor and management;
- d. Discuss pertinent health and safety issues in routine meetings;
- e. Review reports to ensure that corrective actions are completed in a timely manner;
- f. Where corrective actions are not effectively completed, take immediate action to ensure corrective actions are effectively implemented; and
- g. Hold subordinate supervisors, managers, and chiefs accountable for injuries, illnesses, and near misses in their area(s) of responsibility.

4.0 Contractors involved in an incident/accident:


- a. Immediately report incident along with any injuries to the COR;
- b. Complete EHS Incident Report (BEP Form 1945) found on In\$ite under BEP Forms; and
- c. The COR shall provide a copy of the completed Incident Report Form the OEHS.

5.0 Related Documents:

EHS Incident Report Form (BEP Form 1945)

6.0 Document Revision History

Rev. #	Purpose of Revision	Eff. Date	Approved by:
1	3.2 d ii – added WC staff for contact; 3.2 g. i – added Service Request	3/8/11	N. Mohlmann
2	Requirement for injuries to be reported within 24hours	7/7/11	N. Mohlmann
3	Changed document number to new scheme – removed reference to Webforms and COTR	04/15/14	N. Mohlmann
4	Update reference to workers compensation specialist, added section for Occupational Health Division - workers compensation specialist, and minor text modifications	9/07/17	J. Roberts for V. Antoine-Pompey

	Emergency Medical Response	Revision: #2
	75D-06.0-03	Effective: 3/16/17

1.0 Purpose:

The purpose of this document is to provide procedures for the response and transport of injured employees.

2.0 Scope: DCF

3.0 Roles and Responsibilities:

3.1 The OEHS, in conjunction with the Office of Security, is responsible for coordinating and arranging the emergency transport of injured BEP employees.

3.2 The Health Unit staff shall:

- a. Respond to medical emergencies immediately with appropriate diagnostic and treatment supplies;
- b. Assess injuries and treat accordingly;
- c. Determine what type of transportation is appropriate for the injured employee (In the case of a life threatening situation Police Communication Center (PCC) shall call D.C. emergency responders ASAP);
- d. Coordinate transportation for injured employees, if needed;
- e. Document the injury, treatment and disposition in the medical management database;
- f. Call ahead to the medical facility to inform them of the incoming patient; and
- g. Keep the employee's supervisor informed of the employee's condition and disposition.

3.3 The Office of Security is responsible for ensuring Police Officers maintain CPR training, and dispatch them to medical emergencies within BEP, as follows:

- a. Respond immediately to incoming communications related to a medical emergency, and document pertinent information;
- b. Dispatch the nearest Police Officer to the scene;
- c. Call the Health Unit to relay pertinent information;

- d. Call DC Emergency Medical Services on 911 and give location of medical emergency;
- e. Escort DC emergency responders to the employee's location; and
- f. Standby and allow DC EMTs to take charge of the medical treatment.

3.4 Employees who encounter an injured person shall:

- a. Call PCC on 4-0911 and inform the Police Officer that you need immediate medical assistance. Give your name, location and phone number. Answer all questions and do not hang up on the Officer until they end the call;
- b. While waiting for help to arrive, try and get as much information as possible from the employee about their condition, this information can be critical if the employee becomes incapacitated and cannot communicate for themselves. (Example questions: What are you feeling? Do you have a preexisting condition or medical history? Are you on any medications? Do you have any allergies?);
- c. Ease the employee to the floor or other place to lie down (to prevent a fall if they pass out). If the employee is not breathing and has no pulse and you know CPR, follow the procedures;
- d. Provide comfort to the employee until the emergency responders arrive. The first responder should be a BEP Police Officer, trained in CPR and automatic external defibrillator (AED) use; and
- e. Remain in the vicinity, after medical help has arrived, to answer questions.

4.0 Medical Response Hierarchy:

BEP Police Officers are the first responders to medical emergencies. Upon arrival, the Health Unit staff assumes patient. If applicable, DC Emergency Medical Technicians take over patient care from the Health Unit staff.

5.0 Transport of Injured Employee:

- 5.1 Life Threatening condition: While stabilizing the patient, the HU staff will instruct PCC to arrange for transport in an ambulance. The HU staff will stay with the employee until emergency medical services arrives. For Landover Warehouse employees, an ambulance should be called for any life threatening condition.
- 5.2 Non-Life Threatening condition: After stabilizing the patient, the HU staff will call a local taxi company to transport the patient to the George Washington University Hospital Emergency Room (GW) or other local hospital. For non-life threatening conditions at Landover Warehouse, injured employees should be sent to the nearest medical facility via taxi cab.

