



**FEMA**

**SEP 26 2018**

Sima Merick  
Executive Director  
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2855 West Dublin-Granville Road  
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Dear Ms. Merick:


Enclosed is the Final After-Action Report/Improvement Plan (AAR/IP) for the Beaver Valley Power Station Radiological Emergency Preparedness, Partial-Participation Plume Exposure Pathway Exercise conducted on Tuesday, June 12, 2018.

There were no Level 1 Findings, no Level 2 Findings, and no Plan Issues for the State of Ohio and the County of Columbiana. One Plan Issue for the State of Ohio (03-16-2b2-P-02) from the previous exercise was resolved.

Based on the results of the exercise, the planning and preparedness for both the State of Ohio and the affected local jurisdictions continue to provide reasonable assurance that appropriate measures can be taken to protect the public health and safety. Therefore, Title 44 CFR 350 approval of the offsite radiological emergency response plans and preparedness program remain in effect.

If you have any questions, please contact Sean O'Leary, Chair, Regional Assistance Committee, at (312) 408-5389.

Sincerely,

  
James K. Joseph  
Regional Administrator

Enclosure

cc: DHS/FEMA Headquarters  
NRC Region III  
NRC Headquarters Document Control Desk

# Final After Action Report/ Improvement Plan

Exercise Date – June 12, 2018

Radiological Emergency Preparedness (REP) Program



Beaver Valley Power Station



**FEMA**

*Published September 11, 2018*

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## EXECUTIVE SUMMARY

On June 12, 2018, the Department of Homeland Security, Federal Emergency Management Agency (FEMA) Region V Radiological Emergency Preparedness Program staff evaluated a Partial-Participation Plume Exposure Pathway Exercise in the Emergency Planning Zone (EPZ) for the Beaver Valley Power Station (BVPS).

The BVPS plant is located 22 miles northwest of Pittsburgh, Pennsylvania. The 10-mile Plume Exposure Pathway EPZ of the BVPS encompasses part of Columbiana County, Ohio, and part of Beaver County, Pennsylvania, and Hancock County, West Virginia.

The purpose of the exercise was to assess the level of state and local preparedness in responding to an incident at BVPS. This exercise was conducted in accordance with FEMA's policies and guidance concerning the exercise of State and local radiological emergency response plans and procedures. The previous federally-evaluated exercise at this site was conducted on June 14, 2016. The qualifying emergency preparedness exercise was conducted on November 28, 1984.

Officials and representatives from the State of Ohio and the risk county of Columbiana, and the Licensee participated in this exercise. State and local officials demonstrated knowledge of their emergency response plans and procedures and successfully implemented them. The FEMA evaluation team identified no Level 1 or Level 2 Findings, and no Plan Issues.

The Federal Emergency Management Agency wishes to acknowledge the efforts of the many individuals who participated in the exercise and made it a success. Approximately 339 individuals participated in the off-site portion of the exercise, of which about one-third were local volunteers. The professionalism and teamwork of the participants was evident throughout all phases of the exercise.



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## SECTION 1: Exercise Overview

The DHS/FEMA's responsibilities in radiological emergency planning for fixed nuclear facilities include the following:

- Taking the lead in offsite emergency planning and in the review and evaluation of Radiological Emergency Preparedness Plans (RERPs) and procedures developed by State and local governments;
- Determining whether such plans and procedures can be implemented on the basis of observation and evaluation of exercises of the plans and procedures conducted by State and local governments;
- Responding to requests by the U.S. Nuclear Regulatory Commission (NRC) pursuant to the Memorandum of Understanding between the NRC and FEMA dated December 7, 2015 (Federal Register, Vol. 82, No. 88, May 9, 2017); and
- Coordinating the activities of Federal agencies with responsibilities in the radiological emergency planning process:
  - U.S. Department of Agriculture;
  - U.S. Department of Commerce;
  - U.S. Department of Energy;
  - U.S. Department of Health and Human Services;
  - U.S. Department of the Interior;
  - U.S. Department of Transportation;
  - U.S. Environmental Protection Agency;
  - U.S. Food and Drug Administration; and
  - U.S. Nuclear Regulatory Commission.

Representatives of these agencies serve on the DHS/FEMA Region V Regional Assistance Committee (RAC), which is chaired by DHS/FEMA.

A REP Partial-Participation Plume Exposure Pathway Exercise was conducted on June 12, 2018, and evaluated by DHS/FEMA to assess the capabilities of State and local offsite emergency preparedness organizations in implementing their RERPs and procedures to protect the public's health and safety during a radiological emergency involving the Beaver Valley Power Station. The purpose of this exercise report is to present the exercise results and findings on the performance of the Off-Site Response Organizations (ORO) during a simulated radiological emergency.

The findings presented in this report are based on the evaluations of the Federal evaluation team, with final determinations made by the DHS/FEMA Region V RAC Chair, and approved by the DHS/FEMA Headquarters.

The criteria utilized in the FEMA evaluation process are contained in:

- NUREG-0654/FEMA-REP-1, Rev. 1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," November 1980; and
- FEMA P-1028 REP Program Manual, dated January 2016.

## 1.1 EXERCISE DETAILS

### EXERCISE NAME

2018 Beaver Valley Power Station Radiological Emergency Preparedness (REP), Partial-Participation, Plume Exposure Pathway Exercise

### TYPE OF EXERCISE

Plume Exposure Pathway

### EXERCISE DATE

June 12, 2018

### LOCATIONS

See Appendices C and E for a complete list of locations.

### SPONSORS

Ohio Emergency Management Agency  
2855 West Dublin-Granville Road  
Columbus, Ohio 43235

FirstEnergy Nuclear Operating Company - Beaver Valley Power Station  
808 Pennsylvania Route 168  
Hookstown, Pennsylvania 15050

### PROGRAM

Department Of Homeland Security/Federal Emergency Management Agency Radiological  
Emergency Preparedness Program

### MISSION

Response

### SCENARIO TYPE

Radiological Emergency

## 1.2 EXERCISE PLANNING TEAM LEADERSHIP

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## 1.3 PARTICIPATING ORGANIZATIONS

Agencies and organizations of the following jurisdictions participated in the exercise:

### STATE ORGANIZATIONS

- Ohio Department of Health (ODH)
- Ohio Department of Public Safety (DPS)
- Ohio Department of Transportation (ODOT)
- Ohio Emergency Management Agency (Ohio EMA)
- Ohio Environmental Protection Agency (OEPA)
- Ohio State Highway Patrol (OSHP)

### RISK COUNTY ORGANIZATIONS

- Columbiana County Board of Commissioners
- Columbiana County Community Emergency Response Team (CERT)
- Columbiana County Emergency Management Agency (CCEMA)
- Columbiana County Engineers Department
- Columbiana County General Health District
- Columbiana County Sheriff's Office
- Columbiana County Sheriff's Dispatch Center
- Columbiana County Soil and Water Conservation District

- Geauga County Emergency Management Agency (Controller)
- Ottawa County Emergency Management Agency (Controller)

- Calcutta Volunteer Fire Department
- Lisbon Fire Department
- Negley Volunteer Fire/EMS
- West Point Volunteer Fire Department

- East Liverpool School District
- United Local School District
- Westgate Middle School

### PRIVATE ORGANIZATIONS

- American Red Cross - Northeast Ohio Region
- FirstEnergy Nuclear Operating Company
- Lisbon Area Radio Association
- Lisbon Morning Journal
- Perry Nuclear Power Plant (Controller)
- East Palestine Amateur Radio Club
- Salem Area Amateur Radio Association
- Triangle Amateur Radio Club

### FEDERAL ORGANIZATIONS

- Federal Emergency Management Agency (FEMA)

## SECTION 2: Exercise Design Summary

### 2.1 EXERCISE PURPOSE AND DESIGN

The Federal Emergency Management Agency (FEMA) administers the Radiological Emergency Preparedness (REP) Program pursuant to the regulations found in Title 44 Code of Federal Regulation (CFR) parts 350, 351, and 352. Title 44 CFR Part 350 names sixteen planning standards that form the basis for radiological emergency response planning for state, tribal, and local governments impacted by the EPZs established for each nuclear power plant site in the United States. Title 44 CFR Part 350 sets forth the mechanisms for the formal review and approval of state, tribal, and local government radiological emergency response plans and procedures by FEMA. One of the REP Program requirements established by these regulations is the biennial exercise of offsite response capabilities. During these exercises, FEMA evaluates state, tribal, and local government plans, procedures, and actions to protect the health and safety of the public in the event of a radiological emergency at the nuclear plant.

FEMA provides a statement with the transmission of this Final AAR/IP to the United States NRC that the affected state, tribal, and local plans and preparedness are: (1) adequate to protect the health and safety of the public living in the vicinity of the nuclear power facility by providing reasonable assurance that appropriate protective measures can be taken offsite in the event of a radiological emergency; and (2) capable of being implemented. The report and statement are based on the results of this exercise, review of the radiological emergency response plans and procedures, and verification of the periodic requirements set forth in *"Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," November 1980* (NUREG-0654/FEMA-REP-1, Rev. 1) through the annual letter of certification and staff assistance visits,

Formal submission of the radiological emergency response plans for the Beaver Valley Power Station to FEMA Region V by the State of Ohio and Columbiana County occurred on January 23, 1986. Formal approval of these RERPs was granted by FEMA on June 15, 1987, under 44 CFR 350.

### 2.2 FEMA CORE CAPABILITIES AND EXERCISE OBJECTIVES

Core Capabilities-based planning allows for exercise planning teams to develop exercise objectives and observe exercise outcomes through a framework of specific action items. Using the Homeland Security Exercise and Evaluation Program methodology, the exercise objectives meet the Radiological Emergency Preparedness Program requirements and encompass the emergency preparedness evaluation areas. The critical tasks to be demonstrated were negotiated with the State of Ohio and Columbiana County. The Core Capabilities demonstrated during this exercise were:

**Operational Coordination:** Establish and maintain a unified and coordinated operational structure and process that appropriately integrates all critical stakeholders and supports the execution of Core Capabilities. Mobilize all critical resources and establish command, control, and coordination structures within the affected community, in other coordinating bodies in surrounding communities, and across the Nation, and maintain as needed throughout the duration of an incident. Enhance and maintain command, control, and coordination structures consistent with the National Incident Management System (NIMS) to meet basic human needs, stabilize the incident, and transition to recovery.

**Situational Assessment:** Provide all decision makers with decision-relevant information regarding the nature and extent of the hazard, any cascading effects, and the status of the response. Deliver information sufficient to inform decision making regarding immediate lifesaving and life-sustaining activities, and engage governmental, private, and civic sector resources within and outside of the affected area to meet basic human needs and stabilize the incident. Deliver enhanced information to reinforce ongoing lifesaving and life-sustaining activities, and engage governmental, private, and civic sector resources within and outside of the affected area to meet basic human needs, stabilize the incident, and transition to recovery.

**Public Information and Warning:** Deliver coordinated, prompt, reliable, and actionable information to the whole community through the use of clear, consistent, accessible, and culturally and linguistically appropriate methods to effectively relay information regarding any threat or hazard and, as appropriate, the actions being taken and the assistance being made available. Inform all affected segments of society of critical lifesaving and life-sustaining information by all means necessary, including accessible tools, to expedite the delivery of emergency services and aid the public to take protective actions. Deliver credible and actionable messages to inform ongoing emergency services and the public about protective measures and other life-sustaining actions, and facilitate the transition to recovery.

**Environmental Response/Health and Safety:** Conduct appropriate measures to ensure the protection of the health and safety of the public and workers, as well as the environment, from all-hazards in support of responder operations and the affected communities. Identify, assess, and mitigate worker health and safety hazards, and disseminate health and safety guidance and resources to response and recovery workers. Minimize public exposure to environmental hazards through assessment of the hazards and implementation of public protective actions. Detect, assess, stabilize, and clean up releases of oil and hazardous materials into the environment, including buildings/structures, and properly manage waste. Identify, evaluate, and implement measures to prevent and minimize impacts to the environment, natural and cultural resources, and historic properties from all-hazard emergencies and response operations.

**On-Scene Security, Protection, and Law Enforcement:** Ensure a safe and secure environment through law enforcement and related security and protection operations for people and communities located within affected areas and also for response personnel engaged in lifesaving and life-sustaining operations. Establish a safe and secure environment in an affected area. Provide and maintain on-scene security and meet the protection needs of the affected population over a geographically dispersed area while eliminating or mitigating the risk of further damage to persons, property, and the environment.

**Critical Transportation:** Provide transportation (including infrastructure access and accessible transportation services) for response priority objectives, including the evacuation of people and animals, and the delivery of vital response personnel, equipment, and services into the affected areas. Establish physical access through appropriate transportation corridors and deliver required resources to save lives and to meet the needs of disaster survivors. Ensure basic human needs are met, stabilize the incident, transition into recovery for an affected area, and restore basic services and community functionality. Clear debris from any route type (i.e., road, rail, airfield, port facility, waterway) to facilitate response operations.

**Mass Care Services:** Provide life-sustaining and human services to the affected population, to include hydration, feeding, sheltering, temporary housing, evacuee support, reunification, and distribution of emergency supplies. Move and deliver resources and capabilities to meet the needs of disaster survivors, including individuals with access and functional needs. Establish, staff, and equip emergency shelters and other temporary housing options (including accessible housing) for the affected population. Move from

congregate care to non-congregate care alternatives and provide relocation assistance or interim housing solutions for families unable to return to their pre-disaster homes.

**Public Health, Healthcare, and Emergency Medical Services:** Provide lifesaving medical treatment via Emergency Medical Services and related operations and avoid additional disease and injury by providing targeted public health, medical and behavioral health support, and products to all affected populations. Deliver medical countermeasures to exposed populations. Complete triage and initial stabilization of casualties, and begin definitive care for those likely to survive their injuries and illnesses. Return medical surge resources to pre-incident levels, complete health assessments, and identify recovery processes.

**Operational Communications:** Ensure the capacity for timely communications in support of security, situational awareness, and operations, by any and all means available, among and between affected communities in the impact area and all response forces. Ensure the capacity to communicate with both the emergency response community and the affected populations and establish interoperable voice and data communications between Federal, tribal, state, and local first responders.

**Infrastructure Systems:** Stabilize critical infrastructure functions, minimize health and safety threats, and efficiently restore and revitalize systems and services to support a viable, resilient community. Re-establish critical infrastructure within the affected areas to support ongoing emergency response operations, life sustainment, community functionality, and a transition to recovery. Provide for the clearance, removal, and disposal of debris. This core capability includes the capability to address roadway impediments due to landslides and other events that impair/impede safe evacuation of the public.

The Core Capabilities and their associated Evaluation Criteria selected for demonstration by the jurisdictions establish the assessment objectives for the exercise. These Core Capabilities, when successfully demonstrated, meet the exercise objectives.

The objectives for this exercise were as follows:

**Objective 1:** Demonstrate the ability to provide direction and control and make protective action decisions through the state emergency operations centers, county emergency operations centers, and field activities by exercise play and discussion of plans and procedures.

**Objective 2:** Demonstrate the ability to make protective action decisions affecting state and county emergency workers and the public through exercise play and discussion of plans and procedures.

**Objective 3:** Demonstrate the ability to implement protective actions for state and county emergency workers and the public through exercise play and discussion of plans and procedures.

**Objective 4:** Demonstrate the ability to activate the prompt alert and notification system utilizing the primary notification system and the emergency alert system through exercise play and discussion of plans and procedures.

**Objective 5:** Demonstrate the effectiveness of plans, policies, and procedures in the joint information centers and the joint information system for public and private sector emergency information communications through exercise play and discussion of plans and procedures.

**Objective 6:** Demonstrate the ability to monitor, decontaminate, register, and shelter evacuees through exercise play and discussion of plans and procedures.

**Objective 7:** Demonstrate the ability to provide dose projection and protective action decision making for the plume phase.



**Objective 8:** Demonstrate the capacity for timely communications in support of security, situational awareness, and operations in accordance with the plan, procedures, and Extent-of-Play Agreement, among and between affected communities in the impact area and all response forces.

**Objective 9:** Demonstrate the capacity to stabilize critical infrastructure functions, minimize health and safety threats, and efficiently restore and revitalize systems and services to support a viable, resilient community. Demonstrate the capacity to provide transportation (including infrastructure access and accessible transportation services) for response priority objectives, including the evacuation of people and animals, and the delivery of vital response personnel, equipment, and services into the affected areas.

Collectively, these nine Objectives successfully demonstrated the Core Capabilities and Evaluation Criteria selected by the jurisdictions in accordance with NUREG-0654/FEM-REP-1 and the REP Program Manual (FEMA P-1028, dated January 2016).

## SECTION 3: Analysis of Capabilities

### 3.1 SUMMARY RESULTS OF EXERCISE EVALUATION

This section provides a combined assessment of state and local jurisdictions based upon their collective demonstrated performance under the core capabilities associated with the exercise evaluation criteria described in Appendix E Extent-of-Play Agreements. It employs an integration of the Homeland Security Exercise Evaluation Program and REP Program evaluation methodologies – an analytical process used to assess the demonstration of specific capabilities during an exercise. A capability provides a means to perform one or more critical tasks under specified conditions and to specific performance standards. Core capabilities form the foundation of the National Preparedness System. The REP Program evaluation criteria provide the conditions and performance standards for establishing reasonable assurance that State and Local authorities can protect public health and safety in response to a nuclear power plant accident.

An overall summary of demonstrated capabilities is presented in Section 3.2, Tables 3.2.1 through 3.2.4, of this report. The organizations, locations, and evaluation criteria selected by the State of Ohio and Columbiana County are described in Appendix E, Extent-of-Play Agreements, which were approved by DHS/FEMA on May 22, 2018.

