Emergency Management Initial - CNS
CR/TO 141.01

CNS | consolidated nuclear security, llc
PANTEX PLANT | Y-12 NATIONAL SECURITY COMPLEX

Terminal Objective

Upon completion of this course, the trainee will adhere to the site Emergency Management Program.

Enabling Objectives

- EO1 Identify the Purpose of the Emergency Management Program.

- EO2 Describe Employees' Responsibilities.

- EO3 Describe the Notification of an Operational Emergency (OE) Incident/Continuity Event Process.

- EO4 Explain the Purpose of the Emergency Response Organization (ERO).

Enabling Objectives

- EO5 Describe Building Warden/Building Emergency Warden (BEW) Program.

- EO6 Define Protective Actions/Population Control Measures.

- EO7 Describe the Plant Personnel Accountability System (PPAS).

- EO8 Identify Actions for a Bomb Threat.

Enabling Objectives

- EO9   Identify Actions for a Suspicious Package.

- EO10 Identify Post Emergency Self-Help Actions.

EO1

Identify the Purpose of the Emergency Management Program.

Emergency Management Department Purpose

- *Minimize the consequences of all emergencies involving or affecting the site*

- *Protect the health and safety of all workers and the public*

- *Prevent damage to the environment*

Operational Emergencies (OEs)

- *Emergencies that can affect the plant*

- *Major unplanned or abnormal incidents/conditions that involve or affect plant facilities and activities by:*
  - *Causing or having the potential to cause serious health and safety or environmental impacts.*
  - *Requiring time-urgent notifications to initiate response activities beyond event-scene.*

EO1

Continuity of Operations Program (COOP)

Ensures the capability to continue essential functions during a continuity incident and to efficiently and effectively resume operations following interruption.

Continuity of Operations (COOP)

Two action categorizations under COOP
- Mission Essential Functions (MEFs)
- Essential Support Activities (ESAs)

Please refer to your handout.

NOTE: If your area of responsibility includes MEFs or ESAs (those activities that support the completion of MEFs), your supervisor will communicate your responsibilities in these regards.

EO2

Describe Employees' Responsibilities.

Employees' Responsibilities

1. Report hazards/abnormal incidents to supervision and/or:
   - Pantex - Operations Center (OC) @ (806) 477-5000
   - Y-12 Operations Center (OC)- Landline (911), Cell Phone – (865) 574-7172

2. Be familiar with Protective Actions

3. Take reasonable actions to ensure your own safety

4. Spread the word to others around you

EO2

Employees' Responsibilities

5. Lend assistance to others

6. Follow directions provided by emergency response personnel or as communicated via:
   - Public address (PA) announcement (Pantex only)
   - Pager
   - Two-way radio
   - Pantex Outdoor Warning Sirens
   - Y-12 Emergency Notification System (ENS)
   - Directions from supervisors or emergency response personnel

EO2

Employees' Responsibilities

7. ***Take appropriate actions to preserve conditions as long as they DO NOT interfere with personal safety.***

8. If you are working outdoors or preparing to do so with a storm approaching, contact your supervisor or the OC for weather warning confirmation.

Employees' Responsibilities

NOTE: The designated point of contact (POC) for visitors or subcontractors working on the site must coordinate a communication method to notify visitors or subcontractors who are working in remote areas not covered by warning systems.

9. If a drone is observed over Pantex/Y-12 property, notify the OC/PSS immediately with the following information:
- Location
- Identifying marks, if observed (i.e. color, numbers, etc.)
- Direction of travel
- Any observable objects hanging from the drone

EO3

Describe the Notification of an Operational Emergency (OE) Incident/ Continuity Event Process.

Notification can come in different forms:

- Alarms

- Communicator System

- Computer/Intranet

- Fax Machines

- Instant Messenger

- Pantex Outdoor Warning System

- Paging Systems

- Public Announcement (PA) System (Pantex only)

- Telephone

- Two-Way Radio

- Y-12 Emergency Notification System (ENS)

EO3

Operations Center (OC)

- Focal point for emergency incident response 24/7/365

- *Activates the Emergency Response Organization (ERO)*

- *Notifies off-site agencies if necessary*

Alert Notifications (Y/P-Alert)

Y/P-Alert notifications keep employees informed about site closures or delays not only during inclement weather, but any other conditions that could impact the site's schedule or access. Employees can quickly sign up to receive Pantex and Y-12 alerts using OneStop.

EO4

Explain the Purpose of the Emergency Response Organization (ERO)

Emergency Response Organization (ERO)

Team of responders responsible for the management, response, mitigation, and recovery from emergency and continuity incidents.

EO5

Describe Building Warden/
Building Emergency Warden (BEW)
Program.

Building Warden/ Building Emergency Warden (BEW) Program

- *An important component in emergency management planning.*

- Responsible for ensuring that building/facility personnel have properly responded to the announced protective action.

