

Emergency Management



**Course No.
141.01
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- A. Emergency Management is important to our health and safety, as we can see by recent industrial catastrophes.** Here are some recent catastrophes.

9-11, Chernobyl, Oklahoma City Bombing, Natural Disasters (OK City Tornado 99)

Pantex has also had incidents:

- Tritium release in 1989
- Explosion in 1977

Pantex Emergency Management Plan is the basic “umbrella” document in the defense-in-depth concept for ensuring security, the safety and health of plant personnel and the public, and for protecting property and the environment in the event of an Operational Emergency.

PANTEX EMERGENCY MANAGEMENT PROGRAM IS IN PLACE TO PROTECT PEOPLE, PROPERTY, AND THE ENVIRONMENT

1. State Terminal Objective:

Upon completion of this course, the trainee will state the purpose of the Pantex Plant Emergency Management Plan, Emergency Management Program, and the personal requirements necessary to support it.

2. State Enabling Objectives:

- EO1: State the reason for having the Pantex Plant Emergency Plan.
- EO2: Identify the operating objectives of the Emergency Response Organization.
- EO3: Describe the actions and responsibilities required to support reporting abnormal events or conditions and operational emergencies.
- EO4: Define the announcements that are precursors to additional potential weather warnings.
- EO5: Identify actions and responsibilities when notified to Avoid the Area.
- EO6: Identify actions and responsibilities when notified to Seek Shelter from Severe Weather.
- EO7: Identify actions and responsibilities when notified to Shelter in Place for Hazardous Material Release.

- E08: Identify the principles, conditions, and responses associated with an evacuation from a particular facility/building, zone or the site, and identify the appropriate muster station using the Muster Station Map.
- E09: Define the purpose of a Security Lock-Down/Alert.
- E10: Describe the actions and responsibilities associated with the Personnel Accountability Program.

B. Emergency Management Plan & Program Overview (EO1)

EO1: State the purpose of the Pantex Plant Emergency Plan (PPEP).

The Pantex Plant Hazardous Materials Program Emergency Plan, also known as the Pantex Plant Emergency Plan (PPEP), has been developed in accordance with the requirements identified in DOE Order 151.1C, *Comprehensive Emergency Management System*, to document the Pantex Emergency Management Program and describe provisions for response to an Operational Emergency at Pantex.

The purpose of the PPEP is to provide the DOE/NNSA, specifically PXSO, and B&W Pantex, with an effective and efficient Emergency Management Program that develops and maintains the capabilities necessary to create or produce acceptable levels of protection for the health and safety of workers, responders, the public, the environment, and the national security, in the event of an Operational Emergency at the Pantex Plant.

The operational use of the PPEP is primarily in the context of an emergency response overview plan that documents the Pantex Emergency Management Program in terms of its key activities (i.e., emergency planning, emergency preparedness, emergency response, recovery, and readiness assurance). In addition, the PPEP fulfills other specified emergency plan requirements, to include:

- Describing the provisions or preparatory measures for response to an Operational Emergency at the Pantex Plant.
- Complying with the requirements of the National Response Framework (NRF) and the National Incident Management System (NIMS).
- Describing the integration and coordination of the Pantex Emergency Management Program with the DOE/NNSA Integrated Safety Management System (ISMS).
- Identifying roles, responsibilities, and requirements associated with program administration, the Emergency Response Organization (ERO), individual positions, operations, and interfaces

EO2: Operating objectives of the Emergency Response Organization (ERO).

The ERO, a structured organization with overall responsibility for initial and ongoing emergency response and mitigation, has been established for the Pantex Plant, with responsibility for maintaining effective control of an event/incident. If appropriate, the ERO will integrate emergency response activities with those of local agencies and organizations that provide on-site response services. An adequate number of experienced and trained personnel, including designated alternates, are available on demand for timely and effective performance of ERO functions.

