

Emergency Management Initial



Terminal Objective

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

Enabling Objectives

- E01 Identify the Purpose of the Emergency Management Program.
- E02 Describe Employees' Responsibilities.
- E03 Describe the Notification of an Operational Emergency(OE)/Continuity Event Process.
- E04 Explain the Purpose of the Emergency Response Organization (ERO).

Enabling Objectives

- E05 Describe Building Warden/Building Emergency Warden (BEW) Program.
- E06 Define Protective Actions/Protective Measures.
- E07 Identify Actions for a Bomb Threat.
- E08 Identify Actions for a Suspicious Package.
- E09 Identify Post Emergency Self-Help Actions.

EO1

Identify the Purpose of the
Emergency Management Program.

Emergency Management Department **Purpose**

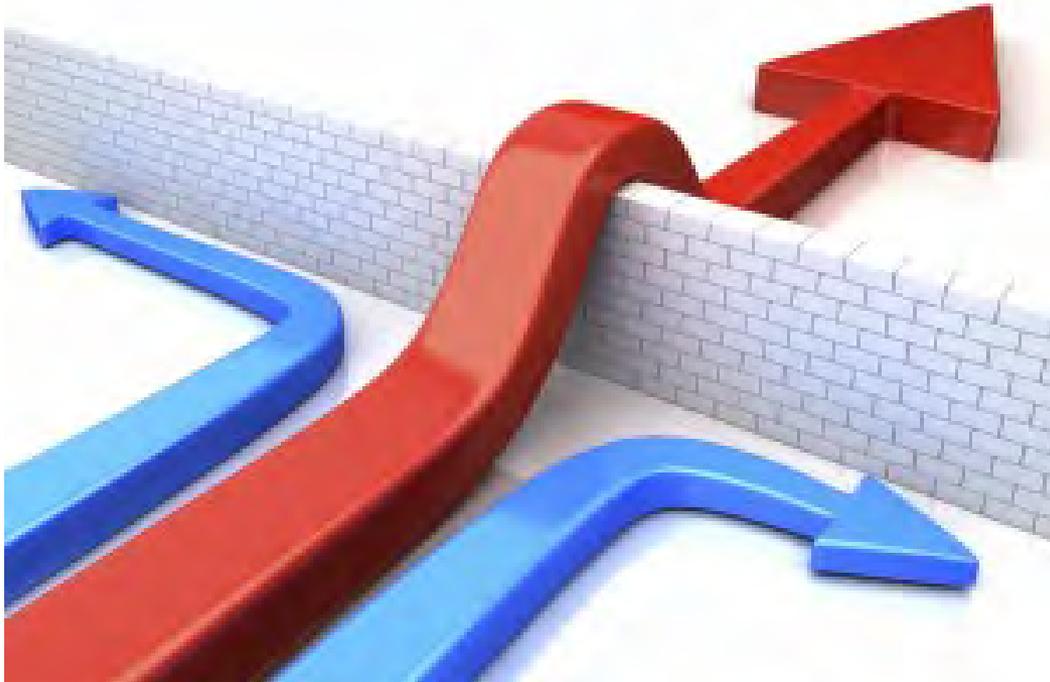
- ***Minimize** the consequences associated with emergencies*
- ***Protect** the health and safety of workers and the public*
- ***Prevent** damage to the environment*
- ***Promote** effective and efficient integration of emergency response assets (local and national levels)*

Operational Emergencies (OEs)

- Emergencies that can affect the plant
- Major unplanned or abnormal events/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.



Continuity of Operations (COOP)



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

Continuity of Operations (COOP)

Three action categorizations under COOP

- Primary Mission Essential Functions (PMEFs)
- Mission Essential Functions (MEFs)
- Essential Support Activities (ESAs)

Please refer to your handout.