EO6

Define Protective Actions/

Population Control Measures.

Protective Actions/Population Control Measures

- *Designed to protect the health and safety of workers and the public*

- Employees are required to implement protective actions when notified by:
  - OC
  - Supervisors/Managers
  - Emergency Response Personnel

- Adherence to procedures is expected

Protective Actions/Measures

- Personnel MUST NOT leave the shelter area or re-enter a building/facility unless the "All Clear" has been given or as directed by emergency response personnel.

- Promptly and effectively implemented to minimize emergency-related consequences

Protective Actions

- Evacuation

- Sheltering

- Active Assailant

Evacuation

- Action taken to relocate an at-risk population from an area of known danger or unacceptable risk to a safer location.

- Pantex – muster station maps are posted

- Y-12 – Assembly station maps are in orange binders

Evacuation

- Accountability – process to ensure search, rescue, and assistance efforts can be initiated promptly.

- Accountability is achieved when missing personnel are identified or it is established that no persons in the facility are in need of assistance or rescue.
  - Positive accountability – used in hazardous and/or geometrically complex buildings and includes an individual employee verification
  - Negative accountability – Building Wardens conduct sweeps to ensure everyone has evacuated and/or taken appropriate protective actions

Response for Building Evacuation

- Evacuate the building using the safest and fastest possible route, avoiding the area of the emergency
- Travel to the nearest muster/assembly station.
  - Pantex – Follow site-specific accountability, Building Warden/supervisor/POC will provide information to the OC, if possible fax to (806) 477-5037 immediately
  - Y-12 – first person becomes the Assembly Station Director, follow accountability, ASD provide information to the OC
- Follow any directions or instructions from emergency responders, supervisors or OC
- Do not re-enter an evacuated building

JCDC Evacuation

- Each floor and wing have Building Wardens and alternates assigned that will have the responsibility for coordinating the emergency response actions.

- Muster stations are located outside of the JCDC 250-300 feet away and consists of four numbered locations. Personnel will evacuate to the muster station nearest to their work location assignment.

- The muster station locations will be marked with signs. Maps indicating locations of the muster stations will be posted at each entry and exit of the building.

- The Building Wardens will coordinate and communicate the evacuation to the Muster station. Quick and accurate negative accountability can prevent the initial emergency responders from conducting a needless and potentially hazardous search-and-rescue mission.

PanTEX

SITE LAYOUT

Relocation

- Directed and organized movement of personnel from one area to another predetermined location.

- Personnel are expected to leave their building/area in a normal manner.

- Personnel should not relocate to personal or contractor vehicles.

Y·12

Accountability Methods

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SHELTERING

Action taken to protect plant personnel from incidents resulting from hazardous materials, severe weather, and security incidents.

1. Shelter for hazardous material

2. Shelter for severe weather

3. Shelter for security event

Shelter for Hazardous Material Release

Action taken to use a barrier, most often a building, to shield individuals from an airborne hazardous materials release.

- Stop work and attempt to secure classified materials/systems/repositories
- Go inside and/or stay inside
- If possible, turn off air conditioning etc
- Close as many interior windows and doors as possible
- Take advanced measures to reduce infiltration
- Refrain from eating, drinking, smoking, applying cosmetics, using tobacco products, or chewing gum

Shelter for Hazardous Material Release

- If personnel attempt to enter the building, allow them to come in, but segregate potentially contaminated personnel to avoid potential cross-contamination.

- Maximize your safety by minimizing movement within the site.

- Personnel in vehicles should roll up the windows and close vents that draw in outside air, including heaters and air-conditioners, and proceed to a safe area upwind from the incident.

- If caught outside, you can create a make-shift respirator.

Shelter for Hazardous Material Release

Employees should gather at a designated internal assembly point.

- Go indoors immediately
- Close all windows and doors
- Turn off all sources of outdoor air
- Shut down equipment and processes as necessary
- Remain indoors and listen for additional information

Pantex –
Shelter for Hazardous Material Release

Shelter for Hazardous Materials Event in the John C. Drummond Center

- The shutdown of utilities and systems are to be accomplished by Lawler-Wood building management during normal business hours.

- Remain indoors and ensure that all doors and windows are closed. Follow directions from the OC, Building Warden and Emergency Responders.

- The shutdown of utilities and systems outside of normal business hours cannot be accomplished.

- Outside normal business hours, all personnel in the JCDC should move to a room designated with a sign indicating that it is approved for use in a hazardous material release during off-hours tape and cover all doors an vents and then call the call the OC at (806) 477-5000 to report how many personnel are in that designated shelter area

DESIGNATED OFF-HOURS SHELTER FOR HAZARDOUS MATERIALS RELEASE

PanTEX
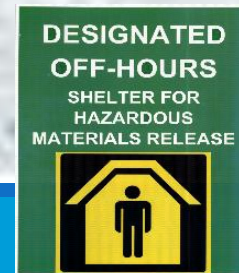
If you are sheltered in the identified room on the 1st, 2nd, or 3rd floors (see diagrams below), you will need to use tape and a ladder, which will be available in the room, to seal the door and the vent.

