



U.S. DEPARTMENT OF  
**ENERGY**

OFFICE OF  
**ENVIRONMENTAL  
MANAGEMENT**

# West Valley Demonstration Project Emergency Preparedness

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**Quarterly Public Meeting**

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# Objective

The West Valley Demonstration Project's Emergency Management Program provides a plan of action to be followed by all personnel in the event of any operational, civil, natural phenomenon, or security occurrence in order to mitigate such emergencies in the most expeditious manner with minimal impact to employees, the public, the environment, property, or facilities.



Full-scale Emergency Exercise (2019) in which employees were relocated to a pre-determined safe area

# Program Compliance

- The WVDP's Emergency Management Implementing Procedures (EMIPs) and Emergency Management Administrative Procedures (EMAPs) meet the requirements of the Department of Energy's (DOE) Order 151.1D, "*Comprehensive Emergency Management System*"
- These procedures function in coordination with WVDP-022, "WVDP Emergency Plan," referenced departmental manuals and procedures to establish a clear, timely, and effective response to potential or actual emergencies
- WVDP-139, "WVDP Emergency Management Implementing and Administrative Procedures" contain two types of procedures:
  - EMIPs: detail actual emergency response activities
  - EMAPs: deals with the administration of the WVDP Emergency Management Program



# Concept of Operation

- **Planning:** Includes the development and preparation of emergency plans and procedures, and the identification of necessary personnel and resources to provide an effective response
- **Preparedness:** Includes the training of personnel, the acquisition and maintenance of resources and the exercising of plans, procedures, personnel and resources essential for emergency response
- **Readiness Assurance:** Is the process by which the WVDP verifies and demonstrates readiness to respond to emergencies



Incident Command during  
Full-Scale Emergency Exercise (2019)



Active Shooter Tabletop Drill (2020)

## Concept of Operation (Cont.)

- **Response:** Represents the implementation of planning and preparedness during an emergency and is related in effective decisions, actions, and application of resources
- **Recovery:** Includes all of the planning and actions taken to actually return the facility or site to normal operational status



# WVDP Emergency Management System

Utilizes or includes the following:

- ‘Incident Command’ structure for appropriate field response teams and their relationship to one another under the direction of the Incident Commander
- Overall strategic command structure located in the Emergency Operations Center under the direction of the Emergency Director and the DOE Project Director
- A system of alarms and protective actions that allow the general site population to respond appropriately to an emergency situation



**Full-scale Emergency Exercise (2019) with mutual aid from Cattaraugus County Special Response Team**





Utilizes or includes the following:

- A coordinated program of training, drills, and exercises to:
  - Support the effective operation of the Emergency Response Organization
  - Ensure that all WVDP employees maintain the necessary knowledge to respond correctly in an emergency
  
- Dedicated facilities and equipment, in support of a potential emergency situation, that are maintained and inspected regularly
  
- Provisions for the development of recovery plan outlines prior to resuming normal operations, thus assuring continued attention to the causes of the incident and management of the incident scene



**Emergency Operations Center  
(Ashford Office Complex)**



# Emergency Action Levels

- **Operational Emergency** – a major unplanned or abnormal incident or condition that involves or affects DOE facilities and activities by causing or having the potential to cause serious health and safety or environmental impacts and requires additional resources to supplement the planned initial response
- **Alert** – Declared when events are predicted, are in progress, or have occurred that result in an actual or potential substantial degradation in the level of control over hazardous materials, radiological or non-radiological



Full-scale Emergency Exercise (2019)  
with Controllers and Observers





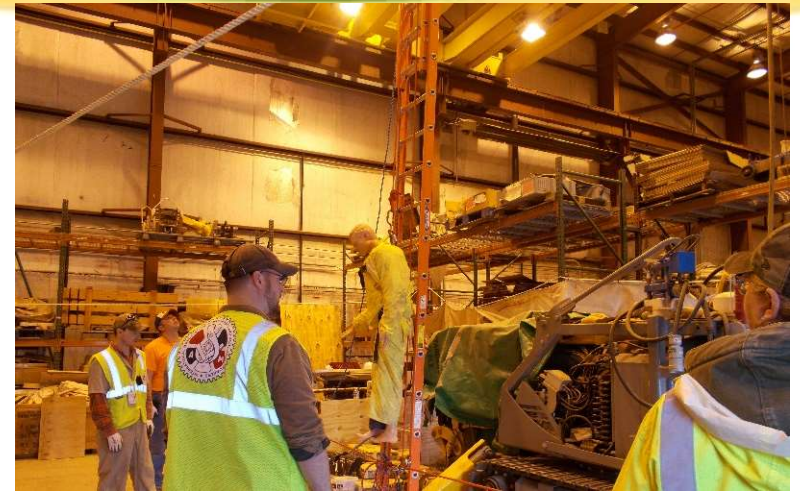
# Emergency Action Levels

- **Site Area Emergency** – A condition in which the radiation dose from any release of radioactive material, or concentration in air from any release of other hazardous material is expected to exceed the applicable Protective Action Criterion at or beyond the facility boundary; and the Protective Action Criterion is not expected to be exceeded at or beyond the site boundary
- **General Emergency** – A condition in which the radiation dose from any release of radioactive material, or concentration in air from any release of other hazardous material is expected to exceed the applicable Protective Action Criterion at or beyond the facility boundary