Emergency Management Department Essential Functions

PANTEX ESSENTIAL FUNCTIONS		Y-12 ESSENTIAL FUNCTIONS	
PMEFs		PMEFs	
<ol style="list-style-type: none"> 1. Maintain the safety and security of nuclear materials in the Department of Energy Complex at fixed sites and in transit. 2. Respond to a nuclear incident, both domestically and internationally, caused by terrorist activity, natural disaster, or accident, including by mobilizing the resources to support these efforts. 		N/A	
MEFs	ESAs	MEFs	ESAs
<ol style="list-style-type: none"> 1. The Safeguards and Security of nuclear materials. 2. To provide technical assistance to federal agencies regarding threats involving nuclear materials. 3. To provide assistance to State, local, and other federal agencies in response to nuclear/radiological emergencies. 4. To maintain the safety, reliability, and performance of U.S. nuclear weapons (stewardship). 5. To maintain nuclear facilities in a safe, environmentally compliant and cost-effective manner to support national priorities in order to respond to a national emergency. 6. To maintain necessary technical expertise to respond to a national emergency. 	<ol style="list-style-type: none"> 1. Leadership must support continuity planning and assure continuity of essential functions. 2. Staff must be trained/cross-trained to perform duties in a continuity environment. 3. Orders of Succession and Delegations of Authority must be developed for key/essential personnel. 4. Essential records (necessary procedures and documentation) must be available and accessible at an off-site location. 5. Facilities must be adequate, with separate locations, to assure execution of essential functions. 6. If facilities are heavily affected, command and control can be devolved to another location. 7. Communications (systems and technology) must be interoperable, robust, and reliable. 	<ol style="list-style-type: none"> 1. Maintain the safety and security of highly enriched uranium and other strategic materials, associated facilities, and inventories. (NEF 3/DOE PMEF 1) 2. Maintain the capability to deploy the DOE Region 2 Radiological Assistance Program in accordance with the requirements in DOE O 153.1, <i>Departmental Radiological Emergency Response Assets</i>. (NEF 6/DOE PMEF 4) 	<ol style="list-style-type: none"> 1. Ensure availability of information technology (IT). 2. Ensure availability of communications systems. 3. Ensure support for facility operations/access. 4. Provide accountability of human capital. 5. Maintain the capability to respond to DOE operational emergencies.

EO2

Describe Employees' Responsibilities.

Employees' Responsibilities

- Report hazards/abnormal events to supervision and/or:
 - Pantex=Operations Center (OC) @ (806) 477-5000
 - Y-12= (landline) 911 or (cell phone) Plant Shift Supervisor (PSS) @ (865) 574-7172
- Be familiar with Protective Actions
- Take reasonable actions to ensure your own safety
- Spread the word to others around you

Employees' Responsibilities

- Lend assistance to others
- Follow directions provided by emergency response personnel or as communicated via:
 - Public address (PA) announcement
 - Pager
 - Two-way radio
 - Pantex Outdoor Warning Sirens
 - Y-12 Emergency Notification System (ENS)