JCDC First Floor

Off-Hours Shelter for Hazardous Materials Release
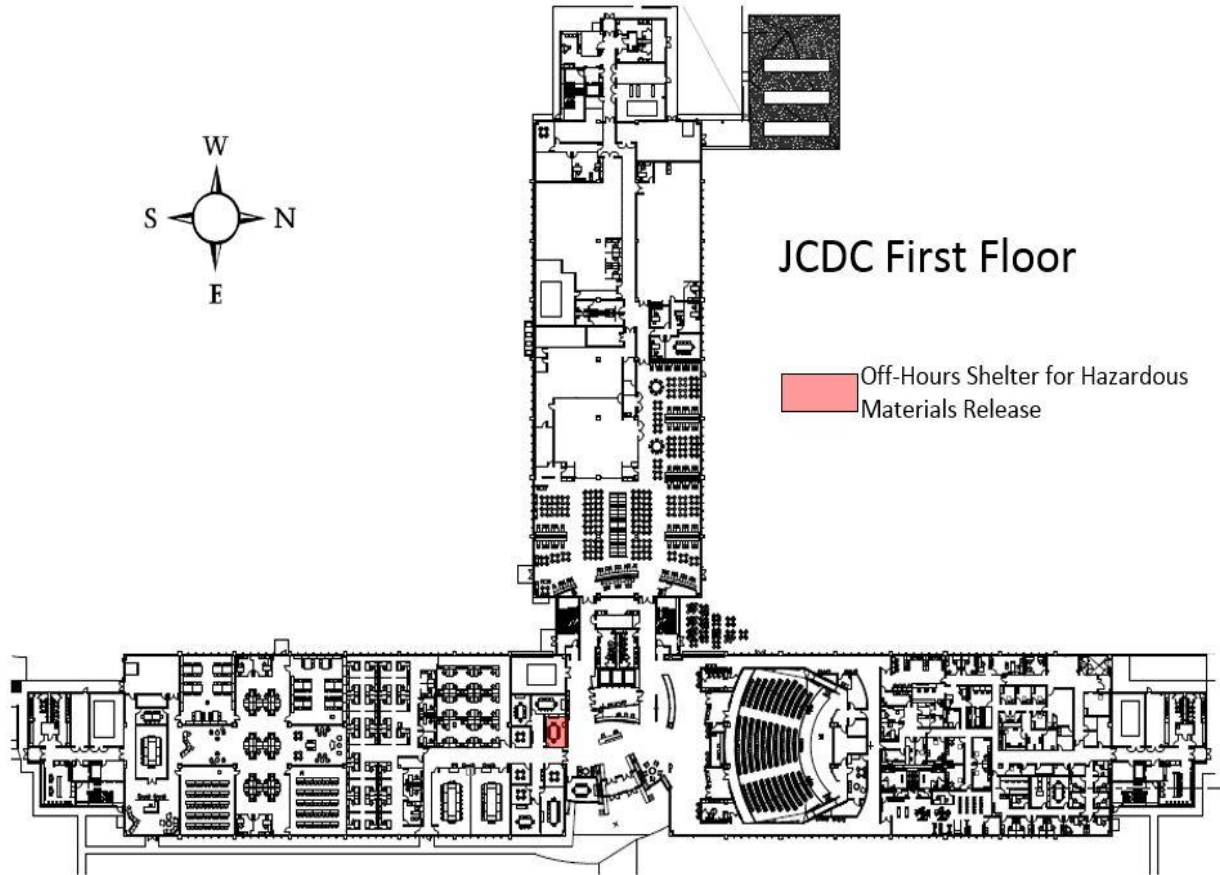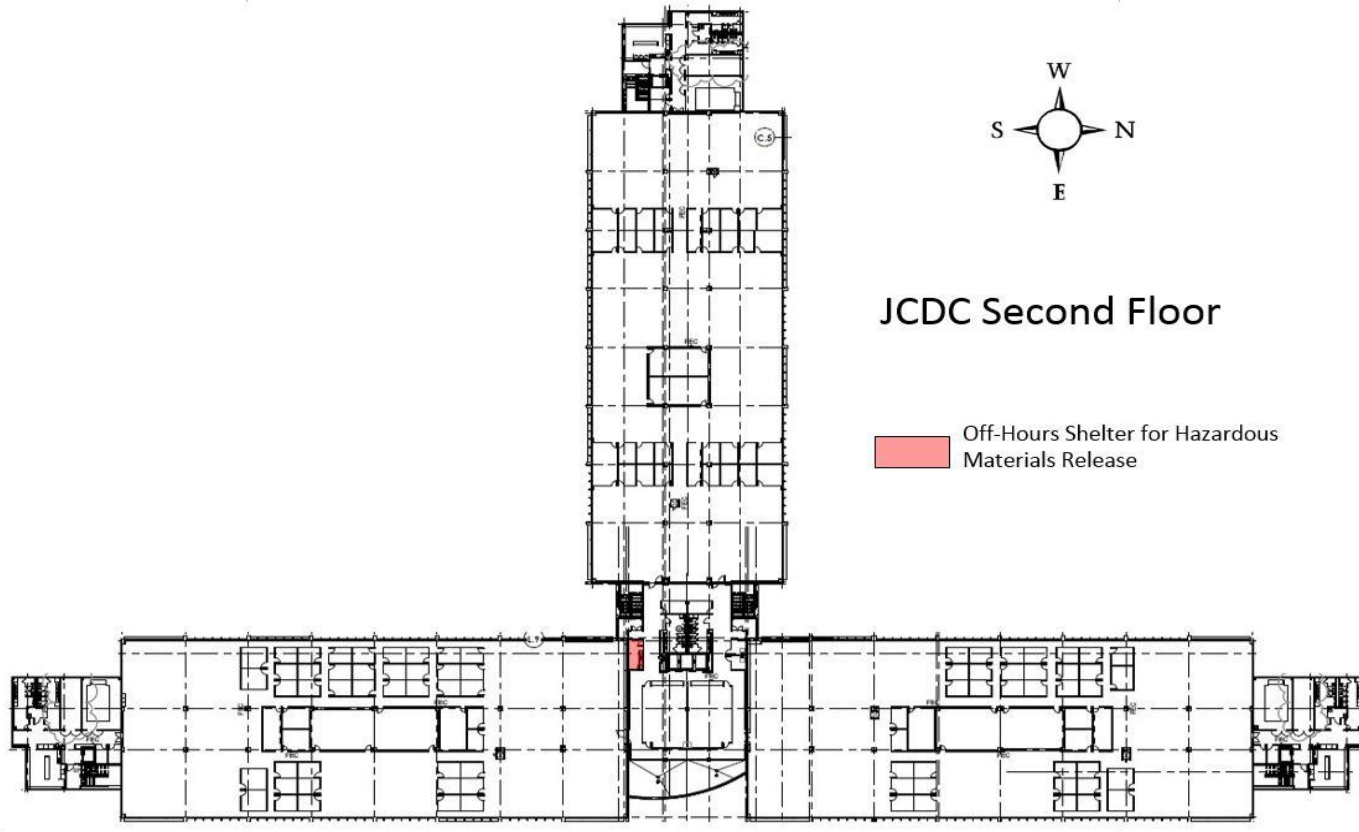
JCDC Second Floor