The results of the assessment are summarized below by Core Capability, as demonstrated during the June 12, 2018, BVPS REP Partial-Participation Plume Exposure Pathway Exercise.

**Operational Coordination:** Key leadership personnel established and maintained a unified and coordinated operational structure which provided effective and responsive command, direction and control and coordination within and between the affected jurisdictions to meet basic human needs and stabilize the incident.

Critical stakeholders were appropriately integrated within the overall decision-making process, which enabled protective action recommendations to be evaluated in an appropriate and timely manner. This process included input from both relevant critical stakeholders and support personnel and took into account the safety and well-being of emergency workers and the general public and protecting property and infrastructure protective action decisions were made without undue delay.

**Situational Assessment:** Decision makers were provided with decision-relevant information regarding the nature and extent of the simulated radiological and other hazards, any cascading effects, and the status of the response. The Ohio Emergency Management Agency, Ohio Environmental Protection Agency, and the Ohio Department of Health demonstrated proficiency in the use of dose assessment software to calculate dose projections independent of the Beaver Valley Nuclear Power Station's dose projections. The staff calculated hypothetical dose projections based on plant conditions, possible release scenarios, and Controller-injected field monitoring team data. Leadership was prepared to gather and deliver enhanced information to reinforce lifesaving and life-sustaining activities, if needed, and engage governmental and private sector resources within and outside of the affected area to meet basic human needs and stabilize the incident, as necessary.

**Public Information and Warning:** The jurisdictions as a whole demonstrated the ability to deliver coordinated, prompt, reliable and actionable information to the whole community through the use of clear, consistent and accessible means. Accurate initial information and follow-up on instructions were made with the formulation of news releases being reviewed from the Joint Information System and briefings conducted at the BVPS Joint Public Information Center and at the Columbiana County EMA.

Alert and notification of the public and media was completed in a timely manner by simulated means of sounding of sirens, Emergency Alert System messaging, warning in state parks, news releases and media briefings. The simulated release of information via the aforementioned public information modes were consistent with protective action decisions and contained applicable and specific instructions relative to those decisions.

**Environmental Response/Health and Safety:** Appropriate measures were taken to ensure the protection of the health and safety of the public and workers, as well as the environment in support of responder operations and the affected communities. The availability of guidance and resources to address hazardous radiological materials was integrated in support of responder operations and the affected communities. State Liaisons at the BVPS Emergency Operations Facility communicated well with the State Emergency Operations Center to ensure that state protective action recommendations and county protective action decisions and responses were coordinated properly. Leadership identified, assessed, and mitigated worker health and safety hazards and disseminated health and safety guidance and resources to responders in accordance with the scenario, plans and procedures, and the extent-of-play agreements.

**On-Scene Security and Protection:** State and local law enforcement agencies demonstrated the capability to ensure a safe and secure environment through law enforcement and related security and protection operations for people and communities located within affected areas and also for response personnel who could have been directed to engage in lifesaving and life-sustaining operations. The implementation of traffic and access control was appropriately assessed and coordinated in a timely manner. On-scene security at EOCs, schools, reception centers and other facilities met protection requirements and eliminated or mitigated the risk of damage to persons, property, and the environment.

**Critical Transportation:** Officials demonstrated the capability to provide infrastructure access and accessible transportation services for response priority objectives, including the evacuation of people and animals and the delivery of vital response personnel, equipment, and services into the affected areas. School officials effectively demonstrated the ability to implement protective actions for affected local schools.

**Mass Care Services:** Congregate care center staff demonstrated the ability to provide life-sustaining services to affected populations with a focus on family reunification, feeding and sheltering. The American Red Cross, which manages all shelter operations under the REP Program, demonstrated the ability to provide resources, services and accommodations consistent with planning guidelines. They also demonstrated knowledge of the process, and to determine whether evacuees had been monitored for contamination and determined to be acceptable before entering congregate care facilities.

**Public Health, Healthcare, and Medical Services: Not Selected** – This capability will be demonstrated during the Fall of 2018. Qualified medical personnel successfully demonstrate the ability to provide targeted public health, medical, and behavioral health support and products to populations that might enter shelters and deliver medical countermeasures to exposed populations.

**Operational Communications:** Evaluation Criterion 1d1, which is the key criterion for this capability, was evaluated for applicable organizations and functional entities. Each applicable organization and location demonstrated the capacity for timely communications in support of security, situational awareness, and operations by primary and backup means, the ability to communicate with both the emergency response community and the affected populations, and to establish interoperable communications between Federal, state, and local all response groups and locations and between affected communities in the impact area.

**Infrastructure Systems:** Evaluation Criterion 3d2, which is the key criterion for this capability, was assessed pursuant to Columbiana County's capability to address impediments to mass evacuation.

Columbiana County demonstrated the capability to address roadway impediments due to landslides and other events that impair/impede safe evacuation of the public.

## 3.2 EXERCISE EVALUATION AND RESULTS

This section contains the results and findings of the evaluation of all jurisdictions and functional entities that participated in the June 12, 2018 REP Partial-Participation Plume Exposure Pathway Exercise and out-of-sequence interviews and demonstrations.

Each jurisdiction and functional entity was evaluated based on their demonstration of Core Capabilities and their equivalent Radiological Emergency Preparedness Evaluation Criteria, as delineated in the Federal Emergency Management Agency Radiological Emergency Preparedness Program Manual dated January 2016. Exercise criteria are listed by number, and the demonstration status of those criteria are indicated by the use of the following terms:

- M: Met (no unresolved Level 1 or Level 2 findings were assessed, and there were no unresolved findings from prior exercises)
- Level 1 Finding was assessed
- Level 2 Finding was assessed or an unresolved Level 2 finding(s) from a prior exercise
- P: Plan Issue was assessed
- ND: Not Demonstrated
- NS: Not Selected (the Criterion was not selected for demonstration)

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**Table 3.2.1 – Summary of Exercise Evaluation – State of Ohio**

DATE: June 12, 2018 SITE: Beaver Valley Power Station M: Met L1: Level 1 Finding L2: Level 2 Finding P: Plan Issue ND: Not Demonstrated NS: Not Selected	CRITERION	State Initial Notification Point	State Communications Check	SEOC – Dose Assessment Room	SEOC – Executive Room	SEOC – Assessment Room – Situation Unit	SEOC – JIC Room	SEOC – Operations Room	BVPS – JPIC	Public Info/Media	BVPS – JPIC – Public Inquiry Hotline	State Liaisons – EOF	State Liaison – Columbiana County
Emergency Operations Management													
Mobilization	1a1	M		M	M	M	M				M	M	M
Facilities	1b1			M									
Direction and Control	1c1			M	M	M			M			M	M
Communications Equipment	1d1	M	M	M					M			M	M
Equipment and Supplies to Support Operations	1e1	M	M	M		M	M		M			M	M
Protective Action Decision-Making													
EW Exposure Control Decisions	2a1			M	M			M					
PARs	2b1			M	M								M
PADs	2b2			M	M								
PADs for Disabled/Functional Needs	2c1			M	M								
Ingestion PADs	2d1												
RRR Decisions	2e1												
Protective Action Implementation													
EW Exposure Control Implementation	3a1				M								
KI Public/Institutionalized	3b1				M								
PAD Implementation Disabled/Functional Needs	3c1												
PAD Implementation Schools	3c2												
TACP Establishment	3d1												
Impediments	3d2												
Implement Ingestion PADs	3e1												
Ingestion Pathway Decisions	3e2												
Implementation of RRR Decisions	3f1												
Field Measurement and Analysis													
RESERVED	4a1												
Field Team Management	4a2												
Field Team Operations	4a3												
Field Team Sampling	4b1												
Laboratory Operations	4c1												
Emergency Notification and Public Info													
Initial Alert and Notification	5a1												
RESERVED	5a2												
Backup Alert and Notification	5a3												
Exception Area Alerting	5a4												
Subsequent Information & Instructions	5b1				M		M		M	M			
Support Operations and Facilities													
Reception Center Operations	6a1												
EW Monitoring and Decontamination	6b1												
Congregate Care	6c1												
Contaminated Injured Transport and Care	6d1												

**Table 3.2.2 – Summary of Exercise Evaluation – Columbiana County –  
In-Sequence Activities**

DATE: June 12, 2018 SITE: Beaver Valley Power Station M: Met L1: Level 1 Finding L2: Level 2 Finding P: Plan Issue ND: Not Demonstrated NS: Not Selected	CRITERION	CC Initial Notification Point	CC EOC	CC EOC – Executive Room
<b>Emergency Operations Management</b>				
Mobilization	1a1	M	M	M
Facilities	1b1			
Direction and Control	1c1		M	
Communications Equipment	1d1	M	M	
Equipment and Supplies to Support Operations	1e1	M	M	
<b>Protective Action Decision-Making</b>				
EW Exposure Control Decisions	2a1			M
PARs	2b1			
PADs	2b2			M
PADs for Disabled/Functional Needs	2c1			M
Ingestion PADs	2d1			
RRR Decisions	2e1			
<b>Protective Action Implementation</b>				
EW Exposure Control Implementation	3a1		M	
KI Public/Institutionalized	3b1		M	
PAD Implementation Disabled/Functional Needs	3c1		M	
PAD Implementation Schools	3c2		M	
TACP Establishment	3d1		M	
Impediments	3d2		M	
Implement Ingestion PADs	3e1			
Ingestion Pathway Decisions	3e2			
Implementation of RRR Decisions	3f1			
<b>Field Measurement and Analysis</b>				
RESERVED	4a1			
Field Team Management	4a2			
Field Team Operations	4a3			
Field Team Sampling	4b1			
Laboratory Operations	4c1			
<b>Emergency Notification and Public Info</b>				
Initial Alert and Notification	5a1		M	
RESERVED	5a2			
Backup Alert and Notification	5a3			
Exception Area Alerting	5a4			
Subsequent Information and Instructions	5b1		M	
<b>Support Operations and Facilities</b>				
Reception Center Operations	6a1			
EW Monitoring and Decontamination	6b1			
Congregate Care	6c1			
Contaminated Injured	6d1			

**Table 3.2.3 – Summary of Exercise Evaluation – Columbiana County –  
Out-of-Sequence Activities**

DATE: June 12, 2018 SITE: Beaver Valley Power Station M: Met L1: Level 1 Finding L2: Level 2 Finding P: Plan Issue ND: Not Demonstrated NS: Not Selected	CRITERION	CC Back-up Route Alerting – DC Briefing	CC Back-up Route Alerting – Team A	CC Back-up Route Verification – Team A	CC Back-up Route Alerting – Team B	CC Back-up Route Verification – Team B	CC TCP/ACP – DC Briefing/DD	CC TCP/ACP	EV-2 – East Liverpool SD – DC Briefing	EV-2 – East Liverpool SD
Emergency Operations Management										
Mobilization	1a1									
Facilities	1b1									
Direction and Control	1c1									
Communications Equipment	1d1		M	M	M	M		M		M
Equipment and Supplies to Support Operations	1e1	M	M	M	M	M	M	M	M	M
Protective Action Decision-Making										
EW Exposure Control Decisions	2a1									
PARs	2b1									
PADs	2b2									
PADs for Disabled/Functional Needs	2c1									
Ingestion PADs	2d1									
RRR Decisions	2e1									
Protective Action Implementation										
EW Exposure Control Implementation	3a1	M	M	M	M	M	M	M	M	
KI Public/Institutionalized	3b1									M
PAD Implementation Disabled/Functional Needs	3c1									
PAD Implementation Schools	3c2									M
TACP Establishment	3d1							M		
Impediments	3d2									
Implement Ingestion PADs	3e1									
Ingestion Pathway Decisions	3e2									
Implementation of RRR Decisions	3f1									
Field Measurement and Analysis										
RESERVED	4a1									
Field Team Management	4a2									
Field Team Operations	4a3									
Field Team Sampling	4b1									
Laboratory Operations	4c1									
Emergency Notification and Public Info										
Initial Alert and Notification	5a1									
RESERVED	5a2									
Backup Alert and Notification	5a3		M	M	M	M				
Exception Area Alerting	5a4									
Subsequent Information and Instructions	5b1									
Support Operations and Facilities										
Reception Center Operations	6a1									
EW Monitoring and Decontamination	6b1									
Congregate Care	6c1									
Contaminated Injured	6d1									



**Table 3.2.4 - Summary of Exercise Evaluation –Columbiana County –  
Out-of-Sequence Activities (Cont'd)**

DATE: June 12, 2018 SITE: Beaver Valley Power Station M: Met L1: Level 1 Finding L2: Level 2 Finding P: Plan Issue ND: Not Demonstrated NS: Not Selected	CRITERION	CC M/D Center – DC Brief – Negley FD	CC M/D Center – EWs – Negley FD	CC M/D Center – EW Vehicles– Negley FD	ARC – Reg./Mass Care – United Local School Complex	ARC – Reg./KI Distribution – CC Health Dept	CC Reception Center – West Point FD – DC Brief	CC M/D Center – Evacuees – West Point FD	CC M/D Center – Evacuees Vehicles – West Point FD
Emergency Operations Management									
Mobilization	1a1								
Facilities	1b1				M				
Direction and Control	1c1	M					M		
Communications Equipment	1d1	M					M		
Equipment and Supplies to Support Operations	1e1	M	M	M	M	M	M	M	M
Protective Action Decision-Making									
EW Exposure Control Decisions	2a1								
PARs	2b1								
PADs	2b2								
PADs for Disabled/Functional Needs	2c1								
Ingestion PADs	2d1								
RRR Decisions	2e1								
Protective Action Implementation									
EW Exposure Control Implementation	3a1	M	M	M			M	M	M
KI Public/Institutionalized	3b1								
PAD Implementation Disabled/Functional Needs	3c1								
PAD Implementation Schools	3c2								
TACP Establishment	3d1								
Impediments	3d2								
Implement Ingestion PADs	3e1								
Ingestion Pathway Decisions	3e2								
Implementation of RRR Decisions	3f1								
Field Measurement and Analysis									
RESERVED	4a1								
Field Team Management	4a2								
Field Team Operations	4a3								
Field Team Sampling	4b1								
Laboratory Operations	4c1								
Emergency Notification and Public Info									
Initial Alert and Notification	5a1								
RESERVED	5a2								
Backup Alert and Notification	5a3								
Exception Area Alerting	5a4								
Subsequent Information and Instructions	5b1								
Support Operations and Facilities									
Reception Center Operations	6a1				M	M		M	M
EW Monitoring and Decontamination	6b1		M	M					
Congregate Care	6c1				M				
Contaminated Injured	6d1								

## 3.3 JURISDICTIONAL SUMMARY OF EXERCISE EVALUATION RESULTS

The following sections present a summary of the exercise pursuant to the Evaluation Criteria and Core Capabilities demonstrated at each jurisdiction's response locations. The sections are organized by Jurisdiction, Location, Evaluation Criterion, and Assessed Core Capability, as discussed in the Appendix E Extent-of-Play Agreements. The results of the assessments are summarized in Tables 3.2.1, 3.2.2, 3.2.3, and 3.2.4.

### 3.3.1 State of Ohio

In summary, the status of DHS/FEMA-evaluated core capabilities and criteria for the State of Ohio is as follows:

- a. MET: All Core Capabilities and Evaluation Criteria identified in the DHS/FEMA-approved extent-of-play agreement.

