Beaver Valley Power Station
Shippingport, Pennsylvania
After Action Report/Improvement Plan
Commonwealth of Pennsylvania
Exercise Date – June 11, 2024
Radiological Emergency Preparedness (REP) Program

FEMA

Published August 22, 2024

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Beaver Valley Power Station

After Action Report/Improvement Plan

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EXECUTIVE SUMMARY

On June 11, 2024, a full participation Plume Exposure Pathway exercise was conducted and evaluated for the 10-Mile Emergency Planning Zone (EPZ) around the Beaver Valley Power Station (BVPS) by the U.S. Department of Homeland Security (DHS) Federal Emergency Management Agency (FEMA), Region 3. The previous full-participation plume exercise at this site was evaluated on June 7, 2022.

Out-of-Sequence demonstrations were conducted on May 14 and 16, 2024. The purpose of the Exercise and Out-of-Sequence demonstrations was to assess the capabilities of State, counties, and local jurisdictions to implement Radiological Emergency Response Plans (RERP) and Procedures to protect the property and lives of residents and transients in the event of an emergency at the Beaver Valley Power Station. The findings in this report are based on the evaluations of the Federal evaluation team, with final determinations made by the FEMA, Region 3 Regional Assistance Committee (RAC) Chairperson, and approved by FEMA Headquarters. These reports are provided to the Nuclear Regulatory Commission (NRC) and participating States. State and local governments utilize the findings contained in these reports for the purposes of planning, training, and improving emergency preparedness.

The Findings in this report cover only the participation of the Commonwealth of Pennsylvania. The Findings for the States of West Virginia and Ohio, who also participated in this exercise, are covered under a separate after-action report (AAR).

The evaluation of this exercise determined that there were no Level 1 Findings, one Level 2 Finding, and two Plan Issues. The Level 2 Finding was re-demonstrated during the exercise and closed. One of the Plan Issues was closed prior to publishing of this report after FEMA received revised procedures and determined that the revisions were adequate. One Plan Issue, assessed to the Pennsylvania Emergency Management Agency (PEMA) remains open.

A Level 1 Finding is defined by the FEMA Radiological Emergency Preparedness Program Manual as follows: "An observed or identified inadequacy of organizational performance in an assessment activity that could cause a determination that offsite emergency preparedness is not adequate to provide reasonable assurance that appropriate protective measures can be taken in the event of a radiological emergency to protect the health and safety of the public living in the vicinity of a Nuclear Power Plant (NPP)."

A Level 2 Finding is defined as: "An observed or identified inadequacy of organizational performance in an assessment activity that is not considered, by itself, to adversely impact public health and safety."

Finally, a Plan Issue is: "An observed or identified inadequacy in the offsite response organization's (ORO) emergency plan/implementing procedures, rather than that of the ORO's performance."

FEMA wishes to acknowledge the efforts of the many individuals in the Commonwealth of Pennsylvania; the risk county jurisdiction of Beaver County; and the municipal jurisdictions within Beaver County. Protecting the public health and safety is the full-time job of some of the exercise participants and an additional assigned responsibility for others. Still others have willingly sought

this responsibility by volunteering to provide vital emergency services to their communities. Cooperation and teamwork of all the participants were evident during the exercise.

Section 1 of this report entitled "Exercise Overview" presents the “Exercise Planning Team” and the “Participating Organizations.”

Section 2 of this report entitled “Exercise Design Summary” includes the “Exercise Purpose and Design”, “Exercise Objectives, Capabilities and Activities”, and the “Scenario Summary”.

Section 3 of this report entitled “Analysis of Capabilities” presents detailed “Exercise Evaluation and Results” information on the demonstration for each jurisdiction or functional entity evaluated in a jurisdiction-based, issue-only format (Criteria Evaluation Summaries).

Section 4 of this report entitled “Demonstrated Strengths” includes exemplary performances that were demonstrated during the exercise and information on best practices that were observed.

Section 5 of this report entitled “Conclusion” presents a summary of the findings and performance of the evaluated agencies.

The appendices, present supplementary information that is relevant to the exercise:

- Appendix A – Exercise Timeline. A table that depicts the times when an event or notifications were noted at participating agencies and locations.
- Appendix B – Exercise Evaluators and Team leaders. A table listing the evaluator names, organizations, and responsibilities of the evaluators and management.
- Appendix C – Acronyms and Abbreviations. An alphabetized table defining the formal names used in this report.
- Appendix D – Extent of Play Agreement

SECTION 1: EXERCISE OVERVIEW

1.1 Exercise Details

Exercise Name
Beaver Valley Power Station Plume Exercise

Type of Exercise
Plume

Exercise Date
June 11, 2024

Program
Department of Homeland Security/FEMA Radiological Emergency Preparedness Program

Scenario Type
No/Minimal Release of Radioactive Materials

1.2 Exercise Planning Team Leadership

Tina Thomas
Emergency Management Specialist
DHS/FEMA Region 3
One Independence Mall, 6th Floor
615 Chestnut Street
Philadelphia, PA, 19106-4404
215-478-2923
tina.thomas@fema.dhs.gov

Victor Wilson, Sr.
Emergency Management Specialist
Pennsylvania Emergency Management Agency
1310 Elmerton Avenue
Harrisburg, PA 17110
412-779-2753
vicwilson@pa.gov

Jason Lively
Manager, Radiological Emergency Preparedness Program
Radiological Operations Support Specialist Coordinator
Preparedness & Response Section
1700 MacCorkle Ave, SE, 6th Floor
Charleston, WV 25314
304-545-3058
jason.k.lively@wv.gov