Off-Hours Shelter for Hazardous
Materials Release
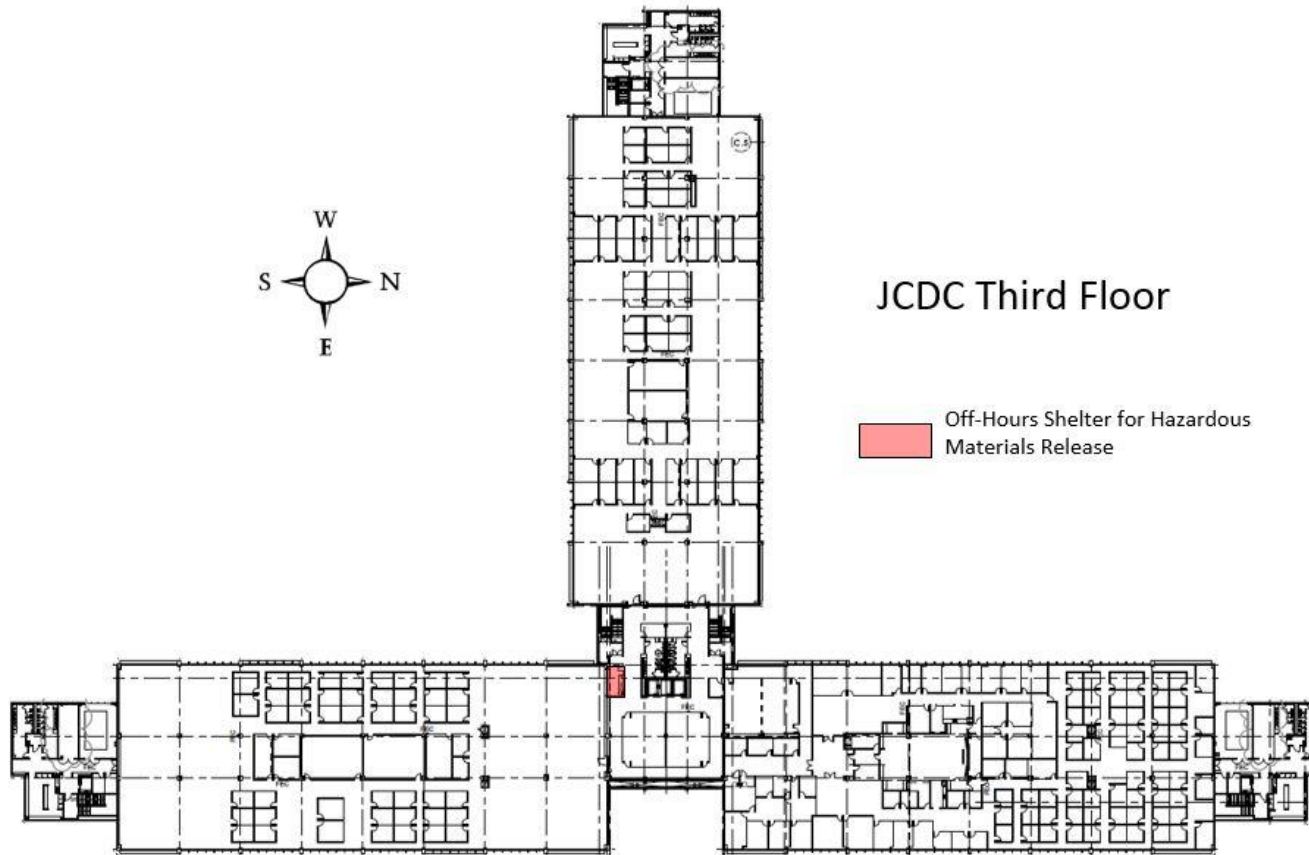
JCDC Third Floor