The ERO structure within the EOC is organized into functional groups: Executive Teams Consequence Assessment Team (CAT), Logistics Group, Operations Group, Emergency Public Information (EPI) Team, Recovery Team, and the Emergency Communication Team. B&W Pantex has established an ERO to oversee the tactical response and provide strategic command and control for an Operational Emergency

EO3 Describe the actions and responsibilities required to support reporting out-of-the-ordinary conditions, events, and occurrences.

General Duty Statement

It is the general duty of all Pantex Plant personnel, regardless of their employer or contracting tier, to take appropriate actions when any unsafe or out-of-the-ordinary, adverse condition has been discovered or reported at the plant.

These duties include, but are not limited to:

- Take appropriate actions to assure plant personnel safety.
- Warn other personnel in the immediate area of an unsafe condition.
- Take actions to isolate the unsafe condition, if appropriate.
- Notify your supervisor of any unsafe condition and contact the appropriate plant emergency services function:
 - **Emergency Services Dispatch Center for Fire or Medical Emergency– extension 3333**
 - **Operations Center – extension 5000**
 - **Radiation Safety – extension 5555**
- Assist coworkers and other personnel with implementation of protective actions, especially those persons who have special needs, if necessary.
- Follow directions provided by emergency response personnel or as communicated by:
 - Public Address (PA) announcement
 - Alpha-numeric page
 - Two-way radio
 - Outdoor warning sirens activation (personnel should seek additional information as to whether the sirens were activated for severe weather or a hazardous materials/radiological release).

While the above-mentioned notification systems should provide warning to the vast majority of plant personnel and visitors, each individual must exercise common sense and general safety awareness. For example, if you are working outdoors or preparing to work outdoors with a storm approaching and you are not aware of any weather warnings, contact your

supervisor or the Operations Center, extension 5000, to confirm any weather warnings that might be in effect at the current time. Safety is everyone's responsibility.

EO4: Define the announcements that are precursors to additional potential weather warnings.

Severe weather is a fact of life in the Texas Panhandle. While tornados generate an enhanced focus with the implementation of the Seek Shelter from Severe Weather protective action, other hazards associated with severe weather can be just as dangerous and deadly. Severe thunderstorms, lightning, heavy rains, high winds, and hail can pose significant safety hazards to personnel.

The following warnings (except for the tornado warning) have no specific general plant personnel protective actions associated with them, beyond providing a precursor to additional potential weather warnings. However, all personnel should use caution when going/working outdoors and contact your supervisor for further direction.

- “Lightning Warnings are in effect” - Lightning strike within 35 miles of the Pantex Plant.
- “Lightning Warnings with Personnel Safety Conditions are in effect” - Lightning strike within 10 miles of the Pantex Plant.
- “Severe Weather Warning for High Winds is in effect” - The National Weather Service (NWS) issues a “High Wind Warning” for an area that includes the Pantex Plant.
- “A Severe Weather Warning with Personnel Safety Conditions for High Winds is in effect” - weather information source(s) indicates 50+ mph sustained or gust winds at or near the Pantex Plant.
- “The National Weather Service has issued a Severe Thunderstorm **Watch* - Plant personnel should remain alert for possible severe weather warnings.” The NWS issues a Severe Thunderstorm Watch for Carson County.
- “A Severe Thunderstorm **Warning* is in effect”. All plant personnel should remain indoors - The NWS issues a “Severe Thunderstorm Warning” for Carson County or any of the eight surrounding counties.
- “The National Weather Service has issued a Tornado **Watch*. Plant personnel should remain alert for possible severe weather warnings.” - The NWS issues a “Tornado Watch” for Carson County.
- “A Tornado **Warning* is in effect. All plant personnel Seek Shelter from Severe Weather immediately. Cease operations, cease transportation activities, and place materials in a safe and stable configuration.” - The NWS issues a Tornado Warning for Carson County or any of the eight surrounding counties or report of a tornado, funnel cloud, or rotating wall cloud near the Pantex Plant by Plant personnel. (Seek Shelter from Severe Weather procedures will be discussed in the protective actions section.)

Definitions of NWS warning versus watch may need to be explained.