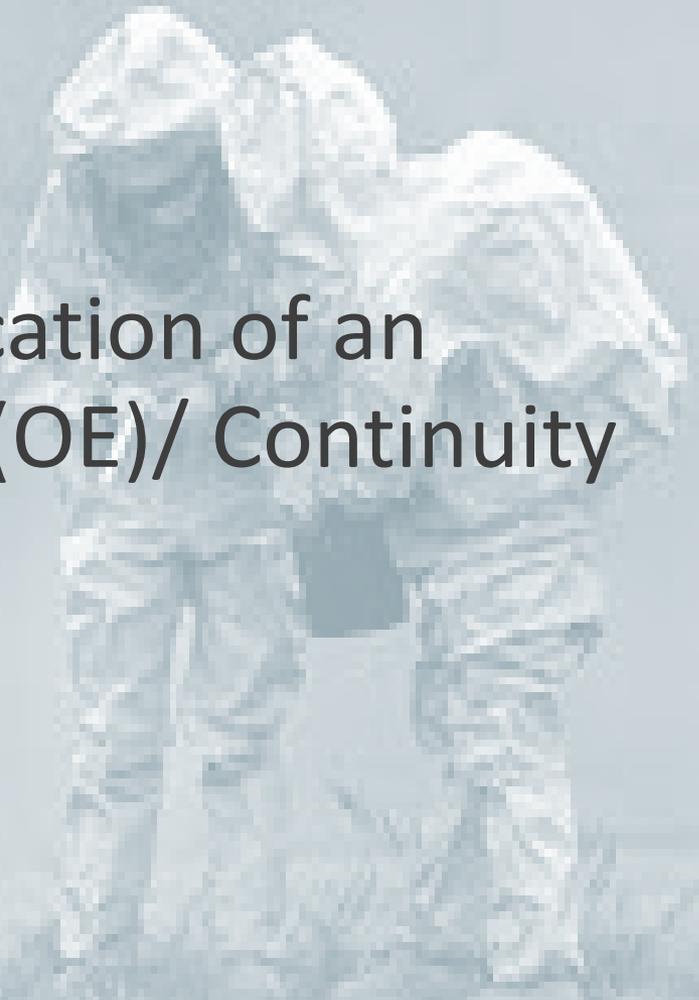
Employees' Responsibilities

- *Take appropriate actions to preserve conditions as long as they **DO NOT** interfere with personal safety.*
- If you are working outdoors or preparing to do so with a storm approaching, contact the OC/PSS for weather warning confirmation.

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.

EO3

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



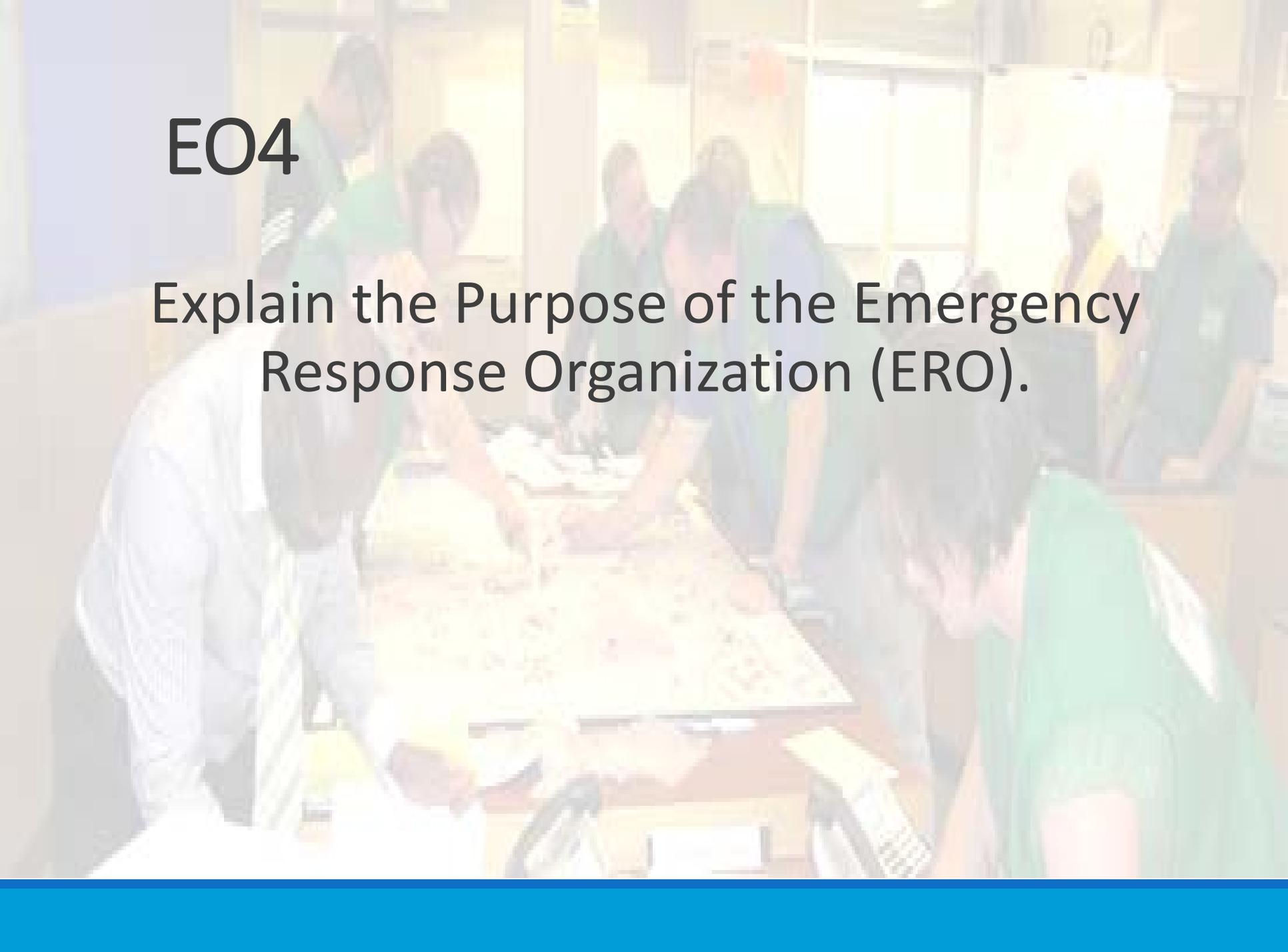
Notification can come in different forms:

- Alarms
- Communicator System
- Computer/Intranet
- Fax Machines
- Instant Messenger
- Pantex Outdoor Warning System
- Paging Systems
- Public Announcement (PA) System
- Telephone
- Two-Way Radio
- Y-12 Emergency Notification System (ENS)

Operations Center (OC)/ Plant Shift Supervisor (PSS)

- Focal point for emergency event response 24/7/365
- Recalls the Emergency Response Organization (ERO)
- Notifies off-site agencies if necessary



A group of approximately ten people are gathered around a large conference table in a meeting room. They are looking at a large map or document spread across the table. Some are pointing at specific areas on the map. The room has large windows in the background, and there are whiteboards and other office equipment visible. The overall atmosphere is one of collaborative work and discussion.

E04

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

Emergency Response Organization (ERO)

Team of people responsible for the management, response, mitigation, and recovery from emergency and continuity events.



E05

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/
Protective Measures.

Protective Actions/Measures

- *Designed to protect the health and safety of workers and the public*
- Employees are required to implement protective actions when notified by:
 - OC/PSS Office
 - 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

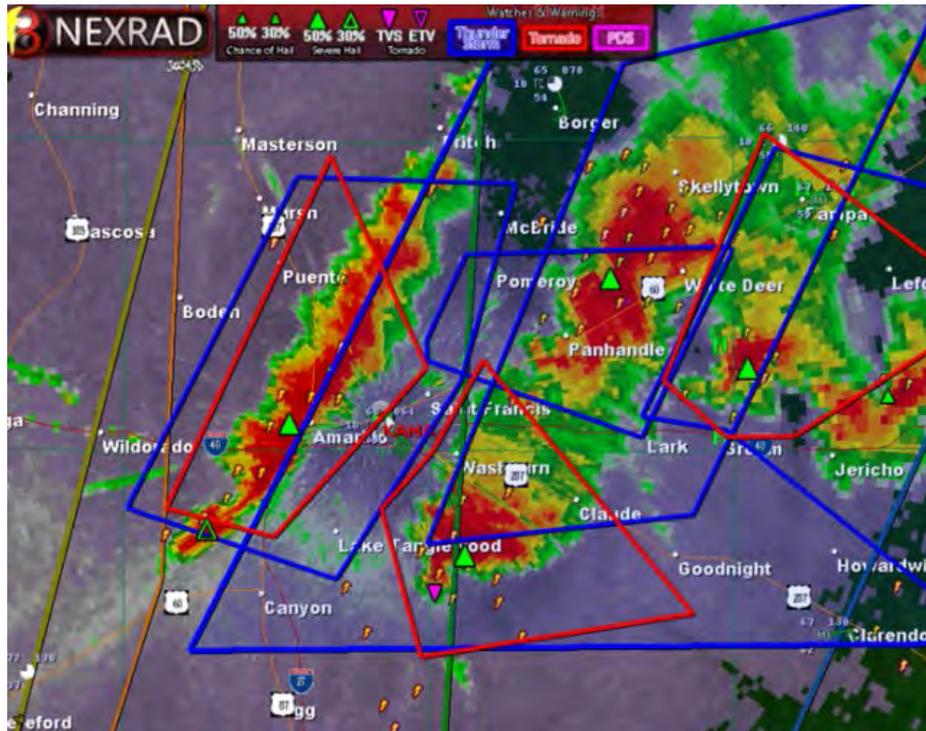
PanTEX Protective Actions

- Avoid the Area
- Shelter for Severe Weather
- Shelter for Hazardous Material Release
- Shelter for Security Event
- Evacuation
 - Personnel Accountability

Avoid the Area

- Keeps personnel away from a potentially hazardous area until emergency responders can evaluate the event.
- Personnel in **affected area** are to:
 - Discontinue activities in progress.
 - Implement appropriate protective actions.
- All other personnel are to:
 - Avoid the area of the potential emergency condition.
 - Remain alert to take additional protective actions that may be announced.