Off-Hours Shelter for Hazardous
Materials Release

W
S —⊕— N
E

PanTEX

Shelter for Severe Weather

Action taken to use a barrier, usually a strong interior room or below-grade area, to protect individuals from flying projectiles and debris such as from a tornado or severe weather.

Shelter for Severe Weather

Once severe weather is confirmed:

- If time permits: move to the best available severe weather shelter, protect yourself under a sturdy object, hold on to a sturdy object, and assume a tornado-protection position

- If working outdoors: stop work and seek the best available shelter

- If flying debris while driving: stay in the car with your head down and seatbelt on and cover if possible. If you can do so safely get in a low-lying area.

Pantex - Shelter for Severe Weather

During severe weather, it may not always be possible to get to a preferred severe weather shelter.

At Pantex, we have historically identified preferred shelter locations with a **Red** Tornado sticker. In order to identify all potential shelters and to make the distinction between which shelters are best, good, or will work as a last resort, the Emergency Management Department will mark and re-designate shelter locations throughout the site. Shelters will be marked with one of three colored tornado symbols; best (**green**), good (**yellow**), and which ones will work as a last resort (**red**). The marking and re-designation will take place during the month of October.

Pantex - JCDC

JCDC First Floor

Designated Severe Weather Shelter
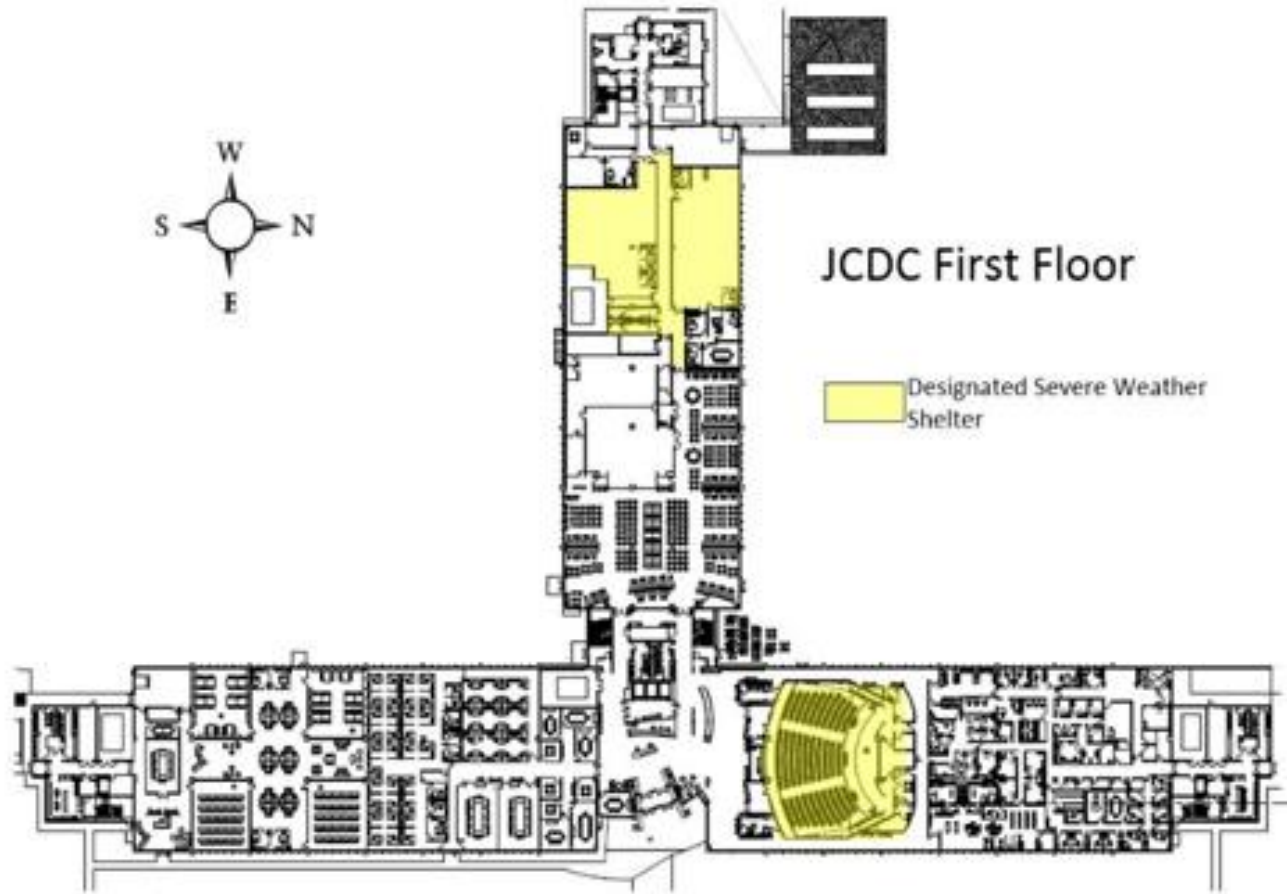
Shelter for Severe Weather

All Weather Notifications—please see handout.

Shelter for Security Event

Involves a series of protective measures that protect national security assets and limit the exposure of plant personnel to adverse impacts.

Examples: overdue items, door alarms, or active assailant events

Shelter for Security Event

- Remain in your current location

- Implement personnel and/or material accountability if directed by the OC or emergency response personnel

- Implement Deny Access protective measures, if applicable to your work location

- Secure access to shelter location, if possible

- Stay clear of doors and windows