# Response Teams

- **Emergency Response Organization** – A structured organization with overall identified responsibilities for initial and ongoing emergency response and mitigation
- **Transportation Emergency Management Organization** – A special team to help mitigate off-site transportation incidents
- **Continuity of Operations** – An effort within individual organizations to ensure that essential functions continue to be performed during continuity events
- **Emergency Medical Response Team** – Comprised of representatives from professional medical staff, Emergency Medical Technicians, and Certified First Responders who provide initial first aid to injured personnel until relieved by off-site emergency medical responders

Confined Space Rescue Team trained before professional divers performed work on the site's Fire Water Storage Tank





# Response Teams (Cont.)

- **Radiation Control and Environmental Control Teams** – Comprised of trained and qualified individuals who provide direct and immediate field response to emergency events
- **Confined Space Rescue Team** – A group of employees trained for high-risk activities who respond immediately to such events
- **Safety Team** – Trained individuals from the Safety Department who respond to emergency events to help determine the impact or potential impact from events such as air quality and exposure limits, etc.
- **Operational Response Team** – Trained individuals from Plant System Operations who handle onsite facilities, and their operations and utilities

Basic Security Officer Training Graduates



Confined Space Rescue Training (2018)





# Emergency Preparedness Facilities

- **Emergency Operations Center (EOC)** – A physical location at the Ashford Office Complex, which the coordination of information and resources to support incident command activities takes place
- **Alternate Emergency Operations Center** – An alternate EOC in case the incident/emergency does not permit the use of the EOC
- **Joint News Center** – A central area used to provide timely and accurate information to news media (located at Ashford Office Complex)
- **Joint Information Center** – Working location where multiple jurisdictions gather, process, and disseminate public information during an emergency (e.g., national event or an event that involves WVDP, located at Cattaraugus County's Emergency Operations Center)

# Partnerships/Mutual Aid

- **West Valley Volunteer Hose Company** (Fire Rescue and Ambulance)
- **Bertrand Chaffee** and **Erie County Medical Center** hospitals
- **Mercy Flight** (airlift support services)
- **Cattaraugus County Sheriff's Office**
  - Memorandum of Understanding provides local law enforcement support
  - Training Officer for onsite Security Force
- **Cattaraugus County Emergency Services Office**
  - Hazmat
  - Joint Information Center



**Full-scale Emergency Exercise (2019) with mutual aid from law enforcement agencies**



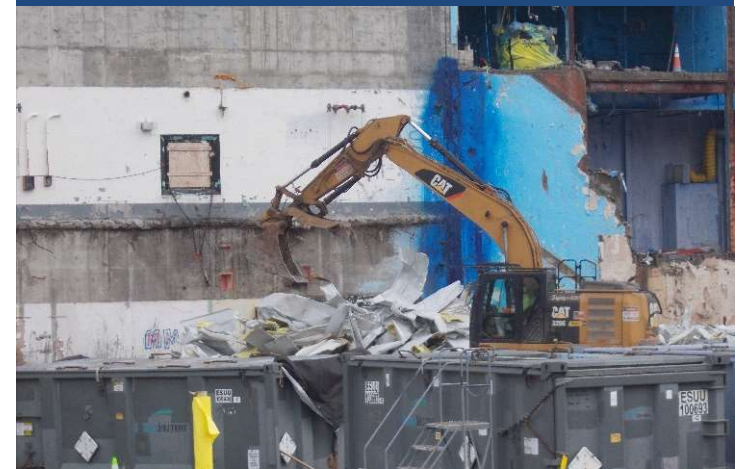


# Lessons Learned and Continuous Improvement

- Continue to **utilize lessons learned** from internal events and other sites
- **Engage** employees in as many drills and exercises as practical and use virtual platforms during COVID to maintain training, qualifications, and compliance with DOE Order 151.1D
- **Capitalize** on training opportunities and fine tune our Training, Exercises, and Drills toward the upcoming demolition of the Main Plant Process Building
- Continue to work with **all outside agencies** (Drills with ECMC and BCH, Exercises with Cattaraugus County Emergency Services and Sheriff's Office, and West Valley Volunteer Hose Company)
- Continual **assessment** of Emergency Management Program's 5-Year Plan



Actual waste containers that will be used for Main Plant demolition



Waste disposition during Load-In Facility demolition



# Summary

- The WVDP has a robust and comprehensive Emergency Preparedness Program
  - The Emergency Preparedness Program continues to meet or exceed DOE Order 151.1D, “*Comprehensive Emergency Management System*”
  - The Emergency Response Organization (ERO) has 154 qualified members to provide resources for events that could occur during and off normal working hours
  - ERO includes 125+ certified staff members in Cardiopulmonary Resuscitation
  - The program is subject to extensive oversight and audits, both internal and external, with minimal findings or observations but frequent notable practices reported
  - Proven record of effective and timely responses to operational events that demonstrated the capability of the organization, including off-hour events