#### 3.3.1.1 SEOC – Initial Notification Point

Criterion 1.a.1 – Core Capability: Operational Communications

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety

Core Capability: Mass Care Services

Core Capability: Public and Private Services and Resources

Core Capability: Public Health and Medical Services

#### 3.3.1.2 SEOC – Multi-Agency Radio Communications System (MARCS) Check

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety

Core Capability: Mass Care Services

Core Capability: Public and Private Services and Resources

Core Capability: Public Health and Medical Services

#### 3.3.1.3 SEOC – Dose Assessment Room

Criterion 1.a.1 – Core Capability: Operational Communications

Criterion 1.b.1 – Core Capability: Operational Coordination

Criterion 1.c.1 – Core Capability: Operational Coordination

Core Capability: Operational Communications

Core Capability: Situational Assessment

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety

Core Capability: Mass Care Services

Core Capability: Public & Private Services and Resources

Core Capability: Public Health and Medical Services

Criterion 2.a.1 – Core Capability: Operational Coordination

Core Capability: Environmental Response/Health and Safety

Core Capability: Situational Assessment

Criterion 2.b.1 – Core Capability: Operational Coordination

Core Capability: Intelligence and Information Sharing

Core Capability: Environmental Response/Health and Safety

Core Capability: Operational Communications

Core Capability: Situational Assessment

Criterion 2.b.2 – Core Capability: Operational Coordination

Core Capability: Intelligence and Information Sharing

Core Capability: Environmental Response/Health and Safety

Core Capability: Operational Communications

Core Capability: Situational Assessment

Criterion 2.c.1 – Core Capability: Operational Coordination

Core Capability: Operational Communications

Core Capability: Situation Awareness

#### 3.3.1.4 SEOC – Executive Room

Criterion 1.a.1 – Core Capability: Operational Communications

Criterion 1.c.1 – Core Capability: Operational Coordination

Core Capability: Operational Communications

Core Capability: Situational Assessment

Criterion 2.a.1 – Core Capability: Operational Coordination

Core Capability: Environmental Response/Health and Safety

Core Capability: Situational Assessment

Criterion 2.b.1 – Core Capability: Operational Coordination

Core Capability: Intelligence and Information Sharing

Core Capability: Environmental Response/Health and Safety

Core Capability: Operational Communications

- Core Capability: Situational Assessment
- Criterion 2.b.2 – Core Capability: Operational Coordination
  - Core Capability: Intelligence and Information Sharing
  - Core Capability: Environmental Response/Health and Safety
  - Core Capability: Operational Communications
  - Core Capability: Situational Assessment
- Criterion 3.a.1 – Core Capability: Operational Coordination
  - Core Capability: Environmental Response/Health and Safety
- Criterion 3.b.1 – Core Capability: Operational Coordination
  - Core Capability: Public Information and Warning
  - Core Capability: Environmental Response/Health and Safety
  - Core Capability: Public and Private Services and Resources
- Criterion 5.b.1 – Core Capability: Public Information and Warning
  - Core Capability: Operational Coordination
  - Core Capability: Operation Communications
- 3.3.1.5 SEOC – Assessment Room – Situation Unit
  - Criterion 1.a.1 – Core Capability: Operational Communications
  - Criterion 1.c.1 – Core Capability: Operational Coordination
    - Core Capability: Operational Communications
    - Core Capability: Situational Assessment
  - Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety
    - Core Capability: Mass Care Services
    - Core Capability: Public and Private Services and Resources
    - Core Capability: Public Health and Medical Services
- 3.3.1.6 SEOC – JIC Room
  - Criterion 1.a.1 – Core Capability: Operational Communications
  - Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety
    - Core Capability: Mass Care Services
    - Core Capability: Public and Private Services and Resources
    - Core Capability: Public Health and Medical Services

Criterion 5.b.1 – Core Capability: Public Information and Warning

Core Capability: Operational Coordination

Core Capability: Operation Communications

#### 3.3.1.7 SEOC – Operations Room

Criterion 2.a.1 – Core Capability: Operational Coordination

Core Capability: Environmental Response/Health and Safety

Core Capability: Situational Assessment

#### 3.3.1.8 BVPS – Public Information/Media Briefings

Criterion 1.c.1 – Core Capability: Operational Coordination

Core Capability: Operational Communications

Core Capability: Situational Assessment

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety

Core Capability: Mass Care Services

Core Capability: Public and Private Services and Resources

Core Capability: Public Health and Medical Services

Criterion 5.b.1 – Core Capability: Public Information and Warning

Core Capability: Operational Coordination

Core Capability: Operation Communications

#### 3.3.1.9 BVPS – Public Inquiry Hotline

Criterion 1.a.1 – Core Capability: Operational Communications

Criterion 5.b.1 – Core Capability: Public Information and Warning

Core Capability: Operational Coordination

Core Capability: Operation Communications

#### 3.3.1.10 State Liaisons – Emergency Operations Facility (EOF)

Criterion 1.a.1 – Core Capability: Operational Communications

Criterion 1.c.1 – Core Capability: Operational Coordination

Core Capability: Operational Communications

Core Capability: Situational Assessment

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety

Core Capability: Mass Care Services

Core Capability: Public and Private Services and Resources

Core Capability: Public Health and Medical Services

3.3.1.11 State Liaisons – Columbiana County Emergency Operations Center

Criterion 1.a.1 – Core Capability: Operational Communications

Criterion 1.c.1 – Core Capability: Operational Coordination

Core Capability: Operational Communications

Core Capability: Situational Assessment

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety

Core Capability: Mass Care Services

Core Capability: Public and Private Services and Resources

Core Capability: Public Health and Medical Services

Criterion 2.b.1 – Core Capability: Operational Coordination

Core Capability: Intelligence and Information Sharing

Core Capability: Environmental Response/Health and Safety

Core Capability: Operational Communications

Core Capability: Situational Assessment

b. LEVEL 1 FINDINGS: NONE

c. LEVEL 2 FINDINGS: NONE

d. PLAN ISSUES: NONE

e. PRIOR ISSUES – RESOLVED: NONE

f. PRIOR ISSUES – UNRESOLVED: NONE

### 3.3.2 Risk Jurisdiction – Columbiana County

In summary, the status of DHS/FEMA-evaluated core capabilities and criteria for the Columbiana County is as follows:

- a. MET: All Core Capabilities and Evaluation Criteria identified in the DHS/FEMA-approved extent-of-play agreement.

#### 3.3.2.1 Initial Notification Point

Criterion 1.a.1 – Core Capability: Operational Communications

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety

Core Capability: Mass Care Services

Core Capability: Public and Private Services and Resources

Core Capability: Public Health and Medical Services

#### 3.3.2.2 EOC – Executive Room

Criterion 1.c.1 – Core Capability: Operational Coordination

Core Capability: Operational Communications

Core Capability: Situational Assessment

Criterion 2.a.1 – Core Capability: Operational Coordination

Core Capability: Environmental Response/Health and Safety

Core Capability: Situational Assessment

Criterion 2.b.2 – Core Capability: Operational Coordination

Core Capability: Intelligence and Information Sharing

Core Capability: Environmental Response/Health and Safety

Core Capability: Operational Communications

Core Capability: Situational Assessment

Criterion 2.b.2 – Core Capability: Operational Coordination

Core Capability: Intelligence and Information Sharing

Core Capability: Operational Communications

Core Capability: Situational Assessment

#### 3.3.2.3 EOC – Operations Room

Criterion 1.a.1 – Core Capability: Operational Communications

Criterion 1.c.1 – Core Capability: Operational Coordination

Core Capability: Operational Communications

Core Capability: Situational Assessment

- Criterion 1.d.1 – Core Capability: Operational Communications
- Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety
  - Core Capability: Mass Care Services
  - Core Capability: Public and Private Services and Resources
  - Core Capability: Public Health and Medical Services
- Criterion 3.a.1 – Core Capability: Operational Coordination
  - Core Capability: Environmental Response/Health and Safety
- Core Capability: Operational Coordination – Criterion 3.b.1
- Criterion 3.c.1 – Core Capability: Public Information and Warning
  - Core Capability: Operational Coordination
  - Core Capability: Critical Transportation
  - Core Capability: Environmental Response/Health and Safety
- Criterion 3.c.2 – Core Capability: Operational Coordination
  - Core Capability: Critical Transportation
  - Core Capability: Environmental Response/Health and Safety
- Criterion 3.d.1 – Core Capability: Operational Coordination
  - Core Capability: Critical Transportation
  - Core Capability: On-Scene Security and Protection
- Criterion 3.d.2 – Core Capability: Operational Coordination
  - Core Capability: Critical Transportation
  - Core Capability: Infrastructure Systems
- Criterion 5.a.1 – Core Capability: Public Information and Warning
  - Core Capability: Operational Coordination
  - Core Capability: Operational Communications
- Criterion 5.b.1 – Core Capability: Public Information and Warning
  - Core Capability: Operational Coordination
  - Core Capability: Operational Communications
- 3.3.2.4 Traffic and Access Control – Dosimetry Briefing – Ohio State Highway Patrol
  - Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety
    - Core Capability: Mass Care Services
    - Core Capability: Public and Private Services and Resources
    - Core Capability: Public Health and Medical Services



Criterion 3.a.1 – Core Capability: Operational Coordination

Core Capability: Environmental Response/Health and Safety

3.3.2.5 Traffic and Access Control – Ohio State Highway Patrol

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety

Core Capability: Mass Care Services

Core Capability: Public and Private Services and Resources

Core Capability: Public Health and Medical Services

Criterion 3.a.1 – Core Capability: Operational Coordination

Core Capability: Environmental Response/Health and Safety

Criterion 3.d.1 – Core Capability: Operational Coordination

Core Capability: Critical Transportation

Core Capability: On-Scene Security and Protection

3.3.2.6 EV-2 Schools – East Liverpool School District – Dosimetry Briefing

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety

Core Capability: Mass Care Services

Core Capability: Public and Private Services and Resources

Core Capability: Public Health and Medical Services

Criterion 3.a.1 – Core Capability: Operational Coordination

Core Capability: Environmental Response/Health and Safety

3.3.2.7 EV-2 Schools – East Liverpool School District – Interview

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety

Core Capability: Mass Care Services

Core Capability: Public and Private Services and Resources

Core Capability: Public Health and Medical Services

Criterion 3.b.1 – Core Capability: Critical Transportation

Criterion 3.c.2 – Core Capability: Operational Coordination

Core Capability: Critical Transportation

Core Capability: Environmental Response/Health and Safety

#### 3.3.2.8 Reception Center – Dosimetry Briefing – West Point FD

Criterion 1.c.1 – Core Capability: Operational Coordination

Core Capability: Operational Communications

Core Capability: Situational Assessment

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety

Core Capability: Mass Care Services

Core Capability: Public and Private Services and Resources

Core Capability: Public Health and Medical Services

Criterion 3.a.1 – Core Capability: Operational Coordination

Core Capability: Environmental Response/Health and Safety

#### 3.3.2.9 Reception Center – Registration – American Red Cross

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety

Core Capability: Mass Care Services

Core Capability: Public and Private Services and Resources

Core Capability: Public Health and Medical Services

Criterion 6.a.1 – Core Capability: Environmental Response/Health and Safety

Core Capability: Mass Care Services

#### 3.3.2.10 Reception Center – Monitoring and Decontamination – Evacuees – West Point FD

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety

Core Capability: Mass Care Services

Core Capability: Public and Private Services and Resources

Core Capability: Public Health and Medical Services

Criterion 3.a.1 – Core Capability: Operational Coordination

Core Capability: Environmental Response/Health and Safety

Criterion 6.a.1 – Core Capability: Environmental Response/Health and Safety

Core Capability: Mass Care Services

#### 3.3.2.11 Reception Center – Monitoring and Decontamination – Evacuee Vehicles – West Point FD

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety

Core Capability: Mass Care Services

Core Capability: Public and Private Services and Resources

Core Capability: Public Health and Medical Services

Criterion 3.a.1 – Core Capability: Operational Coordination

Core Capability: Environmental Response/Health and Safety

Criterion 6.a.1 – Core Capability: Environmental Response/Health and Safety

Core Capability: Mass Care Services

#### 3.3.2.12 Backup Route Alerting – Dosimetry Briefing – Calcutta Volunteer FD

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety

Core Capability: Mass Care Services

Core Capability: Public and Private Services and Resources

Core Capability: Public Health and Medical Services

Criterion 3.a.1 – Core Capability: Operational Coordination

Core Capability: Environmental Response/Health and Safety

#### 3.3.2.13 Backup Route Alerting – Calcutta Volunteer FD – Team A

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety

Core Capability: Mass Care Services

Core Capability: Public and Private Services and Resources

Core Capability: Public Health and Medical Services

Criterion 3.a.1 – Core Capability: Operational Coordination

Core Capability: Environmental Response/Health and Safety

Criterion 5.a.3 – Core Capability: Public Information and Warning

Core Capability: Operational Communications

#### 3.3.2.14 Route Verification – Calcutta Volunteer FD – Team A

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety

Core Capability: Mass Care Services

Core Capability: Public and Private Services and Resources

Core Capability: Public Health and Medical Services

Criterion 3.a.1 – Core Capability: Operational Coordination

Core Capability: Environmental Response/Health and Safety

Criterion 5.a.3 – Core Capability: Public Information and Warning  
Core Capability: Operational Communications

3.3.2.15 Backup Route Alerting – Calcutta Volunteer FD – Team B

Criterion 1.d.1 – Core Capability: Operational Communications  
Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety  
Core Capability: Mass Care Services  
Core Capability: Public and Private Services and Resources  
Core Capability: Public Health and Medical Services  
Criterion 3.a.1 – Core Capability: Operational Coordination  
Core Capability: Environmental Response/Health and Safety  
Criterion 5.a.3 – Core Capability: Public Information and Warning  
Core Capability: Operational Communications

3.3.2.16 Route Verification – Calcutta Volunteer FD – Team B

Criterion 1.d.1 – Core Capability: Operational Communications  
Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety  
Core Capability: Mass Care Services  
Core Capability: Public and Private Services and Resources  
Core Capability: Public Health and Medical Services  
Criterion 3.a.1 – Core Capability: Operational Coordination  
Core Capability: Environmental Response/Health and Safety  
Criterion 5.a.3 – Core Capability: Public Information and Warning  
Core Capability: Operational Communications

3.3.2.17 Monitoring/Decontamination Center – Dosimetry Briefing –  
Negley Volunteer Fire/EMS

Criterion 1.c.1 – Core Capability: Operational Coordination  
Core Capability: Operational Communications  
Core Capability: Situational Assessment  
Criterion 1.d.1 – Core Capability: Operational Communications  
Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety  
Core Capability: Mass Care Services  
Core Capability: Public and Private Services and Resources  
Core Capability: Public Health and Medical Services

Criterion 3.a.1 – Core Capability: Operational Coordination

Core Capability: Environmental Response/Health and Safety

3.3.2.18 Monitoring/Decontamination Center – Emergency Workers –

Negley Volunteer Fire/EMS

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety

Core Capability: Mass Care Services

Core Capability: Public and Private Services and Resources

Core Capability: Public Health and Medical Services

Criterion 3.a.1 – Core Capability: Operational Coordination

Core Capability: Environmental Response/Health and Safety

Criterion 6.b.1 – Core Capability: Environmental Response/Health and Safety

3.3.2.19 Monitoring/Decontamination Center – Emergency Worker Vehicles –

Negley Volunteer Fire/EMS

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety

Core Capability: Mass Care Services

Core Capability: Public and Private Services and Resources

Core Capability: Public Health and Medical Services

Criterion 3.a.1 – Core Capability: Operational Coordination

Core Capability: Environmental Response/Health and Safety

Criterion 6.b.1 – Core Capability: Environmental Response/Health and Safety

3.3.2.20 Congregate Care Center – Registration and Congregate Care –

American Red Cross – United Local School Complex

Criterion 1.b.1 – Core Capability: Mass Care Services

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety

Core Capability: Mass Care Services

Core Capability: Public and Private Services and Resources

Core Capability: Public Health and Medical Services

Criterion 6.a.1 – Core Capability: Environmental Response/Health and Safety

Core Capability: Mass Care Services

Criterion 6.c.1 – Core Capability: Operational Coordination

Core Capability: Mass Care Services

- b. LEVEL 2 FINDINGS: NONE
- c. PLAN ISSUES: NONE
- d. PRIOR ISSUES – RESOLVED: NONE
- e. PRIOR ISSUES – UNRESOLVED: NONE

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## SECTION 4: Conclusion

There were no Level 1 or Level 2 Findings and no Plan Issues identified for the State of Ohio or Columbiana County.

Based on the results of the exercise, the planning and preparedness for the State of Ohio and affected local jurisdictions provide reasonable assurance that appropriate measures can be taken to protect public health and safety. Therefore, Title 44 CFR Part 350, approval of the offsite radiological emergency response plans and preparedness for the state of Ohio, remains in effect.



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## APPENDIX A: Improvement Plan

This appendix summarizes the findings from the of the evaluation of all jurisdictions and functional entities that participated in the June 12, 2018, Beaver Valley Power Station Partial-Participation Plume Exposure Pathway Exercise to test the offsite emergency response capabilities of State and local governments in the 10-mile EPZ surrounding the BVPS, recommended corrective actions, and a schedule of corrective actions for the identified primary responsible agency.

**Plan Issue: 03-16-2b2-P-02**

**ORO: Ohio Department of Health**

**Criterion: 2.b.2**

**CONDITION:** Ohio Department of Health Procedure 10-RAD-01, “Distribution and Use of potassium iodide (KI) for the 10-mile Emergency Planning Zone Population” (dated April 10, 2015) does not contain threshold values for Committed Dose Equivalent (CDE) that would trigger a recommendation for the use of KI for the public.

**RECOMMENDATION:** Add thyroid CDE from the EPA Protective Action Guides to DOH Procedure 10-RAD-01 and designate if values used are for child thyroid or adult thyroid.

**SCHEDULE OF CORRECTIVE ACTIONS:** Prior to next biennial REP exercise in which the Assessment Room staff participates partially or fully, the State of Ohio will revise Ohio Department of Health Procedure 10-RAD-01, “Distribution and Use of potassium iodide (KI) for the 10-mile Emergency Planning Zone Population” (dated April 10, 2015) to contain threshold values for Committed Dose Equivalent (CDE) that would trigger a recommendation for the use of KI for the public, and submit the revise procedure to FEMA for review.

**CORRECTIVE ACTION DESCRIPTION:** Ohio Department of Health Procedure 10-RAD- 01 was superseded by policy directive 10-BEHRP-01, dated July 12, 2016, and includes the guidance to advise KI use by institutionalized populations and emergency workers when there is “significant probability of a radioactive material release results in a CDE of 5 rem child thyroid.” While consistent with FDA guidance. Sec. VI.C.1 of 10-BEHRP-01 omitted the general population from those covered by the CDE of 5 rem child thyroid standard to recommend KI use. Consequently, prior Plan Issue 03-16-2b2-P-02 remained unresolved. The ODH requested, and the FEMA R5 RAC Chair granted additional time for ODH to complete its internal review/approval process. On December 21, 2017, the ODH submitted a revised version of the directive, which would have become effective December 31, 2017. However, FEMA’s review suggested that some additional clarifications were needed. At ODH’s request, FEMA R5 staff met with ODH officials on April 25, 2018, to review proposed language changes, at which time general consensus was reached regarding the content of the directive. The ODH undertook final review and approval of the proposed language changes, and, on April 27, 2018, submitted a revised Draft policy directive (Rev 6) to FEMA R5 for concurrence. In accordance with ODH policy, the Draft ODH KI policy directive 10-BEHRP-01, which incorporated the negotiated revisions, was reviewed by other applicable State of Ohio agencies, and the Final 10-BEHRP-01, Rev 6, policy directive was approved by ODH on June 5, 2018.