Watch - A watch is used when the risk of a hazardous weather has increased significantly, but its occurrence, location, and/or timing is still uncertain. It is intended to provide enough lead time so that those who need to set their plans in motion can do so.

Warning - A warning is issued when hazardous weather is occurring, is imminent, or has a very high probability of occurring. A warning is used for conditions posing a threat to life or property.

EO5: Identify actions and responsibilities when notified to Avoid the Area.

Avoid the Area is announced as an initial protective action to keep plant personnel away from a potential abnormal event or emergency condition during the initial emergency response phase.

Response:

- Stop work.
- Implement appropriate protective actions (may include facility/operations-specific procedures).
- Avoid the area of the potential emergency condition.
- Remain alert to implement additional protective actions.

EO6: Identify actions and responsibilities when notified to Seek Shelter from Severe Weather.

The Seek Shelter from Severe Weather protective action is designed to put all plant personnel in the safest location available, in the shortest amount of time, given the unpredictable nature and rapid onset of severe weather that is currently producing, or has the potential to produce, a tornado. Personnel should be aware of the severe weather sheltering location for the building where they typically work. If personnel do not know the severe weather shelter location, they should ask a supervisor or Building Manager or Facility Representative for this information.

Response:

- Stop work.
- Attempt to secure classified materials/systems/repositories, if it can be done swiftly and safely.
- If time permits, move to the best available severe weather shelter location immediately. (If time permits, move to a more substantial building. However, it is safer to go to the center of a modular trailer than be caught in a tornado while outdoors trying to get to a more substantial building.)
- If a tornado is imminent and you are in the safest location available:
 - Seek interior walls in your building where possible, they may provide some degree of protection.
 - Protect yourself under a sturdy object, such as a heavy table or under stairs. Hold on to the sturdiest object available.
 - Assume a tornado protection position (on your knees curled into a ball position with your hands over your head).

- Remain at the severe weather shelter location until given the all clear or are otherwise directed by emergency response personnel.
- If working outdoors or while traveling in a vehicle:
 - Stop work.
 - Seek out the best available shelter in the immediate area of your location.
 - If time does not permit movement to shelter, abandon the vehicle, lie flat in a nearby ditch or depression, and cover your head with your hands. Be aware of potential flooding.

EO7: Identify actions and responsibilities when notified to Shelter-in-Place for Hazardous Material Release.

The goal of Shelter-in-Place for Hazardous Material Release protection action is to minimize the exposure of the threatened personnel to the dangerous chemical or radiological material(s). Shelter-in-Place for Hazardous Material Release uses a structure and its indoor atmosphere to temporarily separate people from a hazardous outdoor atmosphere. Personnel may still be in the endangered area, but will be protected by the barrier created by the shelter and the short-term protection of its indoor atmosphere.

Response:

- Stop work and attempt to secure classified materials/systems/repositories, if it can be done swiftly and safely.
- Go inside or stay inside.
- Close windows and doors while moving to a shelter-in-place location (typically an interior room within a building).
- Refrain from eating, drinking, smoking, applying cosmetics, using tobacco products, or chewing gum. Individuals required to take prescription medication should take the medications, if necessary, but are required to notify the Operations Center and Occupational Medicine Program (OMP) following release from Shelter-in-Place for Hazardous Material Release.

NOTE: In some facilities, shutting down the air handling systems for specific processes may create more of a hazard than leaving the air handling system running.

- Turn off air conditioning, heating, and air handling units that draw in outside air. Close vents if possible. Review process/facility-specific procedures to determine the appropriateness of turning off the air handling system for specific processes.
- Take advanced measures to reduce infiltration (i.e., placing plastic sheeting over windows and vents, applying tape over electrical outlets, around doors, and other openings to reduce the air flow as much as possible).
- If personnel attempt to enter the building while Shelter-in-Place for Hazardous Material Release has been implemented, allow them to come in. Do not force them to remain outside in dangerous conditions; however, ask potentially contaminated personnel to remain segregated to avoid potential cross-contamination of sheltered personnel.