NOTE: If a taxicab fails to arrive, within 10-15 minutes from the time the call is placed, the Health Unit staff will contact PCC (4-0911) and request a Police Officer to transport the patient to GW.

6.0 Related Documents:

6.1 Injury and Illness Reporting 75D-06.0-02

7.0 Document Revision History

Rev. #	Purpose of Revision	Eff. Date	Approved By
1	Change doc numbers; change emergency number; change PCC to CPC	4/21/14	N. Mohlmann
2	Minor grammatical changes/CPC changed to PCC	3/16/17	N. Mohlmann



Bloodborne Pathogens

75D-06.0-04

Revision: #4

03/22/2017

1.0 Purpose:

To establish a written exposure-control plan, in accordance with OSHA standard 29 CFR 1910.1030.

2.0 Definition:

Pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, Hepatitis B Virus (HBV) and Human Immunodeficiency Virus (HIV).

3.0 Scope:

This program covers employees with potential occupational exposure to bloodborne pathogens. This policy and procedure includes requirements for personal protective equipment, engineering controls, housekeeping procedures, training, exposure reporting and recordkeeping. The following occupations have been identified as falling under the scope of this document:

- Police Officers
- Plant Services
- Plumbers
- Mutilated Currency Examiners and Specialists

2.0 Roles and Responsibilities:

4.1 The Office of Environment Health and Safety (OEHS) shall be responsible for:

- a. Coordinating and documenting training of employees and contract personnel covered by this program;
- b. Making recommendations for selection of appropriate personal protective equipment (PPE) and, Engineering Controls (e.g. sharps containers) and making sure these items are kept in stock; and
- c. Investigating and recording all exposure incidents. Circumstances surrounding an incident shall be documented and analyzed in order to determine the continued suitability of this policy and procedure.

4.2 The Health Unit (HU) shall:

- a. Dispose of items contaminated by human blood and/or other potentially infectious materials. Responsibility is limited to items which can be contained either in a sharps refuse container or a red biohazard waste disposal bag;
- b. Provide and administer the Hepatitis B vaccine to covered employees who choose to be immunized or have them sign a statement of declination;

- c. Create and maintain medical files for all employees covered by this procedure;
- d. In case of probable exposure, perform serologic testing for any exposed employee and for the source individual, if that person is available;
- e. Provide a confidential medical evaluation for any exposed employee;
- f. Provide any exposed employee and the Injury and Illness Program Manager, with a copy of a health care professional's written opinion within 15 days of the evaluation;
- g. Inform each exposed employee of applicable laws and regulations concerning disclosure of the identity and infectious status of the source individual;
- h. Administer medical counseling to each exposed employee; and
- i. Refer the exposed employee to his or her personal physician for further evaluation and treatment if the exposed employee develops signs, symptoms, or laboratory findings compatible with a disease process related to the exposure.
- j. Be available to provide feedback in connection with bloodborne pathogen training.

4.3 Supervisors of each employee covered in the scope shall:

- a. Read and understand the provisions of this policy and ensure provisions necessary for implementation of this standard are available to employees at no cost;
- b. Ensure all affected employees participate in scheduled training sessions at the time of initial assignment and annually thereafter;
- c. Ensure use of appropriate PPE;
- d. Ensure all potential exposure incidents where an employee did not use required PPE are investigated;
- e. Ensure PPE used by the employee is laundered, cleaned, disposed of, or repaired/replaced at no cost to the employee; and
- f. Ensure the exposure incident is reported and investigated by the OEHS.

4.4 Each employee covered by this policy shall ensure that he or she:

- a. Understands the provisions of this policy and is steadfast in carrying out all requirements;

- b. Reports an incident of exposure to a supervisor;
- c. Wears required PPE to prevent infection during an incident for which it is reasonable to believe that an exposure could occur;
- d. Remove all soiled articles, immediately or as soon as feasible, and place them in an impermeable bag for transfer to a cleaning facility. If a garment has been penetrated with potentially infectious blood or other fluid, shower as soon as possible;
- e. Removes all PPE prior to leaving the area in which the exposure incident occurred;
- f. Does not eat, drink, smoke, apply lip balm or cosmetics, or handle contact lenses whenever conditions present a reasonable likelihood of occupational exposure to potentially infectious materials;
- g. Notifies the area supervisor in order to get the contaminated surface cleaned with a disinfectant; and
- h. Washes hands and all other affected body parts, immediately with soap and running water.