<b>CAPABILITY:</b> Operational Coordination	<b>PRIMARY RESPONSIBLE AGENCY:</b> Ohio Department of Health
<b>CORE CAPABILITY ELEMENT:</b> Environmental Response/Health and Safety  <b>REP ASSESSMENT AREA:</b> Protective Action Decision-Making	<b>ESTIMATED COMPLETION DATE:</b>  Originally, corrective action was to be completed prior to next biennial REP exercise in which the SEOC Assessment Room staff participated partially or fully, i.e., prior to the Perry Nuclear Power Plant REP Exercise, scheduled for September 13, 2016.  At ODH's request, completion was pushed back to accommodate the agency's Fall review cycle, with an estimated completion date of December 31, 2017. The Draft policy directive received on December 21, 2017, required further revision. Subsequent discussions between FEMA and ODH resolved FEMA's concerns on April 25, 2018. On April 27, 2018, ODH submitted a pre-signature draft final version of the policy directive. Review by other applicable State of Ohio agencies was completed on June 1, 2018, and a copy of the 10-BEHRP-01, Rev 6, policy directive approved by ODH on June 5, 2018, was delivered electronically to FEMA on June 7, 2018.  Per the Corrective Action Description above FEMA R5 issued correspondence on June 7, 2018, closing Plan Issue 03-16-2b2-P-02.
<b>AGENCY POC:</b> Pamela Hintz	

## APPENDIX B: Exercise Timeline

Emergency Classification Level Event or Action	Time Utility Declared	Time that Notification Was Received or Action Was Taken All times are Eastern Daylight Time (EDT)						
		EOF	SEOC DOSE ASSESS Room	SEOC EXEC Room	SEOC ASSESS Room	SEOC JIC Room	COLUMBIANA County	BVPS JPIC
<b>Unusual Event</b> * State/County INP Time /	1610	1616	1625	1652	1622*	N/A	1621*	N/A
<b>Alert</b>	1717	1737	1728	1737	1720	1742	1731	1717
<b>Site Area Emergency</b>	1832	1834	1840	1840	1837	1840	1840	1844
<b>General Emergency</b>	N/A	N/A	-----	-----	-----	-----	N/A	N/A
<b>Release of Rad Material Started</b>		1906	1921	-----	1932	-----	1932	-----
<b>Release of Rad Material Terminated</b>		1952	1953	-----	-----	-----	1952	-----
<b>Facility Declared Operational</b> ** Ohio Liaisons Arrived		1652 1722**	1730	1720	-----	-----	1740	1745 1802**
<b>Declaration of State/Local Emergency</b>		1859	1852	1841	-----	1841	1900	1844
<b>Exercise Terminated</b>		2007	2008	2008	2009	2012	2005	-----
<b>Early Precautionary Action Recommendations:</b>								
1. Relocate School Children: Co PAD – No Action Required		N/A	N/A	N/A	N/A	N/A	1737	-----
2. Restrict Boating Traffic		N/A	N/A	N/A	N/A	2007	N/A	1959
3. Restrict Air and Rail Traffic		2005	1852	1930	1930	2007	N/A	1959
4. Close Parks		1859	1852	1841	1841	2007	N/A	1959
5. Livestock Advisory		1859	1852	1841	1841	1852	N/A	1841
<b>General Information Message Only:</b> “Monitor EAS” (Decision Made)		N/A	N/A	N/A	N/A	N/A	1845	1902
<b>1<sup>st</sup> Siren Activation:</b>			1900	1900	1900		1900	N/A
<b>1<sup>st</sup> EAS/EBS Message:</b> Message B		1907	1903	1903	1903	1906	1903	N/A
<b>1<sup>st</sup> Protective Action Recommendation:</b> NONE State PAR[s] to County: Public Listen to Media		N/A	1844	1844	-----	-----	N/A	N/A
<b>1<sup>st</sup> Protective Action Decision[s] – County PAD[s]:</b> <input checked="" type="checkbox"/> No Action (Decision Made) DRD Correction Values: N/A		N/A	1850	1850	-----	-----	1850	N/A
<b>2<sup>nd</sup> Siren Activation:</b>		N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>2<sup>nd</sup> EAS/EBS Message:</b>		N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>KI Administration Decision:</b> EW/Public/Immobile Populations		N/A	N/A	N/A	N/A	N/A	N/A	N/A

**LEGEND:** N/A = ECL/Event/Action Not Applicable at Location      ----- = Time Not Reported

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## APPENDIX C: Exercise Evaluation Team

**EXERCISE DATE: June 12, 2018**

**SITE: Beaver Valley Power Station**

<b>Exercise Management</b>	<b>Name</b>	<b>Agency/ Organization</b>
Chair, Regional Assistance Committee	Sean O’Leary	DHS/FEMA
Exercise Director	Edward Golinski	DHS/FEMA
Assistant Exercise Director	Stephen Tulley	DHS/FEMA
Ohio Site Specialist	Carl Bebrich	DHS/FEMA
Team Leader – State of Ohio	Edward Diaz	DHS/FEMA
Team Leader – Columbiana County	David Ortman	DHS/FEMA
Contractor Evaluator Support – Regional Coordinator	Marcy Campbell	ICFI
Contractor Administrative Support	Alexis Gearing	ICFI

<b>Evaluated Off-Site Response Organizations/Locations</b>	<b>Evaluator</b>	<b>Agency/ Organization</b>
<b>State of Ohio</b>		
Ohio – SEOC – Initial Notification Point	Brian Reinhart	DHS/FEMA
Ohio – SEOC – INP MARCS Communications Check	Mark Dalton	ICFI
Ohio – SEOC – Executive Room	Bruce Swiren	ICFI
Ohio – SEOC – Dose Assessment Room	Brian Clark	ICFI
Ohio – SEOC – Dose Assessment Room	Jill Leatherman	ICFI
Ohio – SEOC – Assessment Room/Situation Unit	Mark Dalton	ICFI
Ohio – SEOC – JIC Room – Public Information	Brian Reinhart	DHS/FEMA
Ohio – SEOC – JIC Room – Public Inquiry/Rumor Control	Brian Reinhart	DHS/FEMA
Ohio – SEOC – Operations Room	Jill Leatherman	ICFI
Ohio – State Liaisons – BVPS Emergency Operations Facility	Marcy Campbell	ICFI
Ohio – State Liaisons – Columbiana County EOC	Thomas Essig	ICFI
Ohio – BVPS JPIC – Public Information/Media Briefings	Thomas Hegele	ICFI
Ohio – BVPS JPIC – Public Inquiry Hotline	Thomas Hegele	ICFI

<b>Columbiana County</b>		
Columbiana County – Initial Notification Point	Kimberly Alahmadi	DHS/FEMA
Columbiana County – Emergency Operations Center	Janet Hlavaty-LaPosa	DHS/FEMA
Columbiana County – Emergency Operations Center	Frank Cordaro	ICFI
Columbiana County – Emergency Operations Center – Executive Group	Rebecca Thomson	ICFI
Columbiana County – TCP/ACP – DC Briefing – Ohio State Highway Patrol – Lisbon Post	Curtis Williams	DHS/FEMA
Columbiana County – TCP/ACP – Ohio State Highway Patrol – Lisbon Post	Paul Ringheiser	ICFI
Columbiana County – EV-2 – DC Briefing – East Liverpool School District	Lynn Steffensen	ICFI
Columbiana County – EV-2 – East Liverpool School District – School Protective Actions	Lynn Steffensen	ICFI
Columbiana County – Back-Up Route Alerting/Route Verification – DC Briefing – Calcutta Volunteer Fire Department	Kimberly Alahmadi	DHS/FEMA
Columbiana County – Back-Up Route Alerting – Calcutta Volunteer Fire Department – Team A	Kimberly Alahmadi	DHS/FEMA
Columbiana County – Back-Up Route Alerting/Route Verification – Calcutta Volunteer Fire Department – Team A	Kimberly Alahmadi	DHS/FEMA
Columbiana County – Back-Up Route Alerting – Calcutta Volunteer Fire Department – Team B	Carl Bebrich	DHS/FEMA
Columbiana County – Back-Up Route Alerting/Route Verification – Calcutta Volunteer Fire Department – Team B	Carl Bebrich	DHS/FEMA
Columbiana County – Reception Center – M/D – DC Briefing – Beaver Local School Complex – West Point Fire Department	John Wiecejorek	ICFI
Columbiana County – Reception Center – M/D – Evacuees – Beaver Local Complex – West Point Fire Department	Cheryl Weaver	ICFI
Columbiana County – Reception Center – M/D – Evacuee Vehicles – Beaver Local School Complex – West Point Fire Department	Dennis Wilford	ICFI
Columbiana County – Reception Center – Registration of Evacuees – Beaver Local School Complex – American Red Cross	John Wiecejorek	ICFI
Columbiana County – Congregate Care Center – United Local School Complex – American Red Cross	Paul Ringheiser	ICFI
Columbiana County – EW M/D – DC Briefing – Negley Fire Department/EMS	Curtis Williams	DHS/FEMA
Columbiana County – EW M/D – EWs – Negley Fire Department/EMS	Cheryl Weaver	ICFI
Columbiana County – EW M/D – EW Vehicles – Negley Fire Department/EMS	Dennis Wilford	ICFI

## APPENDIX D: Acronyms and Abbreviations

ACRONYM	DESCRIPTION
AAR	After Action Report
AC	Alternating Current
AG	Assessment Group
Ag	Agricultural
ANS	Alert and Notification System
ARC	American Red Cross
ARES	Amateur Radio Emergency Service
BLSC	Beaver Local Sports Complex
BVPS	Beaver Valley Power Station
B/Up	Back-Up
CC	Columbiana County
CCC	Congregate Care Center
CCEMA	Columbiana County Emergency Management Agency
CCS	Contamination Control Supervisor
CDE	Committed Dose Equivalent
CEDE	Combined Effective Dose Equivalent
CERT	Community Emergency Response Team
CFR	Code of Federal Regulations
cpm	counts per minute
Cs	Cesium
CVFD	Calcutta Volunteer Fire Department
DC	Dosimetry Coordinator
DCL	Dosimetry Control Log
DC	Dosimetry Coordinator
DHS	Department of Homeland Security
DOE	Department of Energy
DPM	Disaster Preparedness Manager
DPS	Disaster Preparedness Specialist
DPW	Department of Public Works
DRD	Direct Reading Dosimeter
EAL	Emergency Action Level
EAS	Emergency Alert System
ECL	Emergency Classification Level
EMA	Emergency Management Agency
EMD	Emergency Management Director
EMHSD	Emergency Management Homeland Security Division
EMS	Emergency Medical Service
EMT	Emergency Medical Technician



ACRONYM	DESCRIPTION
EOC	Emergency Operation Center
EOF	Emergency Operations Facility
EPT	Exercise Planning Team
EPZ	Emergency Planning Zone
ETE	Evacuation Time Estimate
EV-2	Reference to FEMA REP Guidance Memorandum – GM EV-2, Protective Actions for School Children, November 13, 1986
EW	Emergency Worker
EWDC	Emergency Worker Decontamination Center
FBI	Federal Bureau of Investigation
FD	Fire Department
FEMA	Federal Emergency Management Agency
FENOC	FirstEnergy Nuclear Operating Company
FMTs	Field Monitoring Teams
g	gram(s)
GE	General Emergency
GIS	Geographical Information System
gpm	gallons per minute
IC	Incident Commander
INP	Initial Notification Point
IP	Improvement Plan
JIC	Joint Information Center
JPIC	Joint Public Information Center
JIN	Joint Information Network
JIS	Joint Information System
JIT	Just In Time (training)
KI	Potassium Iodide
KV	KiloVolts
LE	Law Enforcement
LEADS	Law Enforcement Automated Data System
M/D	Monitoring/Decontamination
MARCS	Multi-Agency Radio Communications System
μCi/ml	micro (10 <sup>-6</sup> ) Curies per milliliter
mg	milligram
MHz	Megahertz
min	minute(s)
MPH/mph	miles per hour
μR	micro (10 <sup>-6</sup> ) R/micro Roentgen
NFEMP	Nuclear Facilities Emergency Management Plan
NOAA	National Oceanic and Atmospheric Administration
NRC	Nuclear Regulatory Commission
NWS	National Weather Service

ACRONYM	DESCRIPTION
OBE	Operating-Basis Earthquake
ODA	Ohio Department of Agriculture
ODH	Ohio Department of Health
ODP	Office of Domestic Preparedness
Ohio EMA	Ohio Emergency Management Agency
OEPA	Ohio Environmental Protection Agency
OOS	Out-of-Sequence
ORO	Offsite Response Organizations
OSHP	Ohio State Highway Patrol
OSLD	Optically Stimulated Luminescence Dosimeter
PAA	Protective Action Area
PAD	Protective Action Decision
PAR	Protective Action Recommendation
PDAFNs	Persons with Disabilities and Access/Functional Needs
PDP	Personal Dosimetry Packet
PEMA	Pennsylvania Emergency Management Agency
PIO	Public Information Officer
PPE	Personal Protective Equipment
ppm	parts per million
PRD	Permanent Record Dosimeter
R	Roentgen
RA	Radiological Advisor
RAC	Regional Assistance Committee
RADEF	Radiological Defense
RC	Reception Center
RCM	Reception Center Manager
RCS	Reactor Containment System
RDO	Radiological Defense Officer
rem	radiation exposure man
REP	Radiological Emergency Preparedness
RERP	Radiological Emergency Response Plan
RESA	Regional Education Service Agency
RIMC	Radiological Instrumentation, Maintenance and Calibration
RO	Radiological Officer
RRA	Resident Radiological Analyst
SAE	Site Area Emergency
SEOC	State Emergency Operations Center
SIP	Shelter-in-Place
SLRCS	Supplementary Leak Collection and Release System
SNB	Special News Bulletin
SOG	Standard Operating Guideline
SOP	Standard Operating Procedure

ACRONYM	DESCRIPTION
TACP	Traffic and Access Control Point
TARC	Triangle Amateur Radio Club
TCP	Traffic Control Point
TEDE	Total Effective Dose Equivalent
THD	Technological Hazards Division
TLD	Thermoluminescent Dosimeter
UE	Unusual Event
UHF	Ultra-High Frequency
URI	Unified RASCAL Interface
VHF	Very High Frequency
WPFD	West Point Fire Department

# APPENDIX E: Extent of Play Agreements

**Beaver Valley Power Station**

**State of Ohio and Columbiana County**

**Radiological Emergency Preparedness**

**Partial-Participation**

**Plume Exposure Pathway Exercise**

**June 12, 2018**

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## **State of Ohio Extent-of-Play Agreement**

### **2018 BEAVER VALLEY POWER STATION**

#### **Radiological Emergency Preparedness Partial-Participation**

Plume Exposure Pathway Exercise

## State of Ohio Extent-of-Play Agreement

### Overview

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**Introduction** This document constitutes the State of Ohio’s Extent-of-Play Agreement (EoPA) for the 2018 Beaver Valley Power Station Radiological Emergency Preparedness Plume Pathway Exercise being conducted during the later afternoon and evening hours on June 12, 2018. The exercise will be a Partial-Participation exercise for the State of Ohio. This Extent-of-Play Agreement was developed by the Exercise Planning Team in consultation with FEMA and the January 2016 edition of the FEMA REP Program Manual.

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### Contents

#### Topic

[General Information](#)

[Evaluation Area 1 – Emergency Operations Management](#)

[Evaluation Area 2 – Protective Action Decision Making](#)

[Evaluation Area 3 – Protective Action Implementation](#)

[Evaluation Area 4 – Field Measurement and Analysis](#)

[Evaluation Area 5 – Emergency Notification and Public Information](#)

[Evaluation Area 6 – Support Operation/Facilities](#)

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### Acronyms

BVPS	Beaver Valley Power Station
DRD	Direct Reading Dosimeter
ECL	Emergency Classification Level
EMA	Emergency Management Agency
EOF	Emergency Operations Facility
EPZ	Emergency Planning Zone
FEMA	Federal Emergency Management Agency
FMT	Field Monitoring Team
JPIC	Joint Public Information Center
JPIC	Joint Public Information Center
KI	Potassium Iodide
MSEL	Master Scenario Events List
NRC	Nuclear Regulatory Commission
ODH	Ohio Department of Health
ORO	Offsite Response Organization
OSHP	Ohio State Highway Patrol
PAD	Protective Action Decision
PAG	Protective Action Guide
PAR	Protective Action Recommendation
PIO	Public Information Officer
PRD	Permanent Reading Dosimeter
RIMC	Radiological Instrument Maintenance & Calibration
SEOC	State Emergency Operations Center
TACP	Traffic & Access Control Point

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## General Information

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**Exercise Scope** The State of Ohio will partially participate in this exercise, sufficient to support demonstrations by Columbiana County. In-sequence activities will be conducted on Tuesday June 12, 2018, at the following locations:

- Emergency Operations Facility (EOF)
- State Initial Notification Point (Ohio State Highway Patrol (OSHP) Dispatch Center)
- State Emergency Operations Center (SEOC)
  - State Executive Room
  - State Assessment Room
  - State Dose Assessment Room
  - State Joint Information Center (JIC)
- Beaver Valley Power Station (BVPS) Joint Public Information Center (JPIC)

No State activities will be demonstrated out-of-sequence, except to provide support to Columbiana County.

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**Exercise Support** The State will develop and implement a Master Scenario Events List (MSEL) sufficient to drive actual and simulated State play, support Columbiana County play, and to coordinate with the Commonwealth of Pennsylvania and the State of West Virginia. Sufficient Controllers will be on hand to provide injects to drive the scenario and control exercise play. All State Controller Injects and the MSEL will be provided to FEMA for review at least 30 days prior to the exercise.