- Contact the OC at 477-5000, to report suspicious personnel or activities

EO6

Active Assailant

If an Active Assailant situation exists in the area in which you are located, take the following actions:

RUN:
- Evacuate if a safe escape path exists
- Leave personal belongings behind
- Keep your hands visible
- Prevent people from entering the area
- Follow instruction of SPOs
- Call 911 (Y-12) or OC (Pantex) when you are safe.
  - Your location, number of people at your location, injuries, assailant information

Active Assailant

HIDE:
- Hide, out of view, behind large objects, if evacuation is not possible
- Lock and barricade the door
- Close blinds
- Turn off radio, computers, etc.
- Silence phones and pagers
- Remain quiet

FIGHT:
- Attempt to disrupt of incapacitate the assailant
- Act as aggressively as possible
- Throw items and use improvised weapons
- Yell
- Commit to your actions

Y-12 Protective Actions

During an emergency incident, buildings outside the initial isolation zone (evacuation area) will now be directed by the OC to implement a protective action/measure (sheltering, curfew, etc.) by zones. The protective actions/measures for the East, West, and Central zones are specific to buildings and do not include roadways. The zones end at the Emergency Response Boundary (ERB) and do not include off-site facilities. The attached map identifies these zones.

- **East Zone**: All buildings east of Post 8 including JCC, NHC and the Landfill. The east PIDAS boundary demarcates this zone.

- **Central Zone**: All buildings within the protected area (PA) and outside of the PA between Post 8 and Post 33. This zone includes the UPF construction site, 9127, and the buildings south of the PA along Third Street (9720-9, 9811-7, 9811-6, 9990-3, etc.) as well as the south ridge water tanks.

- **West Zone**: All buildings west of Post 33 including 9720-31 and 9114. The west PIDAS boundary demarcates this zone.

Y-12 NATIONAL SECURITY COMPLEX
ASSEMBLY STATIONS & ZONES

EO6

Warning Signals

- Two emergency alarm signals
  1. Criticality Accident Alarm System (CAAS)—clarion horn sound
  2. Standard Alerting Tone—a high/low sound
- Call (865) 576-3587 to hear the alarms.