4.0 Exposure Control Plan

Exposure Determination

To date, there are four job classifications within BEP covered by this policy as delineated in the introduction section:

- 5.1. Police Officers: In the process of carrying out their duties, Police Officers are required to administer first aid and other emergency medical treatment. Not every situation for which PPE will be needed can be predicted; however, situations which could result in occupational exposure to infectious materials are:
 - a. The forcible apprehension of a subject, if the apprehension results in the effusion of blood or other potentially infectious materials from either the subject or the Police Officer; and
 - b. Any situation in which emergency treatment of a subject results in likely contact with blood or other potentially infectious materials, including CPR procedures, needle sticks, bandaging a wound, etc.
- 5.2. Plant Services Employees: These employees may be required to clean contaminated surfaces as a result of an accident or injury.
- 5.3. Plumbers: Plumbers may be exposed to blood and body fluids through the course of routine duties.

- 5.4. **Mutilated Currency Examiners/Specialists:** These employees occasionally handle currency that has been contaminated with blood and body fluids.

Method of Compliance

- 5.5. Universal precautions shall be observed by all employees affected by this standard. It shall be assumed by all persons in the performance of tasks covered by this standard, that all human blood and certain human body fluids contain bloodborne pathogens. All reasonable precautions shall be undertaken to prevent contact with infectious materials.
- 5.6. The necessity for observing universal precautions shall be stressed during training sessions. These training sessions shall take place for current employees or at the initial time of employee assignment to a position covered by this policy and at least annually thereafter.
- 5.7. Training sessions, which include procedures to follow after an exposure incident and employee rights and responsibilities, will be provided to covered employees.
- 5.8. The Shift Commander shall be responsible for providing Police Officers with the appropriate PPE. These items shall be made easily accessible to Police Officers and shall be of appropriate sizes. In the event that an employee is allergic to the gloves provided, hypoallergenic gloves shall be made available.
- 5.9. All soiled laundry and biohazard waste (red bags) from the HU shall be transported to the loading dock, by HU personnel, for pick-up and disposal by a contract service.
- 5.10. All medical waste sharp containers from the HU shall be disposed through a contract service.
- 5.11. All employees, under the scope of this procedure shall be offered the Hepatitis B vaccine series, at no cost to the employees. This vaccination shall be administered during the employee's scheduled work hours under the supervision of a licensed physician or other licensed health care professional and provided in accordance with the recommendations of the U.S. Public Health Service that are in effect at the time the services are administered. These provisions shall include booster dose(s) at a later date if they are recommended by the U.S. Public Health Service.
- 5.12. Employees who decline the Hepatitis B vaccination shall not be penalized for their refusal. However, these employees shall sign the Hepatitis B Declination Form. This statement shall be kept and maintained in the HU. The Hepatitis B vaccination shall be made available to each affected employee after the employee has received training as described within this document and pursuant to 29 CFR Part 1910.1030.
- 5.13. If an employee has medical reasons for not accepting the Hepatitis B vaccination series, and has demonstrated immunity through antibody testing, or has previously received the complete Hepatitis B vaccination series, the employee shall supply the documentation for such fact(s) or shall sign the Hepatitis B Vaccine Declination Form. The employee shall not be required to participate in a pre-screening program as a prerequisite for receiving the Hepatitis B vaccination.

- 5.14. All employees have the right to decline vaccination. Employees who initially decline vaccination, but at a later date elect to undergo the vaccination, shall abide by the requirements established in this chapter.

Engineering Controls and Work Practices

- 5.15. Universal precautions will be observed by all Physical Plant employees in order to prevent contact with blood or other potentially infectious materials. All blood or other potentially infectious materials will be considered infectious regardless of the perceived status of the source individual.

Personal Protective Equipment

- 5.16. All personal protective equipment will be chosen based on the anticipated exposure to blood or other potentially infectious materials.