Shelter for Severe Weather



- Protect personnel from the potential impact of a tornado or other weather phenomena.
- Once announced, perform the following actions:
 - If time permits, move to the best available severe weather shelter location immediately.

Shelter for Severe Weather

- If working outdoors or while traveling in a vehicle and a tornado is approaching:
 - Stop work.
 - Seek out the best available shelter in the immediate area of your location.
- The best place to seek shelter is a preferred shelter location.



Shelter for Severe Weather

All Weather Notifications—please see handout.



PANTEX PROTECTIVE ACTIONS

PRODUCT	ANNOUNCEMENT	WHAT IT MEANS	YOU SHOULD
LIGHTNING WARNINGS	“Lightning Warnings are now in effect.”	Lightning is within 35 miles of the plant or thunder is heard and reported to the OC.	Get ready to stop work and put things in a safe and stable configuration.
LIGHTNING WARNINGS WITH PERSONNEL SAFETY CONDITIONS	“Personnel Safety Conditions for Lightning are now in effect.”	Lightning is within 10 miles of the Pantex Plant.	Plant personnel should put affected work in a safe and stable condition. Remain indoors if possible, stop outside work, avoid electrical equipment and hard wired phones. If driving conditions get bad, slow down and/or get safely off the road.
SEVERE WEATHER WARNING FOR HIGH WINDS	“A Severe Weather Warning for High Wind is now in effect.”	High winds are forecast to the Pantex Plant.	Stop elevated work, check with supervision and/or Industrial Safety and Hygiene about any outside work.
SEVERE WEATHER WARNING WITH PERSONNEL SAFETY CONDITIONS FOR HIGH WINDS	“A Severe Weather Warning with Personnel Safety Conditions for High Wind is now in effect.”	Winds 50 mph or greater are sustained or gusting at or near the Pantex Plant.	Plant personnel should remain indoors.
SEVERE THUNDERSTORM WARNING	“A Severe Thunderstorm Warning is in effect.”	A Severe Thunderstorm Warning has been issued for Carson County or any of the eight surrounding counties with the storm moving towards Pantex. The storm has the potential for high winds, heavy rainfall, large hail, and/or possible tornadoes.	Plant personnel should remain indoors.

FLASH FLOOD WATCH	“The National Weather Service has issued a Flash Flood Watch for an area including the Pantex Plant.”	Conditions are favorable for flooding to develop. NWS has issued a Flash Flood Watch for Carson County which could affect the Pantex Plant.	Stay alert to changing weather conditions. Use caution when going outdoors.
FLASH FLOOD WARNING	“The National Weather Service has issued a Flash Flood Warning for an area including the Pantex Plant.”	Flash Flooding is occurring or imminent. NWS has issued a Flash Flood Warning for Carson County which could affect the Pantex Plant.	Do not walk or drive over flooded roadways and areas. Use caution when driving.
TORNADO WARNING	“A Tornado Warning is in effect. All plant personnel seek shelter from severe weather immediately. Cease operations and transportation activities. Place materials in a safe and stable configuration. Keep all bay & cell doors closed except for emergency use.”	A Tornado Warning has been issued for Carson County or any of the eight surrounding counties with the storm’s track moving towards Pantex. A tornado, rotating wall cloud, or funnel cloud has been spotted.	All plant personnel should seek shelter in the best available location immediately. Stay away from windows, exterior doors, and exterior walls.
CANCELLATION OF WARNING	“Warning Type is/are cancelled.”	The condition that prompted the warning has now dissipated or passed and not reoccurred for 30 minutes.	Resume normal operations.

Shelter for Hazardous Material Release



Goal is to minimize the exposure of the threatened personnel to the dangerous chemical or radiological material(s) by using a structure and its indoor atmosphere to temporarily separate people from a hazardous outdoor atmosphere.