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## General Information, Continued

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### Exercise Support

The State of Ohio will brief FEMA Evaluators regarding conduct of the exercise at the FEMA Pre-Exercise Meeting in the Columbiana County EOC on Monday at 2:00 p.m., June 11, 2018, and in the State EOC in Columbus, Ohio, at 10:00 a.m. on Tuesday, June 12, 2018.

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### Criteria

Criteria that will be demonstrated during this exercise and can be re-demonstrated immediately for credit, at the decision of the evaluator, include the following: 3.a.1, 3.b.1, 3.c.1., 3.c.2, 3.d.1, 6.a.1, 6.b.1, 6.c.1 and 6.d.1.

Re-demonstrations will be negotiated between the Lead Controller, Lead FEMA Evaluator, and the offsite response organization (ORO) and will be conducted only when the corrective action would not interfere with the flow of the exercise. Refresher training may be provided by ORO personnel and/or the Controller.

It is permissible to extend the evaluation time to accommodate the re-demonstration. Issues resolved as the results of a re-demonstration will be noted as Findings resolved through re-demonstration.

Criteria that may be re-demonstrated, as approved on a case-by-case basis by the DHS/FEMA Region V Regional Assistance Committee Chairman, include the following: 2.a.1, 2.b.1, 2.b.2, 3.d.2, 5.a.1 and 5.b.1.

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### Participating Organizations

Organizations participating in this exercise include:

- Ohio Department of Public Safety
- Ohio Emergency Management Agency
- Ohio Department of Health
- Ohio Environmental Protection Agency
- Ohio State Highway Patrol
- Department of Public Safety

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## General Information, Continued

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**State Field  
Participation**

State personnel to staff field positions will be pre-positioned in the local area at the following locations:

- BVPS EOF (Ohio EMA and ODH Liaisons)
  - BVPS JPIC (Ohio EMA Public Information Officer (PIO) and ODH Liaison)
  - Columbiana County (ODH Liaison and Ohio EMA Resident Radiological Analyst)
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## Evaluation Area 1 – Emergency Operations Management

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**Criterion 1.a.1** OROs use effective procedures to alert, notify and mobilize emergency personnel and activate facilities in a timely manner.

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**Extent-of-Play 1.a.1** The State Emergency Operations Center (SEOC) and the Ohio Highway Patrol Dispatch Center will receive initial notification over the BVPS Initial Notification Conference Line. Once the SEOC Dose Assessment Room is activated, all subsequent notifications by phone/fax communications will be received there.

The State will pre-stage the participating organizations that have responsibilities in the SEOC. They will remain in a prestaging room until notified of their mobilization. The State representatives assigned to the BVPS EOF, BVPS JPIC, and the Columbiana County EOC will be prepositioned in the area and arrive 10-20 minutes after the exercise begins to simulate travel time.

Personnel will pre-stage at the State EOC and wait for notification of mobilization prior to “deploying” to the SEOC.

The Dose Assessment, Executive, and Joint Information Center rooms will be pre-staged with equipment, such as computers and maps. The Assessment Room is already in operation 24 hours/day.

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**Criterion 1.b.1** Facilities are sufficient to support the emergency response.

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**Extent-of-Play 1.b.1** The State Emergency Operations Center has performed renovations to the JIC, Dose Assessment, and Assessment Rooms. Evaluators will be informed of the facility changes that have been made, and the facilities will be evaluated under this criterion.

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**Criterion 1.c.1** Key personnel with leadership roles for the ORO provide direction and control to that part of the overall response effort for which they are responsible.

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## Evaluation Area 1 – Emergency Operations Management, Continued

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<b>Extent-of-Play 1.c.1</b>	Direction and control of State activities will be demonstrated at the SEOC. The Executive Director of Ohio EMA will coordinate decisions on behalf of the Governor's Office from the SEOC Executive Room and the overall State response from the Executive Room and of the components of the SEOC. The Ohio Department of Health (ODH) is responsible for the determining the State Protective Action Recommendations (PARs) in the SEOC Dose Assessment Room and will provide periodic briefings to the SEOC Executive Group. The Situation Unit Leader from the Assessment Room will also provide periodic briefings to the SEOC Executive Group.
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<b>Criterion 1.d.1</b>	At least two communication systems are available, at least one operates properly, and communication links are established with appropriate locations. Communications capabilities are managed in support of emergency operations.
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<b>Extent-of-Play 1.d.1</b>	The primary means of communications between the SEOC, Columbiana County EOC, BVPS JPIC, and the EOF is by commercial and/or dedicated telephone. Backup communications will be demonstrated via a MARCS radio check immediately before the exercise.
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<b>Criterion 1.e.1</b>	Equipment, maps, displays, monitoring instruments, dosimetry, potassium iodide (KI) and other supplies are sufficient to support emergency operations.
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<b>Extent-of-Play 1.e.1</b>	The State will demonstrate the use of equipment, maps and displays to support emergency operations. The maps traditionally used in the SEOC will be available and used for exercise evaluation purposes.
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## Evaluation Area 2 – Protective Action Decision Making, Continued

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<b>Criterion 2.a.1</b>	OROs use a decision-making process, considering relevant factors and appropriate coordination, to ensure that an exposure control system, including the use of KI, is in place for emergency workers including provisions to authorize radiation exposure in excess of administrative limits or protective action guides.
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<b>Extent-of-Play 2.a.1</b>	<p>The SEOC Dose Assessment Unit will consider Protective Action Guidelines (PAGs) and Administrative Limits to develop recommendations, including KI, based on their technical evaluation of the available data. Recommendations will be briefed to the SEOC Executive Group and subsequently to the County EOC. The State and County will disseminate recommendations to their emergency workers. Simulated field monitoring data, appropriate to the scenario, will be provided to the SEOC Dose Assessment Unit via the Field Monitoring Team Coordinator Controller.</p> <p>If the scenario utilized for the exercise does not drive the decision making process, this criterion may be demonstrated by Evaluator interview.</p>
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<b>Criterion 2.b.1</b>	Appropriate protective action recommendations (PARs) are based on available information on plant conditions, field monitoring data, and Licensee and ORO dose projections, as well as knowledge of onsite and offsite environmental conditions.
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<b>Extent-of-Play 2.b.1</b>	<p>The SEOC Dose Assessment Unit will evaluate Licensee information and complete independent dose projections and assessment, as appropriate, based on that information and field monitoring data. SEOC Dose Assessment Unit will evaluate the data and brief PARs to the SEOC Executive Room. Approved PARs will then be forwarded to the County EOC via a conference line.</p> <p>If the scenario utilized for the exercise does not drive the decision making process, this criterion may be demonstrated by Evaluator interview.</p>
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<b>Criterion 2.b.2</b>	A decision-making process involving consideration of appropriate factors and necessary coordination is used to make protective action decisions (PADs) for the general public (including the recommendation for the use of KI, if ORO policy).
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## Evaluation Area 2 – Protective Action Decision Making

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**Extent-of-Play 2.b.2** The Governor, or his designee, will demonstrate the ability to make appropriate PARs based on technical information from the SEOC Dose Assessment Unit. Recommendations concerning the use of KI for the general public, institutionalized individuals, and emergency workers are the responsibility of ODH. The recommendations are made in accordance with the ODH KI Directive and will accompany the PAR.

Coordination will take place by the SEOC Executive Group with Columbiana County to ensure consideration of local needs. After the PAD is made by Columbiana County, the County will disseminate protective actions to the general public.

If the scenario utilized for the exercise does not drive the decision making process, this criterion may be demonstrated by Evaluator interview.

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**Criterion 2.c.1** Protective action decisions are made, as appropriate, for groups of persons with disabilities and those with access/functional needs

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**Extent-of-Play 2.c.1** The recommendation regarding KI is issued by ODH in the SEOC Dose Assessment and accompanies the PAR. Upon being briefed to and approved by the Executive Group, it is then forwarded to Columbiana County for implementation.

A no/minimal release scenario would not necessarily require PARs/PADs. This criterion will be met as long as the decision making process is demonstrated and the result is consistent with the exercise scenario.

If the scenario utilized for the exercise does not drive the decision making process, this criterion may be demonstrated by Evaluator interview. State and county representatives will participate in this discussion together and/or via conference line to allow for fuller exploration of the topic.

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**Criterion 2.d.1** Radiological consequences for the ingestion pathway are assessed and appropriate protective action decisions are made based on the ORO's planning criteria.

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## Evaluation Area 2 – Protective Action Decision Making,

Continued

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<b>Extent-of-Play 2.d.1</b>	Not Selected - The State successfully demonstrated this criterion during the 2012 Perry Nuclear Power Plant exercise.
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<b>Criterion 2.e.1</b>	Timely post-plume phase relocation, reentry, and return decisions are made and coordinated as appropriate, based on assessments of the radiological conditions and criteria in the ORO's plan and/or procedures.
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<b>Extent-of-Play 2.e.1</b>	Not Selected - The State successfully demonstrated this criterion during the 2012 Perry Nuclear Power Plant exercise.
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## Evaluation Area 3 – Protective Action Implementation

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<b>Criterion 3.a.1</b>	The OROs issue appropriate dosimetry, KI, and procedures, and manage radiological exposure to emergency workers in accordance with the plans/procedures. Emergency workers periodically and at the end of each mission read their dosimeters and record the readings on the appropriate exposure record or chart. OROs maintain appropriate record-keeping of the administration of KI to emergency workers.
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<b>Extent-of-Play 3.a.1</b>	Direct Reading Dosimeters (DRDs), Permanent Record Dosimeters (PRDs) and KI will be issued to State of Ohio workers who have assignments in the BVPS 10-mile EPZ.  If the scenario does not provide for the demonstration of turn back limits, turn back values will be covered by interview with the Evaluator.
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<b>Criterion 3.b.1</b>	KI and appropriate instructions are available if a decision to recommend use of KI is made. Appropriate record-keeping of the administration of KI for institutionalized individuals and the general public is maintained.
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## Evaluation Area 3 – Protective Action Implementation, Continued

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<b>Extent-of-Play 3.b.1</b>	The ODH obtained KI from the U.S. NRC for members of the general public. If the scenario utilized for the exercise does not drive this process, this criterion may be demonstrated by Evaluator interview.
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<b>Criterion 3.c.1</b>	Protective action decisions are implemented for persons with disabilities and access/functional needs other than schools within areas subject to protective actions.
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<b>Extent-of-Play 3.c.1</b>	N/A - This is a County function.
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<b>Criterion 3.c.2</b>	OROs/school officials implement protective actions for schools
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<b>Extent-of-Play 3.c.2</b>	N/A - This is a County function.
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<b>Criterion 3.d.1</b>	Appropriate traffic and access control is established. Accurate instructions are provided to traffic and access control personnel.
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<b>Extent-of-Play 3.d.1</b>	The State Assessment Room in coordination with the SEOC Executive Group will procedurally request air, water and rail traffic restrictions within the Emergency Planning Zone, as applicable to the scenario. The OSHP coordinates directly with County law enforcement to provide State TACP support. (See Columbiana County's Extent-of-Play Agreement for additional information.)
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## Evaluation Area 3 – Protective Action Implementation, Continued

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**Criterion 3.d.2** Impediments to evacuation are identified and resolved.

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**Extent-of-Play  
3.d.2** N/A - This is a County function.

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**Criterion 3.e.1** The ORO demonstrates the availability and appropriate use of adequate information regarding water, food supplies, milk and agricultural production within the ingestion exposure pathway emergency planning zone for implementation of protective actions.

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**Extent-of-Play  
3.e.1** Not Selected - The State successfully demonstrated this criterion during the 2012 Perry Nuclear Power Plant exercise.

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**Criterion 3.e.2** Appropriate measures, strategies and pre-printed instructional material are developed for implementing protective action decisions for contaminated water, food products, milk and agricultural production.

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**Extent-of-Play  
3.e.2** Not Selected - The State successfully demonstrated this criterion during the 2012 Perry Nuclear Power Plant exercise.

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**Criterion 3.f.1** Decisions regarding controlled re-entry of emergency workers and relocation and return of the public during the post-plume phase are coordinated with appropriate organizations and implemented.

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**Extent-of-Play  
3.f.1** Not Selected - The State successfully demonstrated this criterion during the 2012 Perry Nuclear Power Plant exercise.

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## Evaluation Area 4 – Field Measurement and Analysis

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**Criterion 4.a.1** [RESERVED]

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## Evaluation Area 4 – Field Measurement and Analysis, Continued

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**Criterion 4.a.2** Field teams (2 or more) are managed to obtain sufficient information to help characterize the release and to control radiation exposure.

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**Extent-of-Play 4.a.2** Not Selected - The State FMTs and Sample Screening Point will not be demonstrated in this exercise.

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**Criterion 4.a.3** Ambient radiation measurements are made and recorded at appropriate locations, and radioiodine and particulate samples are collected. Teams will move to an appropriate low background location to determine whether any significant (as specified in the plan and/or procedures) amount of radioactivity has been collected on the sampling media.

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**Extent-of-Play 4.a.3** Not Selected - The State FMTs and Sample Screening Point will not be demonstrated in this exercise.

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**Criterion 4.b.1** Field teams (2 or more) demonstrate the capability to make appropriate measurements and to collect appropriate samples (e.g., food crops, milk, water, vegetation, and soil) to support adequate assessments and protective action decision-making.

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**Extent-of-Play 4.b.1** Not Selected - The State successfully demonstrated this criterion during the 2012 Perry Nuclear Power Plant exercise.

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## Evaluation Area 4 – Field Measurement and Analysis, Continued

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**Criterion 4.c.1**      The laboratory is capable of performing required radiological analyses to support protective action decisions.

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**Extent-of-Play 4.c.1**      Not Selected - The State successfully demonstrated this criterion during the 2012 Perry Nuclear Power Plant exercise.

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## Evaluation Area 5 – Emergency Notification and Public Information

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**Criterion 5.a.1**      Activities associated with primary alerting and notification of the public are completed in a timely manner following the initial decision by authorized off-site emergency officials to notify the public of an emergency situation. The initial instructional message to the public must include as a minimum the elements required by current REP guidance.

Identification of the State or local government organization and the official with the authority for providing the alert signal and instructional message.

Identification of the commercial nuclear power plant and a statement that an emergency situation exists at the plant.

Reference to REP-specific emergency information (e.g., brochures and information in telephone books) for use by the general public during an emergency.

A closing statement asking the affected and potentially affected population to stay tuned for additional information.

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**Extent-of-Play 5.a.1**      N/A – This is a County function.

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**Criterion 5.a.2**      [RESERVED]

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## Evaluation Area 5 – Emergency Notification and Public Information, Continued

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<b>Criterion 5.a.3</b>	Backup alert and notification of the public is completed within a reasonable time following the detection by the ORO of a failure of the primary alert and notification system.
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<b>Extent-of-Play 5.a.3</b>	N/A - This is a County function.
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<b>Criterion 5.a.4</b>	Activities associated with FEMA-approved exception areas (where applicable) are completed within 45 minutes of the initial decision by authorized offsite emergency officials to notify the public of an emergency situation.
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<b>Extent-of-Play 5.a.4</b>	N/A – The State of Ohio has no FEMA-approved Exception Areas at this time.
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<b>Criterion 5.b.1</b>	OROs provide accurate subsequent emergency information and instructions to the public and the news media in a timely manner.
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<b>Extent-of-Play 5.b.1</b>	<p>The State PIO and a representative from ODH will be present at the BVPS JPIC to address technical aspects of State PARs being implemented and the activities taking place at the State level. Public information representatives from Ohio EMA will be present in the SEOC (State JIC) to communicate with the BVPS JPIC.</p> <p>A Public Inquiry telephone line will be established and demonstrated in the State JIC via Controller injects. Sufficient injects will be used to allow State JIC personnel to identify and respond to trends.</p>
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## Evaluation Area 6 – Support Operation/Facilities, Continued

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<b>Criterion 6.a.1</b>	The reception center has appropriate space, adequate resources, and trained personnel to provide monitoring, decontamination, and registration of evacuees and/or emergency workers.
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<b>Extent-of-Play 6.a.1</b>	N/A - This is a County function.
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<b>Criterion 6.b.1</b>	The facility/ORO has adequate procedures and resources to accomplish monitoring and decontamination of emergency workers and their equipment and vehicles.
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<b>Extent-of-Play 6.b.1</b>	N/A - This is a County function.
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<b>Criterion 6.c.1</b>	Managers of congregate care facilities demonstrate that the centers have resources to provide services and accommodations consistent with American Red Cross planning guidelines. Managers demonstrate the procedures to assure that evacuees have been monitored for contamination and have been decontaminated as appropriate prior to entering congregate care facilities.
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<b>Extent-of-Play 6.c.1</b>	N/A - This is a County function.
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<b>Criterion 6.d.1</b>	The facility/ORO has the appropriate space, adequate resources, and trained personnel to provide transport, monitoring, decontamination, and medical services to contaminated injured individuals.
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<b>Extent-of-Play 6.d.1</b>	N/A - This is a County function.
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## **Columbiana County Extent-of-Play Agreement**

### **2018 BEAVER VALLEY POWER STATION**

#### **Radiological Emergency Preparedness Partial-Participation**

Plume Exposure Pathway Exercise



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## 1. Introduction

This document constitutes Columbiana County's Extent-of-Play Agreement (EoPA) for the 2018 Beaver Valley Power Station Full-Scale Radiological Emergency Preparedness Plume Exposure Pathway Exercise for Columbiana County and a Partial-Participation Exercise for the State of Ohio to be conducted on June 12, 2018. This EoPA was developed by the Exercise Planning Team in consultation with FEMA and the January 2016 edition of FEMA REP Program Manual.