Y·12

Criticality Accident Alarm System (CAAS)

- Sounds if there is a criticality accident onsite

- In some areas where the installed CAAS is deficient, Personal Radiation Detection Instruments (PRDI) may be used

- Is installed only in buildings with the potential for criticality incidents

- May be supplemented with visible alarms such as magenta/blue strobe lights

Criticality Accident Alarm System (CAAS)

- **Entering a CAAS Location (Non-resident)**
  - Badge in– OR – Sign in
  - Receive approval from Shift Manager
  - Badge out – OR – Sign out

- **Personnel must stop and read signs before entering the buildings.**

Y·12

Evacuation due to CAAS

- **EVACUATE IMMEDIATELY!**

- Proceed to the nearest assembly station.

- Remain away and DO NOT enter the immediate evacuation zone (200 ft.) unless directed by authorized personnel.

- Follow all postings in the area and instructions of authorized personnel

- Wait until an announcement is made on the ENS/PA

Y12

Standard Alerting Tone

- An important announcement concerning emergency response or actions is about to be made
- You must do the following:
    - Stop working.
    - Listen carefully.
    - Follow instructions given over the ENS/PA
- **In all cases, SAFETY COMES FIRST.**

Y12

Population Control Measures

- Curfew

- Avoid the Area

- Controlled Release

Curfew

Action taken as a population control measure during an emergency response incident when there is a need to control movement throughout the site or portions thereof, but not requiring the protective actions of Evacuation or Sheltering.

Note: Curfew may be implemented for protective action zones not affected by the incident.

Avoid the Area

Will be used to ensure personnel remain well clear of the announced area due to safety or security concerns. Only authorized first responders are allowed into the area.

Personnel in the affected area are to:
- Discontinue activities in progress.
- Implement appropriate protective actions.

All personnel are to:
- Avoid the area of the potential emergency condition.
- Remain alert to implement additional protective actions.

Controlled Release

- Controlled Release is the release of non-essential personnel may happen before, during, or after the early phase of an emergency.

- More closely aligned with the protective action of controlling access to the emergency scene.

- Controlled Release of non-essential plant personnel is frequently a valid response option either pre-emptively (e.g., when severe weather is predicted) or during emergency response as the incident becomes stabilized sufficiently to allow emergency decision-makers to identify safe-routes and non-essential personnel.

Controlled Release

- Follow instructions from emergency response personnel to avoid delays

- May be required to travel to a designated off-site location

- Must use the route designated by emergency response personnel

- Linking up with your carpool may not be possible

EO7

Describe the Plant Personnel Accountability System (PPAS).

Personnel Accountability

- ***The Plant Personnel Accountability System (PPAS) is an electronic system that facilitates accountability of plant personnel.***
- Department of Energy/National Nuclear Security Administration (DOE/NNSA) basic workplace safety requirement
- Critical step
  - All sites are subject to this basic safety requirement.
  - Needs to be completed within 30 – 45 minutes.
  - Considered satisfied when:
    - Verified that no one remains inside

Personnel Accountability

- Once at the muster/assembly station:
  - Building warden/supervisor/POC initiates the collection of personnel information
  - Send info to the OC

CNS Plant Personnel Accountability System (PPAS)

Personnel Accountability Check-In

Personnel / Badge Number: 00842669 | Check-In

(please enter personnel / badge number in the box above)

Exit Personnel Accountability

Step 1

Check IN?

Name:	Clark, Sherry E
Badge:	00842669
Site:	Pantex
Assigned Building:	12-015A
Supervisor:	Sanderson, Gregory J

OK   Cancel
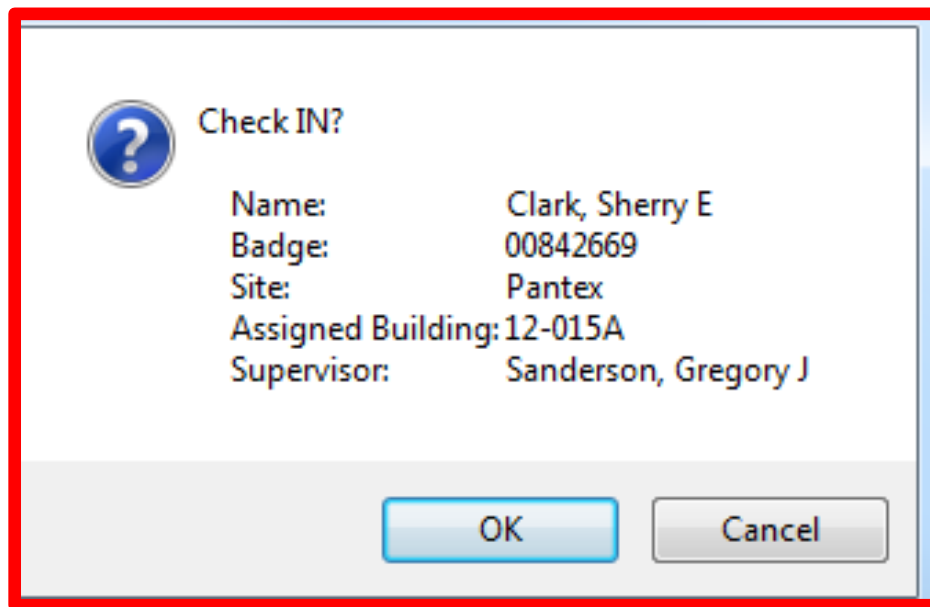
Step 2

Personnel Accountability Check-In

Personnel / Badge Number: 00842669   **Check-In**

CHECK IN COMPLETED for Clark, Sherry E at 4/17/2019 9:59:02 AM

(please enter personnel / badge number in the box above)