Shelter for Hazardous Material Release

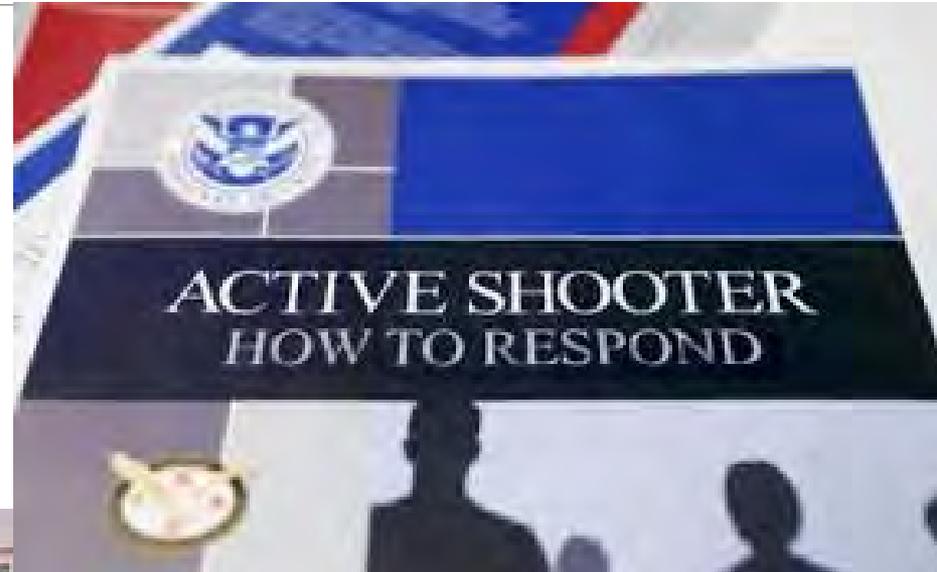
- Stop work and attempt to secure classified materials/systems/repositories.
- Go inside and/or stay inside.
- If possible, turn off air conditioning etc.
- Close as many interior windows and doors as possible.
- Take advanced measures to reduce infiltration.
- Refrain from eating, drinking, smoking, 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 event.
- If caught outside, you can create a make-shift respirator.

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 shooter 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 5000, to report suspicious personnel or activities.

Building Evacuation

- Use safest and fastest route possible
- Go to the muster station
- Follow required accountability
- **Building warden/supervisor/POC** provide information to the OC at ext. 5000 or Fax
- Follow directions/instructions from emergency responders, supervisors or the OC
- Do not re-enter an evacuated building

Zone/Site Evacuation

- Follow instructions/directions from emergency response personnel
- May be required to travel to a designated evacuation destination/off-site location
 - Using personal or company vehicles, off-site agency buses