The enumerated items below address the overall concept and conduct of the exercise and are followed by the Assessment Area-specific elements of the EoPA.

## 2. General Concepts

An emergency plan is drafted to address the generally expected conditions of an emergency. Not everything in the emergency plan may be applicable for a given scenario. The main purpose of an emergency plan is to assemble sufficient expertise and officials so as to properly respond to the events as they occur. The responders should not be so tied to a plan that they cannot take actions that are more protective of the public. Therefore, if, by not following the plan, the responders protect the public equally as well as provided in the plan, it should be noted for possible modification of the plan, but not classified as a negative incident. Furthermore, if by following the plan there is a failure to protect the public health and safety, it should be noted so that the appropriate assessment can be applied and the plan can be modified.

## 3. Exercise Scope

The exercise has both In-Sequence and Out-of-Sequence demonstration activities.

**In-Sequence** activities will occur during the late afternoon and evening hours of June 12, 2018, from approximately 1600-2200 Eastern Daylight Time (EDT). Columbiana County will fully participate in this exercise, sufficient to support the demonstrations described in this EoPA. The State of Ohio will partially participate sufficient to support Columbiana County response operations. (See State of Ohio Extent-of-Play Agreement).

In-Sequence activities will be conducted at the following locations:

- County Initial Notification Point/Public Alert & Warning Point (Sheriff's Office Dispatch Center)
  - Emergency Operations Center (EOC)

- Joint Public Information Center (JPIC) State PIO will represent the county

**Out of Sequence** activities will be managed by the Lead Controller at each field location, and will be run independently. All demonstrations will commence promptly and, barring any complications, not continue past the end time. (See Table – 1)

#### 4. Demonstration Windows

Demonstration windows are those periods of time designated in the exercise during which specified demonstrations will be accomplished.

The schedule of activities [including OROs, locations, dates, and times for In-Sequence, Field and Out-of-Sequence Play activities] are summarized in Table 1 below. Additional information is provided in Attachment 1.

**Table 1 – Schedule of Activities**

Activity	ORO/Location	Date/Time
MS-1 Hospital Exercise	East Palestine Fire/EMS Salem Regional Hospital	Successfully Demonstrated on September 27, 2017
Emergency Worker Mon/Decon Center	Negley Fire/EMS, American Red Cross, CC Health Department	Monday June 11, 2018  7:00 p.m. - 9:00 p.m. EDT
Backup Route Alerting/ Route Verification	Calcutta Fire Department	Monday June 11, 2018  7:00 p.m. – 9:00 p.m.

Traffic/Access Control	Ohio State Highway Patrol – OSHP Post, Lisbon, OH	Tuesday June 12, 2018  9:00 a.m. – 11:00 a.m. EDT
EV-2 School Interview	East Liverpool School District - East Liverpool Admin Office	Tuesday June 12, 2018  10:00 a.m. – 12:00 p.m. EDT
Initial Notification	Sheriff's Office Dispatch Center	Tuesday June 12, 2018  4:00 p.m. – 5:00 p.m. EDT

Columbiana County EOC Operations	Columbiana County EMA	Tuesday June 12, 2018 4:00 p.m. – 10:00 p.m.
Congregate Care Center	American Red Cross United Local School Complex	Tuesday June 12, 2018 3:00 p.m. – 5:00 p.m.
Reception Center – Evacuee & Evacuee Vehicle Mon/Decon	West Point Fire Department - Beaver Local Sports Complex	Wednesday June 13, 2018 7:00 p.m. – 9:00 p.m. EDT

## 5. Re-demonstrations

During the week of the exercise play, ORO Participants may re-demonstrate for credit on June 11 thru 14, 2018, any activity that the ORO or FEMA determines was not performed satisfactorily, as follows:

Criteria that can be demonstrated during this exercise and that can be re-demonstrated immediately for credit, at the decision of the Evaluator, include the following:

- 3.a.1, 3.b.1, 3.c.1, 3.c.2, 3.d.1, 6.a.1, 6.b.1, 6.c.1, and 6.d.1.

Criteria that may be re-demonstrated, as approved on a case-by-case basis by the Chairman of the DHS/FEMA Region 5 Regional Assistance Committee, include the following:

- 2.a.1, 2.b.1, 2.b.2, 3.d.2, 5.a.1, and 5.b.1.

Re-demonstrations will be negotiated between the Lead Controller, Lead FEMA Evaluator and the ORO and conducted only when the corrective action would not interfere with the flow of the exercise. Refresher training may be provided by ORO personnel and/or Controllers.

It is permissible to extend the evaluation time to accommodate the re-demonstration. Issues resolved as the result of a re-demonstration will be noted as Findings resolved through re-demonstration.

- 6. Beaver Valley Power Station:** The BVPS facility normally uses Off-Watch Section personnel to participate in the exercise. The plant's simulated events, radiation readings, and emergency classifications will trigger offsite actions.

**7. Offsite Response Functions, Columbiana County:**

Emergency Operations Center

- Emergency Operations Management
- Protective Action Decision-Making
- Protective Action Implementation
- Emergency Notification & Public Information
- Support Operations/Facilities

**8. Participating Organizations**

- County and local Offsite Response Organizations that will participate in this exercise may include but are not limited to the following:
- Columbiana County Board of Commissioners
  - Columbiana County Emergency Management Agency
  - Columbiana County Sheriff's Office
  - Ohio State Highway Patrol
  - Columbiana County Health Department
  - Negley Fire Department
  - Calcutta Fire Department
  - East Liverpool School District
  - West Point Fire Department
  - Columbiana County and State of Ohio highway departments
  - American Red Cross

**9. Coordination between Columbiana, Hancock, and Beaver counties.**

- To the extent possible, Protective Action Decisions will be discussed by the affected counties and states.
- Individual Protective Action Decisions will be reached by each county.
- To the extent possible, EAS messages and siren soundings will be coordinated by the affected counties.

**10. Request for Resources from BVPS or Beaver County:**

The Beaver Valley Power Station is located entirely in Beaver County Pennsylvania. Requests for personnel and/or material resources will be coordinated through the Beaver County EOC with other On-Site and Off-Site organizations in accordance with plans and procedures.

**11. Exercise Support**

Columbiana County will develop and implement a Master Scenario Events List (MSEL) sufficient to drive actual and simulated County play. Sufficient Controllers will be on hand to provide injects to drive

the scenario and coordinate demonstration activities with the FEMA Lead Evaluator and ORO. To the extent possible Controller Injects and the MSEL will be provided to FEMA for review 30 days prior to the exercise.

**12. Exercise Controllers:**

FirstEnergy Nuclear Operating Company (FENOC) will coordinate Controllers at Columbiana County locations. Controllers will interact with Players to the extent necessary to fulfill their responsibilities. Coaching of Players by Controllers is not permitted, except to provide training to Players awaiting a re-demonstration. Re-demonstration can only occur with FEMA approval [see #5].

**13. FEMA Evaluators:**

Federal Evaluators will be present at the Columbiana County EOC and at field locations to evaluate Player response to the actual and simulated events in the exercise scenario. At those demonstration locations where more than one FEMA Evaluator is present, a Lead Evaluator will be designated by FEMA.

**14. Players**

Players are encouraged to use and share any available resources (e.g., written plans, procedures and checklists and/or consult with co-workers) in providing responses to Evaluators.

**15. Demonstration Criteria impacted by No/Minimal Release and/or Limited EAL Escalations:**

A no/minimal release scenario would not necessarily require Protective Action Recommendations and Protective Action Decisions (PARs/PADs), including the use of KI, to limit the exposure of the public and/or emergency workers. These Evaluation Criteria will be met as long as the decision making process is adequately demonstrated in accordance with plans and procedures and the result is consistent with the exercise scenario. Demonstration Criteria impacted by this type of scenario will be demonstrated per guidance provided in the January, 2016, REP Program Manual, Part IV, Section G.

**16. Termination**

- The Lead Controller in the Columbiana County EOC will coordinate the Exercise Termination with the Ohio EOC, the BVPS EOF, and the EOCs in Beaver County and Hancock County.

- Field Locations/Out of Sequence Demonstrations will be terminated by the Lead Controller at each location. The termination will be based on the completion of the objectives. The termination can happen sooner than the identified end time.

## ASSESSMENT AREA 1 – EMERGENCY OPERATIONS MANAGEMENT

### Sub-element 1.a – Mobilization

***Criterion 1.a.1: OROs use effective procedures to alert, notify, and mobilize emergency personnel and activate facilities in a timely manner. (NUREG-0654/ FEMA-REP-1, A.1.a, e; A.3, 4; C.1,4, 6; D.4; E.1, 2; H.3, 4)***

#### EXTENT OF PLAY

- Demonstrate the capability to receive notification of an emergency situation from the Licensee.
- Demonstrate the activation of facilities for immediate use by mobilized personnel when they arrive to begin emergency operations.
- Activation of facilities will be completed in accordance with the plan and/or procedures.
- Personnel will be pre-staged. This pre-staging will be for all locations, to include the EOC, field locations and any out-of-sequence demonstrations. Activation of positions/facilities will not begin until notification/Controller inject. Activation procedures will be described via interview.
- Twenty-four (24) Hour Staffing will be demonstrated by roster. The FEMA Lead Evaluator will be provided with a copy of the roster for each shift and a copy of all sign-in sheets for each activity.

### Sub-element 1.b – Facilities

***Criterion 1.b.1: Facilities are sufficient to support the emergency response. (NUREG-0654/FEMA-REP-1, H.3; G.3.a; J.10.h; J.12; K.5.b)***

#### EXTENT OF PLAY

The facilities in bold type below will be evaluated for the ability to support an emergency response.



Criterion 1.b.1 Facility demonstration dates for the current 8-Year cycle are as follows:

Facility	Last Demonstrated
Beaver Local Sports Complex – Monitoring and Decontamination	June 14 2014
Negley Fire Department – Monitoring and Decontamination	June 13, 2016
Emergency Operations Center	June 14 2014
Joint Information Center	N/A
<b>United Local School Complex    Mass Care Facility</b>	<b>2018 Exercise June 12, 2018</b>

#### Sub-element 1.c – Direction and Control

***Criterion 1.c.1: Key personnel with leadership roles for the ORO provide direction and control to that part of the overall response effort for which they are responsible. (NUREG-0654/FEMA-REP-1, A.1.d; A.2.a, b; A.3; C.4, 6)***

##### EXTENT OF PLAY

Leadership personnel will demonstrate the ability to carry out essential functions of the response effort, for example: keeping the staff informed through periodic briefings and/or other means, coordinating with other appropriate response organizations, and ensuring timely completion of requirements and requests.

- To the extent possible, EAS messages and siren soundings will be coordinated by the affected counties.

#### Sub-element 1.d – Communications Equipment

***Criterion 1.d.1: At least two communication systems are available, at least one operates properly, and communication links are established and maintained with appropriate locations. Communications capabilities are managed in support of emergency operations. (NUREG-0654/FEMA-REP-1, F.1, 2)***

##### EXTENT OF PLAY

- Demonstrate availability and operability of a primary and at least one backup system at the beginning of an exercise.

- Telephone and radio communications will be available at the EOC throughout the demonstration. At least one means of communication will be operable throughout all other demonstrations.
- Demonstrate the capability to manage the communication systems and ensure that all message traffic is handled timely without undue delays that might disrupt the conduct of emergency operations.

#### **Sub-element 1.e – Equipment and Supplies to Support Operations**

***Criterion 1.e.1: Equipment, maps, displays, monitoring instruments, dosimetry, potassium iodide (KI) and other supplies are sufficient to support emergency operations (NUREG-0654/FEMA-REP-1, H.7, 10; I.7, 8, 9; J.10.a, b, e; J.11, 12; K.3.a; K.5.b)***

#### **EXTENT OF PLAY**

- Dosimetry and KI have been pre-distributed to ORO's in Columbiana County.
- Sufficient quantities of direct-reading and permanent record dosimetry are available for issuance to additional emergency workers if needed.
- Monitoring kits and Dosimetry are exchanged annually. Documentation will be included in the 2017 Annual Letter of Certification and will also be available for viewing at the Columbiana County EOC.
- The Ohio Department of Health (ODH), through local health departments, makes KI available to the general public. KI for the General Public is also stockpiled at the County Health Department and transported to the Reception Center for distribution to the General Public, as needed. Records certifying types and quantities of KI on hand at the County Health Department and exercise demonstration locations will be made available for inspection by the assigned Evaluator.
- Demonstration locations will be supported with adequate equipment, maps, displays, dosimetry and KI, as appropriate, in accordance with plans and procedures.

## ASSESSMENT AREA 2 – PROTECTIVE ACTION DECISION-MAKING

### Sub-element 2.a – Emergency Worker Exposure Control

***Criterion 2.a.1: OROs use a decision-making process, considering relevant factors and appropriate coordination, to ensure that an exposure control system, including the use of KI, is in place for emergency workers, including provisions to authorize radiation exposure in excess of administrative limits or protective action guides. (NUREG-0654/FEMA-REP-1, C.6; J.10. e, f; K.4)***

#### EXTENT OF PLAY

- The capability to make decisions concerning the authorization of Emergency Worker exposure levels in excess of pre-authorized levels will be procedurally discussed.
- Dosimeter packets that include KI are pre-distributed to OROs yearly, the packets are given to emergency workers as per the organization's SOG, as needed.
- The Ohio Department of Health is responsible for recommending the taking of KI.
- Should the scenario dictate a Direct-Reading Dosimeter (DRD) correction factor for the emergency workers, the reduction factors will be limited to emergency workers within the 10-mile EPZ. DRD correction factors are established by the Ohio Emergency Management Agency. (See the State of Ohio Extent-of-Play Agreement for details concerning the State's role regarding this criterion.)
- The decision to ingest or to not ingest KI will be driven by the scenario.
- If the scenario and/or Controller-injected information drives decision-making regarding whether to authorize radiation exposure in excess of administrative limits for County emergency workers, Columbiana County will support the State's demonstration of this part of Criterion 2.a.1 consistent with the scenario and/or Controller-injected information.
- This criterion will be met as long as the appropriate decision making process is demonstrated and the result is consistent with the exercise scenario.

### Sub-element 2.b. – Radiological Assessment and Protective Action Recommendations and Decisions for the Plume Phase of the Emergency

***Criterion 2.b.1: Appropriate protective action recommendations (PARs) are based on available information on plant conditions, field monitoring data, and licensee and ORO dose projections, as well as knowledge of onsite and offsite environmental conditions. (NUREG-0654/FEMA-REP-1, I.10 and Supplement 3)***

## EXTENT OF PLAY

N/A – Columbiana County does not demonstrate this criterion; it relies on the State of Ohio and Beaver Valley Power Station.

***Criterion 2.b.2: A decision-making process involving consideration of appropriate factors and necessary coordination is used to make protective action decisions (PADs) for the general public (including the recommendation for the use of KI, if ORO policy). (NUREG-0654/FEMA-REP-1, A.3; C.4, 6; D.4; J.9; J.10.f, m)***

## EXTENT OF PLAY

- Utility and State Protective Action Recommendations will be received and assessed by the county.
- A decision-making process involving “consideration of appropriate factors and necessary coordination” will be used to make Protective Action Decisions “as appropriate” for the general public (including the recommendation for the use of KI) within Columbiana County’s 10-mile EPZ.
- The County will demonstrate the capability to communicate the contents of decisions to the affected jurisdictions.
- To the extent possible, Protective Action Decisions will be coordinated with the affected counties and states.
- The Ohio Department of Health (ODH) makes KI available to the general public through local health departments. KI for the General Public is also stockpiled at the County Health Department and transported to the Reception Center for distribution to the General Public as needed
- The County will demonstrate the capability to implement ODH’s KI Protective Action Recommendations for the general public. This action is scenario driven. If the scenario utilized for the exercise does not drive the process, this criterion may be demonstrated by Controller-facilitated discussion. State and county representatives will participate in this discussion together and/or via conference line (as appropriate) to allow for fuller exploration of the topic.
- This criterion will be met as long as an appropriate decision making process is demonstrated and the result is consistent with the exercise scenario.

### **Sub-element 2.c – PAD Consideration for the Protection of Persons with Disabilities and Access/Functional Needs**

***Criterion 2.c.1: Protective action decisions are made, as appropriate, for groups of persons with disabilities and access/functional needs. (NUREG-0654/FEMA-REP-1, D.4; J.9; J.10.d, e)***

EXTENT OF PLAY

- The County will demonstrate Protective Action Decisions involving consideration for Protection of Special Populations as driven by the scenario.
- If the scenario utilized for the exercise does not drive the decision making process, this criterion may be demonstrated by Controller-facilitated discussion. State and county representatives will participate in this discussion together and/or via conference line (as appropriate) to allow for fuller exploration of the topic.
- This criterion will be met as long as the decision making process is demonstrated and the result is consistent with the exercise scenario.

**Sub-element 2.d. – Radiological Assessment and Decision Making for the Ingestion Exposure Pathway**

***Criterion 2.d.1: Radiological consequences for the ingestion pathway are assessed and appropriate protective action decisions are made based on the ORO's planning criteria. (NUREG-0654/FEMA-REP-1, A.3; C.1, 4; D.4; J.9,11)***

EXTENT OF PLAY

N/A –This sub-element is a State function and will not be demonstrated during this exercise.

**Sub-element 2.e. – Radiological Assessment and Decision Making Concerning Post-Plume Phase Relocation, Reentry, and Return**

***Criterion 2.e.1: Timely post-plume phase relocation, reentry, and return decisions are made and coordinated as appropriate, based on assessments of the radiological conditions and criteria in the ORO's plan and/or procedures. (NUREG-0654/FEMA-REP-1, I.10; J.9; K.3.a; M.1)***

EXTENT OF PLAY

N/A –This sub-element will not be demonstrated during this exercise.