Housekeeping

- 5.17. Plant Services must decontaminate all contaminated work surfaces, tools, objects, etc. immediately or as soon as feasible after any spill of blood or other potentially infectious materials. The disinfectant must be left in contact with contaminated work surfaces, tools, objects, or potentially infectious materials for at least 10 minutes before cleaning.
- 5.18. Equipment that may become contaminated with blood or other potentially infectious materials will be examined and decontaminated before servicing or use.

Post-exposure Evaluation and Follow up

- 5.19. Following the report of an exposure incident, the exposed employee shall have immediate access to confidential medical evaluation and follow-up including the following:
- c. Documentation of the route(s) of exposure and the circumstances under which the exposure incident occurred, as prepared by the OEHS Safety and Health Division (SHD); and
 - d. Identification of the source individual, unless it can be established that identification is infeasible or prohibited by state or local law. The source individual's blood shall be tested as soon as feasible after the incident and upon legal consent to determine Hepatitis B Virus (HBV) or Human Immunodeficiency Virus (HIV) infectivity.
- 5.20. The above information regarding follow-up shall be given to the HU, which will be responsible for the exposed employee's health care consultation after the exposure incident. All medical records relevant to the appropriate treatment of the exposed employee, including vaccination status, shall be added to this documentation by the HU.

- 5.21. The HU shall provide the employee and the Injury and Illness Program Manager, with a copy of the health care professional's written opinion within 15 days of completing the evaluation. This written opinion shall be limited to the following information:
- e. Whether or not the Hepatitis B vaccination is indicated for the exposed employee and whether the employee has received such vaccination;
 - f. If the employee has been informed of the results of the evaluation; and
 - g. That the employee has been informed of medical conditions which have resulted from exposure to blood or other potentially infectious materials and which require further evaluation or treatment.
- 5.22. All other findings shall remain confidential and shall not be included in the written opinion.
- 5.23. The exposed employee's blood shall be collected and tested as soon as feasible after an incident and after consent is obtained.
- 5.24. The source individual's blood shall be collected and tested as soon as feasible after an incident and after consent is obtained.
- 5.25. The HU shall administer medical counseling to the exposed employee.
- 5.26. Post-exposure evaluation and follow-up, including Hepatitis B vaccination, shall be made available at no cost to the employee during his or her scheduled work hours. It should be made under the supervision of a licensed physician or other licensed health care professional and in accordance with the recommendations of the U.S. Public Health Service.

5.0 Communication of Hazards to Employees

- 6.1 Labels and Signs – The HU staff shall be responsible for reading and understanding the Hepatitis B vaccination section and for ensuring compliance with the requirements of this procedure. In addition, all contaminated waste must be placed in red trash bags for disposal through the HU.

6.0 Recordkeeping

- 7.1. All records required by this procedure shall be available for examination to the Assistant Secretary of Labor for Occupational Safety and Health or a designated representative and to the Director of the National Institute for Occupational Safety and Health, U.S. Department of Health and Human Services, or a designated representative. Additionally, medical records shall be available to the subject employee or anyone having written consent from the subject employee.
- 7.2. Medical Records. A medical record for each employee covered by this procedure shall be maintained. This record is to be kept confidential and under the domain of the HU. This record will not be disclosed or reported without the employee's expressed written

consent to any person outside the workplace except as required by law. The employee record shall include the following information:

- a. The name and social security number of the employee;
- b. A copy of the employee's Hepatitis B vaccination status, including the dates of all Hepatitis B vaccinations, and any medical records relative to the employee's ability to receive vaccination. If the employee has refused the vaccination, the required signed statement must be included in the record;
- c. All post-exposure investigation, documentation and follow-up procedures;
- d. A copy of all information provided to the HU by the OEHS; and
- e. All medical records must be maintained for at least the duration of employment of the affected employee plus 30 years.

7.0 Training

8.1 All employees with occupational exposure shall be trained in accordance with the requirements of this section:

- a. At the time of initial assignment;
- b. At least annually thereafter;
- c. Annual training shall be provided within one year of previous training; and
- d. Additional training shall be provided when changes or modifications are made to tasks or procedures that may affect the employee's occupational exposure.