Personnel Accountability

- 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

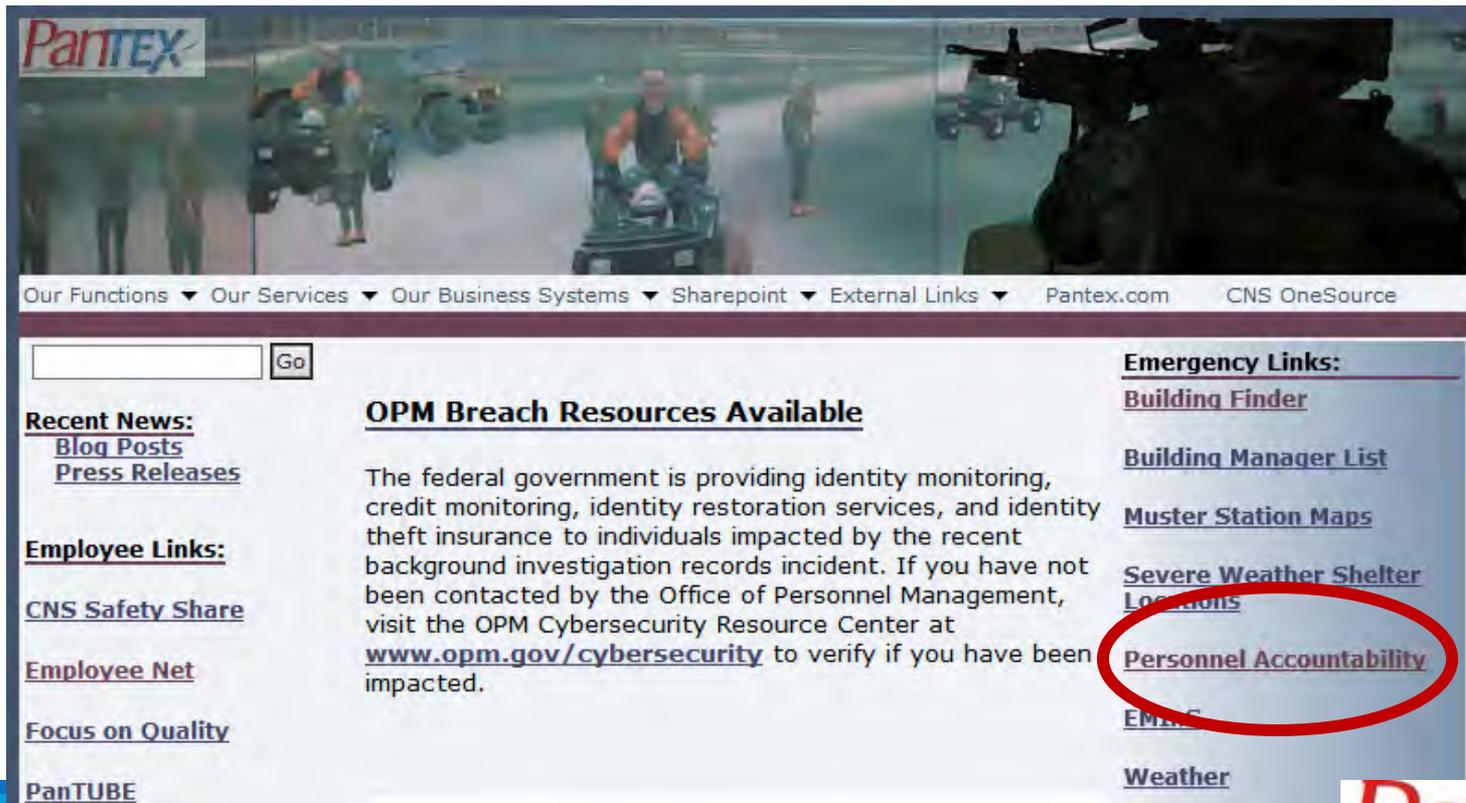
Personnel Accountability

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



Accountability With A Computer

Personnel Accountability System (PAS)



The screenshot shows the Pantex website interface. At the top, there is a navigation bar with links: "Our Functions", "Our Services", "Our Business Systems", "Sharepoint", "External Links", "Pantex.com", and "CNS OneSource". Below the navigation bar is a search box with a "Go" button. The main content area is divided into several sections:

- Recent News:** Includes links for "Blog Posts" and "Press Releases".
- Employee Links:** Includes links for "CNS Safety Share", "Employee Net", "Focus on Quality", and "PanTUBE".
- OPM Breach Resources Available:** A section with a heading and a paragraph of text. The text states: "The federal government is providing identity monitoring, credit monitoring, identity restoration services, and identity theft insurance to individuals impacted by the recent background investigation records incident. If you have not been contacted by the Office of Personnel Management, visit the OPM Cybersecurity Resource Center at www.opm.gov/cybersecurity to verify if you have been impacted."
- Emergency Links:** A list of links including "Building Finder", "Building Manager List", "Muster Station Maps", "Severe Weather Shelter Locations", "Personnel Accountability" (circled in red), "EMSG", and "Weather".

Personnel Accountability

BADGE NUMBER:

99999

Enter

PLEASE ENTER BADGE NUMBER IN THE BOX ABOVE

Exit Personnel Accountability

v1.0.1

Personnel Accountability

99999 – John Doe

IS THIS THE CORRECT BADGE?

YES

NO

Exit Personnel Accountability

v1.0.1

PanTEX

Accountability Without A Computer

- Contact your immediate **supervisor 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.

Y12 Protective Actions

- Sheltering in Place
- Take Cover
- Lock Down
- Curfew
- Active Shooter
- Evacuation
- Warning Signals

Sheltering-In-Place

- Primary protective action in response to most hazardous material releases.
 - Go indoors immediately.
 - Close all windows and doors.
 - Turn off all sources of outdoor air i.e. fans, A/C
 - Attempt to minimize outside air infiltration
 - Shut down equipment and processes as necessary
 - Remain indoors
 - Listen for additional information on the ENS/PA

Take Cover & Lock Down

- Take Cover
 - Seek refuge in a strong, sheltered part of building for weather warnings.
 - Notifications via ENS/PA, pagers and radios.
- Lock Down
 - Population control measure designed to be used in a security situation.
 - Notifications via ENS/PA and radios.