## ASSESSMENT AREA 3 – PROTECTIVE ACTION IMPLEMENTATION

### Sub-element 3.a – Implementation of Emergency Worker Exposure Control

***Criterion 3.a.1: The OROs issue appropriate dosimetry, KI, and procedures and manages radiological exposure to emergency workers in accordance with the plans/procedures. Emergency workers periodically and at the end of each mission read their dosimeters and record the readings on the appropriate exposure record or chart. OROs maintain appropriate record-keeping of the administration of KI to emergency workers. (NUREG-0654/FEMA-REP-1, J.10.e; K.3.a, b; K.4)***

#### EXTENT OF PLAY

- In Columbiana County, exposure control equipment is pre-distributed to the following locations:

Location	ORO
• Emergency Worker Decontamination Center	Negley Fire Department
• Reception Center	West Point Fire Department
• Traffic/Access Control	OSHP
• Route Verification	Calcutta Fire Department
• Local School District Bus Drivers	East Liverpool School District.

- Radiation exposure control equipment will be assigned to workers who may be exposed to radioactive material. Job and radiological briefings will be conducted at required locations and participants will be available for evaluator interview on their knowledge of radiation exposure control.
- For the OOS activities, if weather conditions are such that wearing of PPE may create a health risk, the Lead Controller and Lead Evaluator will confer regarding the manner in which the use of PPE is demonstrated. This decision will be made prior to the start time of the activity, or when the risk becomes evident to the Controller and/or Evaluator.
- Emergency workers will explain the procedures to be followed when Turn-Back values are reached.
- By interview, the Supervisor/Exposure Coordinator will demonstrate the actions described in the procedures to determine whether to replace a worker, authorize a worker to incur additional exposures or to take other actions.
- If the scenario does not require the taking of KI the Supervisor/Exposure Coordinator will describe the procedure to maintain a list of emergency

workers who have ingested KI, including the date(s), time(s) they were instructed to ingest KI. Players will not actually ingest KI as part of their demonstration.

- The County Radiological Officer will coordinate with Supervisor/Exposure Coordinators to monitor radiological exposure by county emergency workers.
- Should the scenario dictate a reduction factor for the emergency worker exposure limit, the reduction will be limited to emergency workers within the EPZ
- Advisories from the EOC to field personnel may be simulated via Controller inject.
- Radiological briefings will be provided to address exposure limits and procedures to replace those approaching limits and how permission to exceed limits is obtained from the state. Emergency workers will also be briefed on when to take KI and on whose authority.
- The County RO will issue dosimetry and conduct a radiological briefing to a (simulated) offsite responder.

**Sub-element 3.b – Implementation of KI Decision for Institutionalized Individuals and the General Public**

***Criterion 3.b.1: KI and appropriate instructions are available if a decision to recommend use of KI is made. Appropriate record-keeping of the administration of KI for institutionalized individuals and the general public is maintained. (NUREG-0654/FEMA-REP-1, J.10.e, f)***

**EXTENT OF PLAY**

- When KI is distributed, the package insert is included. These instructions list the recommended doses for KI, potential side-effects, and conditions under which KI should not be taken.
- The Ohio Department of Health makes the recommendation to take KI.
- Institutionalized individuals are assisted in the taking of KI by their care givers, the date(s), time(s) and dose are documented as for other medications.
- This criterion will be met as long as the decision making process is demonstrated and the result is consistent with the exercise scenario.

**Sub-element 3.c – Implementation of Protective Actions for Persons with Disabilities and Access/Functional Needs**

***Criterion 3.c.1: Protective action decisions are implemented for persons with disabilities and access/functional needs other than schools within areas subject to protective actions. (NUREG-0654/FEMA-REP-1, J.10.c, d, e, g)***

**EXTENT OF PLAY**

- The County methodology for processing persons with disabilities and access/functional needs may be explained procedurally at the County EOC.
- Contact with Special Facilities, Reception Centers and Transportation Providers may be simulated and will be documented.
- Protective actions for local persons with disabilities and access/functional needs individuals will be demonstrated in conjunction with the Calcutta Fire Department Route Verification/Back-up Route Alerting in the time window 7:00 p.m. – 9:00 p.m. EDT Monday June 11, 2018.
- The names, locations and contact information of individuals with identified special needs are maintained on a list at their respective fire departments and the county EOC. Copies of these lists will not be provided to the Evaluators; however, Evaluators will be allowed to inspect the lists during the exercise.

***Criterion 3.c.2: OROs/School officials implement protective actions for schools. (NUREG-0654/FEMA-REP-1, J.10.c, d, e, g)***

**EXTENT OF PLAY**

Schools will not be in session during the exercise demonstration window. The School Services Officer position in the County EOC will be demonstrated on Tuesday June 12, 2018 4:00 p.m. – 10:00 p.m. EDT. Since the EV-2 School demonstration will be conducted out of sequence relative to the EOC demonstration, most of the School Services Officer demonstration will be conducted by interview, and communications with school district superintendents will be simulated. The County School Service Officer will demonstrate in accordance with the RERP and his SOG.

The East Liverpool School District will demonstrate this (EV-2) criterion by interview in the Superintendent's Office between the hours of 10:00 a.m. – 12:00 p.m. EDT on Tuesday June 12, 2018.

- The Superintendent, Principal, Bus Driver Supervisor, and Bus Driver will be available for interview.
- Officials of the East Liverpool School District will demonstrate the implementation process regarding protective actions for the students.



- Officials of the District will describe the procedures that would be followed to implement canceling of the school day, dismissing early, or sheltering.
- If relocation is the implemented protective action, applicable activities to coordinate and complete the relocation of students to the host school will be discussed through an interview with the Evaluator.
- Officials of the school system will demonstrate the capability to develop and provide timely information to the general public and the media on the status of protective actions for schools.
- KI for school children will be procedurally demonstrated. The distribution, documentation, and taking KI will be simulated.
- Exposure control for bus drivers, including KI, will be demonstrated via interview with the Bus Supervisor and Bus Driver.
- The transportation of school children will be simulated and may be discussed through interview with the Evaluator.
- Activities may be driven by Controller Injects.

#### **Sub-element 3.d. – Implementation of Traffic and Access Control**

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to implement protective action plans/procedures, including relocation and restriction of access to evacuated/sheltered areas. This Sub-element focuses on selecting, establishing, and staffing of traffic and access control points, and removal of impediments to the flow of evacuation traffic.

***Criterion 3.d.1: Appropriate traffic and access control is established. Accurate instructions are provided to traffic and access control personnel. (NUREG-0654/FEMA-REP-1, A.3; C.1,4; J.10.g, j)***

#### **EXTENT OF PLAY**

The Columbiana County Emergency Operations Center (CCEOC) staff will demonstrate the capability to identify appropriate traffic and access control points, consistent with protective actions.

- The capability to provide instructions to TCP/ACP providers will be demonstrated through an interview with the Law Enforcement Officer in the CCEOC.
- The TCP/ACP function will be demonstrated by an interview with the Ohio State Highway Patrol at the OSHP Post in Lisbon, OH. This demonstration will be conducted out-of-sequence and in the time window of 9:00 a.m. – 11:00 a.m. EDT Tuesday June 12, 2018.

- A specific TACP will be designated by Controller inject for demonstration/discussion purposes.
- TACP demonstration personnel will be equipped in accordance with applicable plans and procedures as if responding to a real-world event.

***Criterion 3.d.2: Impediments to evacuation are identified and resolved. (NUREG-0654/FEMA-REP-1, J.10.k)***

**EXTENT OF PLAY**

- The CCEOC will demonstrate the capability, as required by the scenario, to identify and take appropriate actions concerning impediments to evacuation. Actual dispatch of resources to deal with impediments will be simulated.
- The Highway Services Officer will discuss the appropriate actions to be taken to the removal of impediments to the evacuation. Equipment will not actually be dispatched.
- The Law Enforcement Officer will discuss the appropriate actions to reroute the evacuation traffic around the impediment. Officers will not actually be dispatched.
- The Executive group will formulate a news release. This News release will suggest alternate evacuation routes around the impediment.
- This news release will be processed as a Special News Bulletin.
- Actual dispatch of resources to deal with impediments, such as tow trucks, need not be demonstrated; however, simulated contacts will be logged.
- If the scenario utilized for the exercise does not drive the evacuation decision making process, this criterion may be demonstrated by Controller-facilitated discussion and injected information. State and/or County representatives will participate in this discussion, as appropriate, to allow for fuller exploration of the topic. Demonstration of this criterion shall be deemed complete if the ORO personnel can describe to the Evaluator through actions and interview steps they would take to overcome a major traffic impediment during an evacuation and how such actions would be communicated to the public and affected OROs.

**Sub-element 3.e – Implementation of Ingestion Pathway Decisions**

***Criterion 3.e.1: The ORO demonstrates the availability and appropriate use of adequate information regarding water, food supplies, milk, and agricultural production within the ingestion exposure pathway emergency planning zone for implementation of protective actions. NUREG-0654/FEMA-REP-1, A.3; C.1, 4; J.11)***

**EXTENT OF PLAY**

N/A – This sub-element is a State function and will not be evaluated during this exercise.

***Criterion 3.e.2: Appropriate measures, strategies, and pre-printed instructional material are developed for implementing protective action decisions for contaminated water, food products, milk, and agricultural production. (NUREG-0654/FEMA-REP-1, G.1, J.9, 11)***

#### EXTENT OF PLAY

N/A – This sub-element is a State function and will not be evaluated during this exercise.

### **Sub-element 3.f – Implementation of Post-Plume Phase Relocation, Reentry, and Return Decisions**

#### Intent

#### EXTENT OF PLAY

N/A – This sub-element will not be evaluated during this exercise.

***Criterion 3.f.1: Decisions regarding controlled reentry of emergency workers and relocation and return of the public during the post-plume phase are coordinated with appropriate organizations and implemented. (NUREG-0654/FEMA-REP-1, E.7; J.10.j; J.12; K.5.b; M.1, 3)***

#### EXTENT OF PLAY

N/A – This sub-element will not be evaluated during this exercise.

## **ASSESSMENT AREA 4: FIELD MEASUREMENTS AND ANALYSIS**

### **Sub-element 4.a – Plume Phase Field Measurements and Analyses**

#### ***Criterion 4.a.1: [RESERVED]***

***Criterion 4.a.2: Field teams (2 or more) are managed to obtain sufficient information to help characterize the release and to control radiation exposure. (NUREG-0654/FEMA-REP-1, C.1; H.12; I.7, 8, 11; J.10.a)***

#### EXTENT OF PLAY

N/A – This sub-element is a State function and will not be demonstrated during this exercise.

***Criterion 4.a.3: Ambient radiation measurements are made and recorded at appropriate locations, and radioiodine and particulate samples are collected. Teams will move to an appropriate low background location to determine whether any significant (as specified in the plan and/or procedures) amount of radioactivity has been collected on the sampling media. (NUREG-0654/FEMA-REP-1, C.1; H.12: I.8, 9; J.10.a)***

## EXTENT OF PLAY

N/A – This sub-element is a State function and will not be demonstrated during this exercise.

### Sub-element 4.b – Post-Plume Phase Field Measurements and Sampling

***Criterion 4.b.1: The field teams (2 or more) demonstrate the capability to make appropriate measurements and to collect appropriate samples (e.g., food crops, milk, water, vegetation, and soil) to support adequate assessments and protective action decision making. (NUREG-0654/FEMA-REP-1, C.1; I.8; J.11)***

## EXTENT OF PLAY

N/A – This sub-element is a State function and will not be demonstrated during this exercise.

### Sub-element 4.c – Laboratory Operations

***Criterion 4.c.1: The laboratory is capable of performing required radiological analyses to support protective action decisions. (NUREG-0654/FEMA-REP-1, C.1, 3; J.11)***

## EXTENT OF PLAY

N/A – This sub-element is a State function and will not be demonstrated during this exercise.

## ASSESSMENT AREA 5 – EMERGENCY NOTIFICATION AND PUBLIC INFORMATION

### Sub-element 5.a – Activation of the Prompt Alert and Notification System

***Criterion 5.a.1: Activities associated with primary alerting and notification of the public are completed in a timely manner following the initial decision by authorized offsite emergency officials to notify the public of an emergency situation. The initial instructional message to the public must include as a minimum the elements required by current REP guidance. (NUREG-0654/FEMA-REP-1, E.5, 6, 7)***

## EXTENT OF PLAY

- The County will demonstrate the capability to provide a timely alert signal followed by an initial instructional message to populated areas throughout the 10-mile plume pathway EPZ, to include at a minimum the elements required by the RPM.
- Following the decision to activate the alert and notification system (EAS), in accordance with the County plan and/or procedures, completion of system activation should be accomplished in a timely manner with a sense of urgency in accordance with REP guidance.

- Siren activation will be simulated, but all other aspects of the demonstration will be conducted in accordance with plans and procedures.
- Evaluators will interview the Dispatch Staff regarding the steps that they would take to activate sirens. Coordination between the EOC and the Dispatch Center regarding siren-activation will be conducted via “speaker-phone” call and observed at the EOC. The activation step will be simulated (there will be no actual sounding of the sirens).
- Procedures to broadcast emergency messages for the public will be fully demonstrated as they would in an actual emergency up to the point of actual transmission. However, actual broadcast of the message(s) will not be demonstrated.
- For Exercise purpose, the EAS Radio Station will not be activated.
- The capability of the primary notification system to broadcast an instructional message on a 24-hour basis may be verified through interview with the CCEMA Director or designee.

**Criterion 5.a.2: [RESERVED]**

***Criterion 5.a.3: Backup alert and notification of the public is completed within a reasonable time following the detection by the ORO of a failure of the primary alert and notification system. (NUREG-0654/FEMA-REP-1, E.6, Appendix 3.B.2.c)***

**EXTENT OF PLAY**

- The Calcutta Fire Department will demonstrate this function out-of-sequence on June 11, 2018 at 7:00 p.m. EDT.
- All alert and notification activities along the assigned route will be simulated. Actual testing of the mobile public address system will be conducted at the Fire Station.
- The vehicle used to conduct the route alerting may not be the actual vehicle used in a real event, due to bridge limitations and to accommodate an evaluator.
- By Controller inject, the Back-up Route Alerting Team will be notified of a failed siren, to including the siren number. The Team will conduct Backup Route Alerting along the appropriate route. A single route will be run, with no lights or sirens.
- The Route Verification Team will procedurally demonstrate by interview the capability to alert and notify the public, to include Special Needs individuals. The route will not be rerun.

***Criterion 5.a.4: Activities associated with FEMA-approved exception areas (where applicable) are completed in a timely manner following the initial decision by***

**authorized offsite emergency official's to notify the public of an emergency situation. (NUREG-0654/FEMA-REP-1, E.6; Appendix 3.B.2.c)**

#### EXTENT OF PLAY

Not Selected – Exception Areas do not exist in Columbiana County. This Criterion will not be demonstrated.

#### **Sub-element 5.b – Subsequent Emergency Information and Instructions for the Public and the Media**

***Criterion 5.b.1: OROs provide accurate subsequent emergency information and instructions to the public and the news media in a timely manner. (NUREG-0654/FEMA-REP-1, E.5, 7; G.3.a, G.4.a, c)***

#### EXTENT OF PLAY

- The County will ensure that emergency information and instructions are consistent with protective action decisions made by appropriate officials. The emergency information will contain necessary and applicable instructions to assist the public in carrying out protective action decisions provided to them.
- Sufficient Public Inquiry calls will be received beginning at a Site Area Emergency ECL to keep Players engaged for the remainder of the exercise.
- Trends in rumors will be identified and responded to as needed.
- Subsequent emergency information and instructions will be provided to the public and the media through the Joint Information Center. Columbiana County will not have a representative at the JPIC.
- One news briefing will be conducted by Columbiana County officials at the County EOC. Actual news media will be present. In the event news media is unavailable, Controllers will serve as Mock Media and present appropriate questions.

### **ASSESSMENT AREA 6 – SUPPORT OPERATIONS FACILITIES**

#### **Sub-element 6.a – Monitoring, Decontamination, and Registration of Evacuees**

***Criterion 6.a.1: The reception center facility has appropriate space, adequate resources, and trained personnel to provide monitoring, decontamination, and registration of evacuees. (NUREG-0654/FEMA-REP-1, A.3; C.4; J.10.h; J.12)***

#### EXTENT OF PLAY

Columbiana County has two (2) **Reception Centers** identified in the County RERP. One Reception Center will be demonstrated in this exercise. Monitoring and Decontamination of evacuees/vehicles will be provided at the Reception Center.

- West Point Fire Department will staff the Reception Center at the Beaver Local Sports Complex; the demonstration will be out-of-sequence in the time window of 6:00 p.m. – 9:00 p.m. EDT, on Wednesday June 13, 2018.
- The scenario will commence when the Controller notifies the response organizations of the ALERT ECL. Subsequent escalations in ECLs will be driven by Controller injects.
- Non radiological instrumentation portion of the set-up of the facility may be done prior to the start of the exercise and will be performed as closely as possible to that for an actual emergency with route markings in place, including defined exit areas, per contamination control procedures.
- A total of six potentially contaminated individuals will pass through a portal monitor. In consultation with the Evaluator, the Controller will select at random one Evacuee to be designated as “contaminated.”
- Evacuee decontamination will be walked through and explained procedurally by the Workers. The contaminated Evacuee will not disrobe and will not undergo actual decontamination.
- The decision to refer individuals who cannot be decontaminated to medical facilities will be procedurally explained via Evaluator interview.
- Only one shower area will be setup. A floor plan of showering facilities for both males and females will be available for inspection.
- Initial registration of evacuees who are not found to be contaminated will be demonstrated concurrently with evacuee decontamination.
- For evacuees arriving at the Reception Center, implementation of the KI decision will be demonstrated by a Health Department Representative.
- One vehicle will be monitored and found by Controller inject to be contaminated. The vehicle decontamination area will be setup as it would in an actual emergency, including all signs, supplies, equipment and personnel. Areas identified by the Controller as contaminated are not required to be washed down to remove the contamination, but the process will be procedurally explained by the Players, and the Controller will provide appropriate injects to the Players to indicate the level of contamination remaining after each decontamination attempt. Players will decide whether further decontamination is required in accordance with plans and procedures.
- Contamination control and record-keeping procedures will be demonstrated.