8.2 The training program shall contain at minimum the following elements:

- a. An accessible copy of the regulatory text of this standard and explanation of its contents;
- b. A general explanation of the epidemiology and symptoms of bloodborne diseases;
- c. An explanation of the modes of transmission of bloodborne pathogens;
- d. An explanation of the employer's exposure control plan and the means by which the employee can obtain a copy of the written plan;
- e. An explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure to blood and other potentially infectious materials;
- f. An explanation of the use and limitations of methods that will prevent or reduce exposure including appropriate engineering controls, work practices, and personal protective equipment;
- g. Information on the types, proper use, location, removal, handling, decontamination and disposal of personal protective equipment;
- h. An explanation of the basis for selection of personal protective equipment;


- i. Information on the hepatitis B vaccine, including information on its efficacy, safety, method of administration, the benefits of being vaccinated, and that the vaccine and vaccination will be offered free of charge;
- j. Information on the appropriate actions to take and persons to contact in an emergency involving blood or other potentially infectious materials;
- k. An explanation of the procedure to follow if an exposure incident occurs, including the method of reporting the incident and the medical follow-up that will be made available;
- l. Information on the post-exposure evaluation and follow-up that the employer is required to provide for the employee following an exposure incident;
- m. An explanation of the signs and labels and/or color coding required by the standard;
- n. An opportunity for interactive questions and answers during the training session;
- o. The training delivery shall be knowledgeable in the subject matter covered by the elements contained in the training program as it relates to the workplace that the training will address; and
- p. The employer shall provide a training program to employees who have no prior experience in handling human pathogens. Initial work activities shall not include the handling of infectious agents. A progression of work activities shall be assigned as techniques are learned and proficiency is developed. The employer shall assure that employees participate in work activities involving infectious agents only after proficiency has been demonstrated.
- q.

8.0 Related Documents:

Hepatitis B Vaccine Consent Form
Hepatitis B Declination Form
Consent for the Release for Medical Records

9.0 Document Revision History

Rev. #	Purpose of Revision	Eff. Date	Approved by
1	Change Document Numbers	04/29/14	N. Mohlmann
2	Annual Update/Review – No changes	04/15/15	N. Mohlmann
3	Annual Update/Review – No changes	04/15/16	N. Mohlmann
4	Added 4.2/J and Section 8 - Training	03/22/17	N. Mohlmann

	Automatic External Defibrillators	Revision: #7
	75D-06.0-05	Effective: 3/16/17

1.0 Purpose:

The purpose of this procedure is to outline the requirements for training, maintenance and deployment of Automatic External Defibrillators (AEDs) at the Bureau of Engraving and Printing's Washington, D.C. Facility (DCF) and at the Landover, Maryland Warehouse.

2.0 Scope:

This procedure applies to the DCF (and Landover, Maryland Warehouse) and to all personnel trained in the use of AEDs. Trained personnel include Police Officers and Occupational Health Unit (HU) Staff.

2.1 **Note:** AEDs are to be used only by personnel specifically trained in the operation of the AED and qualified by training in advanced cardiac life support, in basic life support, or in other physician-authorized emergency medical response.

3.0 Responsibilities:

3.1 The Office of Environment, Health and Safety (OEHS) is responsible for:

- a. Writing, reviewing, and updating this policy,
- b. Purchasing replacement AEDs, repair parts, and service as needed to ensure they operate properly,
- c. Ensuring AED inspections are performed in accordance with this procedure,
- d. Ensuring that inspections are documented on the appropriate inspection tag, and
- e. Serving as the AED program coordinator.

3.2 The Occupational Health Unit is responsible for:

- a. Providing medical support and oversight of the AED Program,
- b. Ensuring Health Unit staff is trained and competent in the use of AEDs,
- c. Reviewing AED training material to ensure it is current and appropriate;

- d. Conducting an event review each time an AED is used (including a review of the AED's data card, where applicable) and interviewing responders, and
- e. Notifying the AED program coordinator of the incident.

3.3 The Office of Security is responsible for:

- a. Ensuring that all Police Officers receive first aid/ Cardiopulmonary Resuscitation (CPR) /AED training (**The AEDs used at the DCF shall be used during the training**),
- b. Maintaining Officers' AED training records,
- c. Ensuring Police Officers follow this procedure, and
- d. Completing an incident report after an AED event.

3.4 AED/Cardiac Emergency responders are responsible for:

- a. Participating in initial and biennial refresher AED training courses,
- b. Following appropriate protocol in the event of a cardiac emergency, and
- c. Reading and understanding this procedure.