Curfew & Active Shooter

- Curfew
 - Population control which restricts the site population in the announced designated areas to remain within their building or to enter the nearest building
 - Notifications via ENS/PA and radios
- Active Shooter
 - There is a hostile threat in the building or area specified by the PSS.

Active Shooter Cont.

- Take the following actions:
 - Evacuate if safe escape path exists
 - Leave personal belongings behind
 - Keep hands visible
 - Prevent individuals from entering an area where an Active Shooter may be
 - Follow instructions of Security or Police Officers
 - Call 911 (landline) or PSS (865) 574-7172 (cell phone) provide as much info as possible

Active Shooter Cont.

- Hide out if evacuation is not possible
- Hide in an area out of the shooter's view
- Lock and barricade the door
- Close blinds
- Turn off radio, computers, etc.
- Silence your cell phone and/or pager
- Hide behind large items (i.e. cabinets, desks)
- Remain quiet

Take action **ONLY** as a last resort

Evacuation



- To Onsite Location
 - Certain emergency conditions (i.e. fire, security threat, CASS, etc.) may require onsite personnel to be relocated
 - Direction provided by the PSS over the ENS/PA
 - Assembly stations are the gathering points
- To Offsite Location
 - Direction provided by the PSS over the ENS/PA
 - Generally by individually owned vehicles
 - Reassembly stations will be determined on site conditions

Warning Signals

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



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.**

Criticality Accident Alarm System (CAAS) Evacuation

- **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

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.**

E07

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

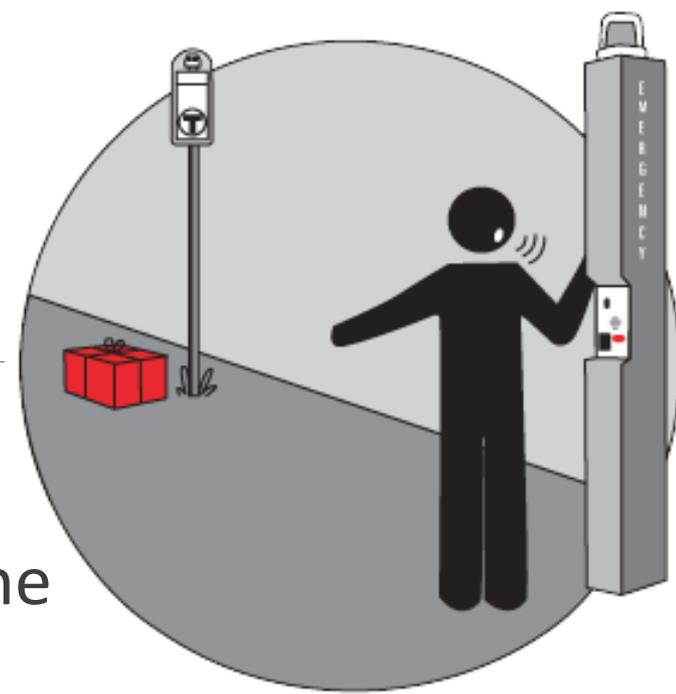
- Avoid further unnecessary handling.
- Save all materials (envelope, packaging, etc.).
- **Preserve evidence as effectively as possible to protect things like fingerprints, handwriting, postal marks, and paper.**
- Record method by which threat was received.
- Call the OC/PSS to report the threat.
- Provide all requested information to the OC/PSS.
- Follow instructions given by the OC/PSS or Security.

E08

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 @ 5000 or the PSS @ (865) 574-7172



Suspicious Package

- If package is still not identified:
 - Stop work
 - Secure classified
 - Evacuate
 - Follow instructions from the OC/PSS
 - Leave doors, drawers and cabinets open



- Do not return to work area until “**All Clear**” has been given by the OC/PSS or emergency responders

E09

**Identify Post Emergency Self-Help
Actions.**



Priorities



- 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.).