- Personnel in vehicles should roll up the windows and close vents that draw in outside air, including heaters and air-conditioners, then proceed to a safe area that is upwind from the event.
- Remain at the shelter-in-place location until given the all clear or otherwise directed by emergency response personnel.

EO8: Identify the principles, conditions, and responses associated with an evacuation from a particular facility/building, zone, or the site, and identify the appropriate muster station using the Muster Station Map.

Evacuation of personnel from a hazardous area may be initiated for several emergency or potentially hazardous situations. A hazardous materials or radiological emergency, security situation, or severe weather event (i.e., post-tornado impact) are examples of emergency conditions where a plant evacuation may be implemented.

Evacuation has long been used as a means to move personnel away from danger. If evacuation is ordered, emergency responders will make every effort to initiate the protective action in a controlled manner to facilitate rapid implementation. Personnel must follow the instructions provided to avoid potential delays in evacuation.

Evacuation instructions will specify the area, route of evacuation, and evacuation destination (i.e., evacuation relocation site) to the greatest extent possible. The destination of evacuated personnel may be a muster station, an alternate location on the plant, or an off-site location. Personnel must report to the designated evacuation destination to facilitate personnel accountability.

Response:

- Stop work.
- Attempt to secure classified materials/systems/repositories, if it can be done swiftly and safely.
- Evacuate the building using the safest and fastest route possible, avoiding the area of the emergency condition to the greatest extent possible.
- Travel, using the designated route, to the evacuation destination designated by emergency responders (may be a muster station, an alternate on-site location, or an off-site location).
- First person to arrive at the muster station initiates the personnel roster (PX-970, if roster unavailable, use of any sheet of paper is acceptable) and calls the Operations Center at extension 5000 to identify the muster station location.
- Remain at the evacuation destination until given the all clear or otherwise directed by emergency response personnel or other competent authority.

Building or facility evacuation may be required when emergency conditions or alarms occur in an individual building or facility. Personnel must evacuate the building and assemble at a designated muster station. These muster stations are located at or near

buildings/facilities that are regularly occupied (Muster Station Maps are located on the Pantex Plant Intranet, under Quick Links).

The purpose of using designated muster stations is two-fold:

- Muster stations have telephones and a PX-970, Muster Station Roster, to provide a communications and accountability capability in an emergency.
- The use of designated muster stations provides emergency responders automatic information on the probable location of evacuated personnel.

NOTE: Personnel that are located within Zone 12 South Material Access Area (MAA) should respond according to MNL-00068. Personnel that are not in Zone 12 South MAA should evacuate from the affected buildings/facilities to the appropriate muster station during events.

NOTE: The Fire Department and Fire Protection Engineering Departments are responsible for defining and enforcing the National Fire Protection Association (NFPA) Life Safety Code regarding egress from facilities.

Building or facility evacuation warning systems include:

- Fire alarm.
- Radiation Alarm Monitoring System (RAMS) tritium alarm.
- Notification of a hazardous materials spill in a facility.
- Direction from emergency response personnel to evacuate to a muster station.
- Other emergency condition located in a facility.

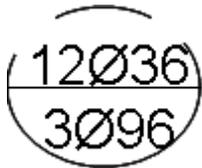
Response

- Stop work.
- Attempt to secure classified materials/systems/repositories, if it can be done swiftly and safely.
- Evacuate the building using the safest and fastest route possible, avoiding the area of the emergency condition to the greatest extent possible.
- Travel to an assigned muster station or other suitable location as determined by the Incident Command, preferably a location upwind from the emergency condition.
- Follow directions of SPOs, firefighters, other emergency responders, or supervisors.
- Contact the Operations Center at extension 5000, advising the Plant Shift Superintendent (PSS) of the emergency condition, evacuated location, any emergency assistance required (i.e., injuries), any unaccounted for personnel from the evacuated location, and any other pertinent information.
- Follow the instructions posted or provided by the PSS, SPOs, firefighters, other emergency responders, or supervisors.
- For tritium alarms, contact Radiation Safety at extension 5555.
- First person to arrive at the muster station initiates the personnel roster (PX-970, if roster unavailable, use of any sheet of paper is acceptable) and calls the Operations Center at extension 5000 to identify the muster station location.