- Provisions for vehicles that cannot be decontaminated after an incident will be addressed during the interview.
- The Workers will procedurally explain the process for impounding vehicles.
- Players assigned to both Evacuee and Evacuee Vehicle monitoring and decontamination activities will demonstrate the donning, use and doffing of appropriate PPE.
- Players assigned to both Evacuee and Evacuee Vehicle monitoring and decontamination activities will demonstrate the appropriate use of dosimetry and KI.
- Plans/procedures that indicate provisions for service animals will be available, but not evaluated.

**Sub-element 6.b – Monitoring and Decontamination of Emergency Workers and their Equipment and Vehicles**

***Criterion 6.b.1: The facility/ORO has adequate procedures and resources to accomplish monitoring and decontamination of emergency workers and their equipment and vehicles. (NUREG-0654/FEMA-REP-1, K.5.a, b)***

**EXTENT OF PLAY**

Columbiana County has two (2) **Emergency Worker Decontamination** Centers; one will be demonstrated this exercise.

- The demonstration will be conducted at the Negley Fire Department by the Negley Fire/EMS. The demonstration will be conducted out-of-sequence from 7:00 p.m. – 9:00 p.m. EDT, Monday June 11, 2018.
- The scenario will begin when the Controller notifies the response organizations of the ALERT ECL. Subsequent escalations in ECLs will be driven by Controller injects.
- Non radiological instrumentation portion of the set-up of the facility may be done prior to the start of the exercise and will be performed as closely as possible to that for an actual emergency with route markings in place, including defined exit areas, per contamination control procedures.
- Two Emergency Workers will be monitored for contamination, one (selected at random by the Controller) will be contaminated.
- Decisions on the need for decontamination will be made based on Controller injected radiation levels, as specified in the County REP Plan.
- Contamination control and record-keeping procedures will be demonstrated.



- Decontamination efforts will be procedurally explained by the Workers. The contaminated Emergency Worker will not disrobe and will not undergo actual decontamination.
- The decision to refer individuals who cannot be decontaminated to medical facilities will be procedurally explained via Evaluator interview.
- Only one shower area will be setup. A floor plan of showering facilities for both males and females will be available for inspection.
- One vehicle will be monitored and found to be contaminated. The vehicle decontamination area will be setup as it would in an actual emergency, including all signs, supplies, equipment and personnel. Areas identified by the Controller as contaminated are not required to be washed down to remove the contamination, but the process will be procedurally explained by the Players, and the Controller will provide appropriate injects to the Players to indicate the level of contamination remaining after each decontamination attempt. Players will decide whether further decontamination is required in accordance with plans and procedures.
- Provisions for vehicles that cannot be decontaminated will be addressed during the interview.
- Players assigned to both Emergency Worker and Emergency Worker Vehicle and Equipment monitoring and decontamination activities will demonstrate the donning, use and doffing of appropriate PPE.
- Players assigned to both Emergency Worker and Emergency Worker Vehicle and Equipment monitoring and decontamination activities will demonstrate the appropriate use of dosimetry and KI.

#### **Sub-element 6.c – Temporary Care of Evacuees**

***Criterion 6.c.1: Managers of congregate care facilities demonstrate that the centers have resources to provide services and accommodations consistent with American Red Cross planning guidelines. Managers demonstrate the procedures to assure that evacuees have been monitored for contamination and have been decontaminated as appropriate prior to entering congregate care facilities. (NUREG-0654/FEMA-REP-1, J.10.h, J.12)***

#### **EXTENT OF PLAY**

- Columbiana County has three (3) Care Centers; one will be demonstrated during this exercise. (See Criterion 1.b.1)

- The demonstration, including set-up, will be conducted out-of-sequence at the United Local School Complex, this Care Center will be demonstrated from 3:00 p.m. – 5:00 p.m. EDT on Tuesday June 12, 2016.
- The set-up and operation of the Care Center will be explained to the Evaluator via a walk-through of the Center, observation and interview. Care Center personnel will demonstrate through interview that the services and accommodations are consistent with American Red Cross standards.
- ARC will setup a Registration Station, complete with standard ARC forms and register evacuees in accordance with ARC procedures. All set-up activities will be conducted as part of the demonstration.
- Care Center staff will demonstrate the capability to ensure that Evacuees have been monitored for contamination and decontaminated as appropriate. This capability will be determined through an interview process.
- Materials and equipment that would be difficult or expensive to transport need not be physically available at the facility. However, availability of such items must be verified by providing the Evaluator a list of sources with locations and available quantities.

**Sub-element 6.d – Transportation and Treatment of Contaminated Injured Individuals**

***Criterion 6.d.1: The facility/ORO has the appropriate space, adequate resources, and trained personnel to provide transport, monitoring, decontamination, and medical services to contaminated injured individuals. (NUREG-0654/FEMA-REP-1, F.2; H.10; K.5.a, b; L.1, 4)***

**EXTENT OF PLAY:**

- MS-1 Transportation and Facility Drill:
- Medical Transport and Facilities for contaminated injured persons was successfully demonstrated for Columbiana County on September 27, 2017, by the New Waterford Fire/EMS and Salem Regional Medical Center.

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## PENDIX F: On-Site/Off-Site Scenario Timeline

Beaver Valley Power Station

Quarantined Exercise – Time Line and Expected On-Site and Off-Site Actions

protected Train ‘B’.

on is 1035 ppm.

gpm Identified and 0.02 gpm Unidentified.

0 µCi/ml with a DEI 131 of 1.20E-4 µCi/gram

nt Out Of Service

, protected Train ‘B’.

nt Out Of Service

designated the Unit 1 Shift Manager as the Senior Shift Manager

tain 100% power.

. Cloudy skies. Winds from the north-east at 9 mph. Chance of rain 0%.

mid 60’s. Partly cloudy skies. Winds from the east 12 mph. Chance of rain 0%.

## Beaver Valley Power Station Daily Status Report 2018 Evaluated Exercise

TIME*	ACTION	ANTICIPATED STATE AND COUNTY ACTIONS	
<u>1600</u> 0	<b>Emergency Preparedness Exercise begins.</b> Announcements are made onsite to station personnel.	Pre-Position at EMA and serve meal about 1615-1630	Pre-position at SEOC and serve meal about 1630-1700.
<u>1605</u> 05	Seismic event (0.07g)  <b>THIS IS THE UNUSUAL EVENT INDICATOR (EAL HU2.1)</b> Seismic event > OBE (> 0.06g)		
<u>1606</u> 06	Field Operator reports major ground motion felt in the Tour Office		
<u>1620</u> 20	<b>An UNUSUAL EVENT is declared based on EPP/I-1a, EAL HU2.1 Seismic event &gt; OBE (&gt;0.06g)</b>	Declaration should be on Unit 1 and Unit 2	
<u>1620</u> 20	Personnel in the Emergency Operations Facility (EOF) and Joint Public Information Center (JPIC) begin reporting to their facilities and are on standby status.		
<u>1620</u> 20	Offsite Response Organizations are notified of <b>Unusual Event</b>	<b>Sheriff's Office 911 Dispatch</b> receives notification and forwards information to EMA. Initial notifications responses forwarded to EOC for future calls.  911 Dispatchers talk through siren activation OOS for evaluator	<ul style="list-style-type: none"> <li>• <b>OSHP Dispatch</b> receives notification and forwards information to Ohio EMA. Initial notification is forwarded to SEOC for future calls</li> <li>• <b>Courtesy notification</b> to ODH and OEPA</li> <li>• <b>Resident Analysts</b> may mobilize to County EOC and Utility EOF</li> </ul>
<u>1620</u>	The crew at the plant may have discussions on plant shutdown around this time		

## Beaver Valley Power Station Daily Status Report 2018 Evaluated Exercise

TIME*	ACTION	ANTICIPATED STATE AND COUNTY ACTIONS	
20			
<u>1655</u> 55	Aftershock (0.03g)		
<u>1655</u> 55	Loss of 345KV Switchyard - Turbine will trip after several seconds. <b>Rx Trip due to Turbine Trip</b>  Unit 2 Turbine/Reactor trip. All busses on off-site power. All systems normal		
<u>1700</u> 1:00	Aftershock (0.05g)		
<u>1710</u> 1:10	The EOF should be staffed and on Stand-by. JPIC personnel should be staffing the facility.	EOF on standby – no state players there yet.	
<u>1725</u> 1:25	An ALERT is declared based on EAL <b>SA1.1</b> AC power capability, Table 1S-1, to 4 Kv emergency buses 1AE and 1DF reduced to a single power source for $\geq 15$ min. (Note 1)  AND		

## Beaver Valley Power Station Daily Status Report 2018 Evaluated Exercise

TIME*	ACTION	ANTICIPATED STATE AND COUNTY ACTIONS	
	ANY additional single power source failure will result in loss of ALL AC power to SAFETY SYSTEMS		
<u>1725</u> 1:25	<b>Offsite Response Organizations are notified of ALERT</b>	<ul style="list-style-type: none"> <li>• State EOC begins to Activate</li> <li>• County EOCs begin to Activate</li> <li>• Call down notifications to EOC (simulated)</li> <li>• Establish communication with Beaver/Hancock Counties</li> <li>• Activate Public Inquiry Line</li> </ul>	<ul style="list-style-type: none"> <li>• Dose Assessment is activated</li> <li>• State EOC may be activated</li> <li>• JIC may be activated</li> <li>• FMTs may be mobilized to the RIMC</li> <li>• If not already completed, Resident Analysts mobilize to County EOC and Utility EOF</li> </ul>
<u>1810</u> 2:10	Some damage to the transportation infrastructure reported by states/counties (Damaged bridges/landslides blocking roads).	<b>Through Coordination with State Representatives in the EOF or plant liaison</b> - These will <u>not</u> be “Significant Impediments to Evacuation” for PAR considerations. These impediments will not affect FMT movement or staffing of Emergency Facilities.	
<u>1820</u> 2:20	1EE-EG-1, #1 Diesel Generator, trips  <b>THIS IS THE SITE AREA EMERGENCY INDICATOR (EAL <b>SS1.1</b>) Loss of ALL offsite and ALL onsite AC power to 4 KV emergency buses 1AE and 1DF for <math>\geq 15</math> min. (Note 1)</b>		

## Beaver Valley Power Station Daily Status Report 2018 Evaluated Exercise

TIME*	ACTION	ANTICIPATED STATE AND COUNTY ACTIONS	
1835 2:35	A SITE AREA EMERGENCY should be declared based on EPP/I-1a, EAL SS1.1 Loss of ALL offsite and ALL onsite AC power to 4 KV emergency buses 1AE and 1DF for $\geq 15$ min. (Note 1)		
1850 2:50	Offsite Response Organizations are notified of <b>SITE AREA EMERGENCY</b>	<p>The following occur if not previously completed:</p> <ul style="list-style-type: none"> <li>• Update all staff and off-sites of SAE</li> <li>• County to review notifications and any utility/state protective action recommendations</li> <li>• Formulate a PAD with Ohio EMA</li> <li>• Coordinate with surrounding states and counties of implement ANS sequence</li> <li>• Ensure Route Verification done</li> <li>• Do B/Up Route Alert if needed</li> <li>• School actions needed or discussed</li> <li>• Ag Advisory</li> <li>• Special News Bulletins, Press Brief, Public inquiry</li> <li>• Prepare to activate EWDC/Reception Center</li> <li>• Declare County Emergency</li> <li>• Ensure notification of special populations and list transportation needs</li> <li>• Monitor Impediments to possible evacuations with news release</li> </ul>	<ul style="list-style-type: none"> <li>• If not previously completed, the SEOC and JIC will be activated</li> <li>• ODA issues an Ag Advisory to 10-miles</li> <li>• ODH will create a precautionary PAR. Director will communicate PAR to County EMA</li> <li>• Public Inquiry line is activated</li> <li>• FMTs may be advised to mobilize at the staging area. Once there, FMTs may be requested to traverse, survey, and take air samples</li> </ul>



## Beaver Valley Power Station Daily Status Report 2018 Evaluated Exercise

TIME*	ACTION	ANTICIPATED STATE AND COUNTY ACTIONS	
		<ul style="list-style-type: none"> <li>Joint Public Information Center (JPIC) activated</li> </ul>	
<u>1905</u> 3:05	<p>LOCA occurs in containment (5000gpm)</p> <p>Containment Purge/Exhaust leak to PAB through 1VS-D-5-6, Containment Purge Outside Isolation. Picked up by SLRCS. (WILL NOT EXCEED THE PAGs AT THE SITE BOUNDARY. SAE, but NOT GE rad monitor release levels.)</p> <p>Contingency Simulator programming to actuate PAB Ventilation Radiation Monitors if SLRCS is not in service.</p> <p><i>If only PAB ventilation (1VS-F-7A) is operating:</i>            RM-1VS-102A, B            RM-1VS-109            will activate High-High alarms (6E6 <math>\mu\text{Ci/sec}</math>)  <i>If SLRCS ventilation (1VS-F-4B) is operating</i>            RM-1VS-105            RM-1VS-107            RM-1VS-110            will activate High-High alarms (6E6 <math>\mu\text{Ci/sec}</math>)</p> <p>Dose projection should use 1 to 4 hours</p>	<p><b>START OF RELEASE</b></p> <ul style="list-style-type: none"> <li>County receives notification of Release from Plant Liaison and/or EOF communicator in Assessment Room</li> <li>Discussion of potential escalation</li> <li>Await word from State Dose Assessment on any PAG exceedance</li> <li>Advise EOC staff of release and severity</li> </ul>	<p><b>START OF RELEASE</b></p> <ul style="list-style-type: none"> <li>State receives notification of release from Utility Liaison and/or EOF communicator in Assessment Room</li> <li>Discussion of potential escalation</li> <li>State Dose Assessment determines if PAGs are exceeded</li> <li>Advise SEOC staff of release and severity</li> <li>If not already completed, FMTs will be advised to traverse, survey, and take air samples</li> </ul>
<u>1950</u> 3:50	Release Terminated.		

## Beaver Valley Power Station Daily Status Report 2018 Evaluated Exercise

TIME*	ACTION	ANTICIPATED STATE AND COUNTY ACTIONS	
<u>2000</u> 4:00	<b>Drill Termination.</b>	<i>Announce exercise termination to the site.</i>  <i>Offsite agency play may continue as required.</i> <i>Virtual Plume information is provided for Field Monitoring Team use through 2100.</i>	Announce exercise termination to the SEOC.

## Beaver Valley Power Station METEOROLOGICAL DATA 2018 Evaluated Exercise

TIME*	35' WIND DIRECTION	150' WIND DIRECTION	500' WIND DIRECTION	35' WIND SPEED (MPH)	150' WIND SPEED (MPH)	500' WIND SPEED (MPH)	DELTA T 150'-35' (S.C.)	35' AMBIENT TEMP. (°F)	Rainfall (inches/ 15 min)
1530	75	74	79	7	8	9	1.2 (F)	72 Cloudy	0
1545	75	74	79	7	8	9	1.2 (F)	72 Cloudy	0
1600	75	74	79	7	8	9	1.2 (F)	72 Cloudy	0
1615	75	74	79	7	8	9	1.2 (F)	72 Cloudy	0
1630	73	71	75	8	8	10	1.2 (F)	72 Cloudy	0
1645	73	71	75	8	8	10	1.2 (F)	72 Cloudy	0
1700	70	69	72	8	9	10	1.2 (F)	72 Cloudy	0
1715	70	69	72	8	9	10	1.2 (F)	72 Cloudy	0
1730	70	69	72	8	9	10	1.2 (F)	72 Cloudy	0
1745	66	66	70	9	10	10	1.2 (F)	72 Cloudy	0
1800	66	66	70	9	10	10	1.2 (F)	72 Cloudy	0
1815	65	66	69	9	10	11	1.2 (F)	71 Cloudy	0
1830	65	66	69	9	10	11	1.2 (F)	71 Cloudy	0
1845	65	66	69	9	10	11	1.2 (F)	71 Cloudy	0
1900(1)	63	66	67	9	10	12	1.2 (F)	70 Cloudy	0
1915	63	66	67	10	10	12	1.2 (F)	70 Cloudy	0
1930	63	66	67	10	10	12	1.2 (F)	70 Cloudy	0
1945(2)	63	63	67	10	10	12	1.2 (F)	70 Cloudy	0
2000	63	63	67	10	10	12	1.2 (F)	70 Cloudy	0
2015	63	63	67	10	10	12	1.2 (F)	70 Cloudy	0

\* All times are Eastern Daylight Time

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**FORECAST:**

1200-1800hrs: High temperature in the low to mid 70's. Cloudy skies throughout the day. Wind from the North-East at 9 mph. Chance of precipitation 0%.

1800-2400hrs: Temperatures falling to the mid 60's overnight. Skies becoming partly cloudy after midnight. Chance of precipitation 0%.

**NOTE:**

- (1) Radioactive release begins at 1905 hrs
- (2) Radioactive release ends at approximately 1950 hrs

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