4.0 Location of AEDs:

4.1 AEDs are positioned at the following locations at the DCF and Landover Warehouse:

Building	Location	Inspector
Annex Building	13 th Street Entrance, Second Floor	OEHS Staff
	14 th Street Entrance, First Floor	OEHS Staff
	Security, Rm. 534-A	OEHS Staff
Main Building	Police Communication Center (PCC), Room 10-7A	OEHS Staff
	Post 1M-11, Tour Bridge Entrance	OEHS Staff
	Post 1M-16, Visitor's Bridge/East of Souvenir Store	OEHS Staff
	Occupational Health Unit, Room 303M	Health Unit Staff and OEHS Staff
	Fitness Center, Room 517M	OEHS Staff
Landover Warehouse	Warehouse "D"	Landover Staff (weekly) & OEHS Staff (monthly)
*Different Locations	Cruiser 100	Security Staff
*Different Locations	Cruiser 300	Security Staff

5.0 Procedures:

5.1 AED Inspections:

- a. Weekly Inspection: The inspector from the component designated in the table above, shall visually check the AED's LED Status Indicator weekly. It is not necessary to remove the AED from its nylon bag or cabinet to perform this inspection.
- b. Monthly and after each use: Once a month and after each use, the inspector shall open the AED cabinet and bag and verify that the following supplies are present and within "install before" date (as applicable):
 - i One set of defibrillation pads, sealed;
 - ii Ancillary supplies (towelettes, scissors, razor, gloves, and face shield); and
 - iii PC data card

- c. Inspections are recorded on the AED tag attached to the cabinet.

5.2 Activation of the AED response team at DCF: In any potentially life-threatening emergency:

- a. The PCC is contacted at 202-874-0911.
- b. The PCC will immediately contact D.C.F.D. Emergency Medical Services (EMS) on 9-911 and then the Health Unit on ext. 4-2895.
- c. Immediately upon being informed of the emergency, Health Unit staff must always respond **with the Health Unit AED** to the site of the emergency. A Police Officer with an AED will also be dispatched by the PCC. The first trained AED responder to arrive on the scene will initiate care as the situation indicates.
- d. If AED use is indicated, the AED trained personnel, with assistance from other AED trained staff (if available), will administer the AED along with CPR according to established protocols until local EMS professionals arrive and assume care of the victim.
- e. If a life-threatening emergency occurs at a time that the Health Unit is not staffed, an AED-trained Police Officer will bring the nearest AED unit to the emergency site. If warranted, the Police Officer will administer the AED and CPR according to established protocols until local EMS professionals arrive and assume care of the victim.

5.3 AED Protocol: Upon arriving at the location of the victim, HU Staff or other AED Responders will:

- a. Assess the safety of the situation and environment,
- b. Assess the victim, and
- c. Proceed with the CPR and AED Treatment Algorithm as indicated

5.4 Post AED Incident Procedures:

- a. After the victim has been appropriately transferred to the local EMS professionals' care, the Health Unit staff shall notify the AED program coordinator and hold an event review for all AED providers involved.
- b. The Office of Security staff shall complete an incident report documenting the occurrence.

6.0 Training Requirements:

First responders who are authorized to use AEDs must successfully complete an initial American Red Cross or American Heart Association-approved CPR/AED course. Refresher training is required every two years. The DCF's AED shall be used for training purposes.

7.0 Record Keeping Requirements:

7.1 Police CPR/AED training records shall be kept by the Office of Security.

7.2 Occupational Health Unit training records shall be kept by the respective HU COR.

7.3 The program coordinator shall keep inspection tags for one year.

8.0 Document Revision History

Rev. #	Purpose of Revision	Eff. Date	Approved By:
1	Minor grammatical corrections, added OEHS responsibility	7/7/08	N. Mohlmann
2	Annual review and minor grammatical changes	6/17/10	N. Mohlmann
3	Change doc numbers; change CPOC number	4/23/14	N. Mohlmann
4	Procedure updates	9/2/15	N. Mohlmann
5	Added a new location for an AED and updated Landover's inspection frequency	7/14/16	N. Mohlmann
6	Added three new locations and made minor grammatical changes	8/24/16	N. Mohlmann
7	Minor grammatical changes. Updated Inspector for Cruisers 100 and 300 from OEHS staff to Office of Security staff. Changed 6.0 from Personnel to First responders.	3/16/17	N. Mohlmann