Exit Personnel Accountability

Step 3

EO7

Manual Accountability Process

Pantex:

- Contact your immediate supervisor, department administrative assistant or appropriate site representative.

- Reply to a radio roll call (if you are in possession of a radio.

- Contact the OC for accountability only as a last resort.

- All visitors must use the manual accountability process.

Manual Accountability Process

Y-12:

CNS personnel are accounted for through a call-tree process in which supervisors contact immediate employees and determine status of each person. The supervisor contacts his or her manager and provides the status of their organizational personnel. This process continues up through the senior vice president or vice presidents.

EO8

Identify Actions for a Bomb Threat.

Bomb Threat via Telephone…

- Be calm and courteous.

- Listen.

- Do not interrupt the caller.

- Extract basic information from caller and record info.

Written Threat

- Avoid further unnecessary handling.

- Save all materials (envelope, packaging, etc.).

- ***Preserve evidence as effectively as possible to protect things like fingerprints, handwriting, postal marks, and paper.***

- Record method by which threat was received.

- Call the OC to report the threat.

- Provide all requested information to the OC.

- Follow instructions given by the OC or Security.

EO9

Identify Actions

for

Suspicious Package.

Suspicious Package

- Personnel discovering the package should ask other personnel in the immediate area if they can identify the package.

- ***DO NOT MOVE or DISTURB THE ITEM*** or allow others to do so unless they can identify the package.

- If the package is identified, the owner/identifier should stow it away and/or label it appropriately.
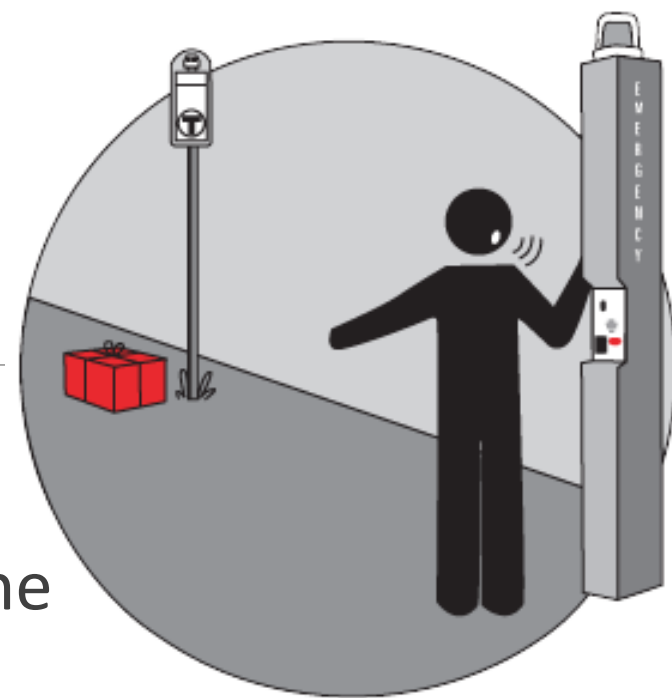
Suspicious Package

- If unidentified in immediate area:
  - Secure the area
  - Notify the Building Manager/Facility Representative
  - Notify all personnel in the building/area and ask them to attempt to identify the package

- If package remains unidentified:
  - Leave package undisturbed
  - Notify OC @ 477-5000 or the Y-12 OC @ (865) 574-7172

EO9

Suspicious Package

- If package is still not identified:
  - Secure classified
  - Evacuate
  - Follow instructions from the OC
  - Do not return to work area until "All Clear" has been given by the OC or emergency responders

EO10

Identify Post Emergency Self-Help Actions.

Priorities

- During extreme events emergency help may not be immediately available.

- Use your judgment and take reasonable actions for your own safety.

- Warn others and communicate available information to others (consider this a duty).

- Remain calm and help others to avoid panic.

Priorities

- Help others to stay safe or render aid to others including aiding the injured as appropriate to your level of training.

- Find shelter and keep yourself away from hazardous conditions.

- Consider multiple routes to receive emergency-related information (PA, telephone, pager, two-way radio, etc.).

Review/Questions

EO1 Identify the Purpose of the Emergency Management Program.

EO2 Describe Employees' Responsibilities.

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