- Remain at the muster station until given the all clear or otherwise directed by emergency response personnel or other competent authority.

Remember that muster stations are the preferred locations for evacuees from individual buildings/facilities. However, evacuation to an alternate assembly location away from the emergency event is the key, regardless of the assembly location. If the route to the muster station or the muster station, itself, appears to be unsafe, use judgment and keep moving to a safe muster station or alternate location. Also the use of the PX-970, Muster Station Roster, while preferred, is not required to account for personnel. Use of blank paper or other writing materials is acceptable as an alternative to the PX-970, if the form is not readily available.

Muster Station Maps are posted in each building. These maps identify the building number and the associated muster station(s) in the ledger on the right hand side of the map. The muster station(s) is identified on the map with a circle and numbers.



The top number is the building or ramp number (ex. 12-R-2), the bottom number is the phone number at that muster station and should be given to the Operations Center when you call.

Response:

- Stop work.
- Secure all classified material and electrical devices, if time permits.
- Evacuate the building by the safest and fastest route possible.
- Proceed to the assigned muster station as referenced on the map
- If assigned muster station is not in a safe location, proceed to another muster station.
- First person to arrive at the muster station initiates the personnel roster (PX-970, if roster unavailable, use of any sheet of paper is acceptable).
- First person to arrive at the muster station calls the Operations Center at extension 5000 to identify muster station location. If you notice any personnel missing, report it to the Operations Center.

EO9: Identify the purpose of a Security Lock-Down/Alert.

A Security Lock-Down/Alert is a series of protective actions used to minimize the exposure of plant personnel and secure special materials and information from an ongoing or potential security event. These protective actions may be implemented solely or in combination with other actions to provide the maximum level of protection for the specific security-related event. Security Lock-Down/Alert is event specific. Plant personnel must pay close attention to announcements and directives from emergency responders and implement all actions as directed.

NOTE: Personnel should review MNL-00068 and P10-1101 for specific protective actions related to a security event for Manufacturing and Applied Technology facilities and operations.

Response

Unlike other protective actions, security protective actions may include one or several different actions based on the specific event. As such, the following is a list of potential actions that plant personnel may be required to implement individually or in combination:

- Stop work.
- Secure classified materials/systems/repositories.
- Report to your normal work location for communication from your supervisor.
- Initiate personnel and/or material accountability.
- Restrict movement between security zones (may impact one zone or the entire plant).
- Restrict movement in an affected zone or the entire plant.
- Deny access to facilities in the affected zone or the entire plant.
- Cease operations, cease transportation activities, and place materials in a safe and stable configuration.
- Evacuate a building/facility, zone, or the entire plant.
- Shelter-in-Place for Hazardous Material Release applied to a building/facility, zone, or the entire plant.

EO10: Identify the actions and responsibilities associated with the Personnel Accountability Program

The Emergency Management Department has established a procedure to account for Plant personnel, subcontractors, and visitors in the event of an emergency, drill, or upon request. **Do not account for anyone other than yourself.**

Personnel accountability procedures are initiated when an event has occurred with the potential for missing and unaccounted for personnel.

All personnel are required to account for themselves during personnel accountability by performing the following:

From an **unclassified computer**, open the Pantex Intranet homepage.

- Click on the Quick Links Personnel Accountability link
- Enter badge number
- Confirm badge number
- Allow others to account for themselves
- Exit the Personnel Accountability System (PAS)

From a classified computer, through the mainframe.

- Select option "P"
- Enter PAS Code of 7777
- Enter badge number
- Allow others to account for themselves
- Exit the PAS

When unable to access a computer, or the network is inoperable:

- Contact immediate supervisor, department or division secretary.
- Contact the Operations Center at extension 5000 as a last resort.