Patrick Arneault
WV REP County Coordinator
82 Emergency Drive
New Cumberland, WV 26047
304-993-9707
patrick.j.arneault@wv.gov

Jack Balser
Offsite Coordinator
VISTRA Corp. Beaver Valley Power Station
Route 168
Shippingport, Pennsylvania, 15077
412-596-5402
balserj@energyharbor.com

1.3 Participating Organizations

Agencies and organizations of the following jurisdictions participated in the Beaver Valley Power Station (BVPS) exercise:

State Jurisdiction

Commonwealth of Pennsylvania

- American Red Cross
- VISTRA Corp.
- Pennsylvania Field Monitoring Team-BRP
- Pennsylvania Auxiliary Communications Service
- Pennsylvania Department of Corrections
- Pennsylvania Department of Drug and Alcohol Programs
- Pennsylvania Department of Environmental Protection
- Pennsylvania Department of Environmental Protection, Bureau of Radiation Protection
- Pennsylvania Department of Health
- Pennsylvania Department of Homeland Security
- Pennsylvania Department of Human Services
- Pennsylvania Department of Labor and Industry
- Pennsylvania Department of Military and Veterans Affairs
- Pennsylvania Department of Revenue
- Pennsylvania Department of Transportation
- Pennsylvania Turnpike Commission
- Pennsylvania Emergency Management Agency
- Pennsylvania Fish and Boat Commission
- Pennsylvania Governor's Office
- Pennsylvania Office of Administration
- Pennsylvania Public Utility Commission
- Pennsylvania State Police

Joint Public Information Center (JPIC)

- Pennsylvania Emergency Management Agency

- VISTRA Corp.
- Ohio Emergency Management Agency (virtual)
- West Virginia Department of Emergency Management

Risk Jurisdiction

Beaver County

- Beaver County Emergency Management Agency
- Beaver County Commissioners
- Beaver County Public Information Officer
- Beaver County Human Resources
- Beaver County Fire Services
- Beaver County Operations Officer
- Beaver County Communications Officer
- Beaver County Emergency Medical Services
- Beaver County 911
- Beaver County Sheriff's Department
- Beaver County Agriculture
- Beaver County Search and Rescue
- Beaver County Radiological Officer
- Beaver County Behavioral Health Department
- Beaver County Transit Authority
- Beaver County Department of Public Works
- Beaver County HazMat
- Beaver County Emergency Medical Services West
- Beaver County Department of Public Works
- Beaver County Schools Representative
- Pennsylvania State Police
- Pennsylvania Department of Transportation
- National Weather Service
- American Red Cross
- Health Care Coalitions of Southwest Pennsylvania
- Heritage Valley Health Systems
- United Valley REACT
- Radio Amateur Civil Emergency Service (RACES)
- VISTRA

Risk Municipalities

- Aliquippa Bureau of Fire
- Aliquippa Emergency Management Agency
- Aliquippa Police Services
- Aliquippa Public Works
- Amateur Radio Emergency Service (ARES)
- Beaver Borough/Bridgewater/Vanport Township
- Beaver Police Department
- Beaver Valley REACT

- Bridgewater Fire Department
- Bridgewater Police Department
- Bridgewater/Vanport Emergency Management Agency
- Brighton Township
- Brighton Township Emergency Management Agency
- Brighton Township Fire Department
- Brighton Township Police Department
- Brighton Township Public Works
- Brighton Township Sewage Department
- City of Aliquippa
- United Valley REACT
- Chippewa/Ohioville/Glasgow/South Beaver/Patterson Heights/Patterson Township
- Chippewa Township Emergency Management Agency
- Patterson Heights Township Emergency Management Agency
- Patterson Township Emergency Management Agency
- Patterson Township Police Department
- Triple A Amateur Radio Club
- Fallston Borough
- Beaver Valley Regional Emergency Management Agency
- Fallston Borough Emergency Management Agency
- New Brighton Police Department
- United Valley REACT
- Frankfort Springs/Hanover/Independence Township
- Hanover Volunteer Fire Department
- Hookstown/Georgetown/Greene Volunteer Fire Department
- Independence Volunteer Fire Department
- Georgetown/Greene/Hookstown Township
- Hopewell Township
- Hopewell Emergency Management Agency
- Hopewell Fire Department
- Hopewell Police Department
- Hopewell Public Works
- Industry/Midland
- Industry Emergency Management Agency
- Monaca/Center Township
- Monaca Emergency Management Agency
- Monaca Police
- Monaca Road Department
- Radio Amateur Civil Emergency Service
- Potter/Raccoon Township/Shippingport
- Pennsylvania Emergency Management Agency
- Potter Township Fire Department
- Raccoon Township Police Department
- Shippingport Emergency Management Agency
- Shippingport Fire Department

- Shippingport Police Department
- United Valley REACT
- South Heights Borough
- Radio Amateur Civil Emergency Service
- South Heights Borough Emergency Management Agency

Support Jurisdiction

Allegheny County

- Allegheny County Airport Authority
- Allegheny County Department of Human Services
- Allegheny County Emergency Services
- Allegheny County Parks
- Allegheny County Public Works
- Allegheny County Police
- Allegheny County Region 13 All Hazards Fusion Center
- Allegheny Health Department
- Allegheny Schools Intermediate Unit
- Pittsburgh Emergency Management Services
- Pittsburgh Department Public Safety
- Port Authority of Allegheny County
- United Way of SWPA
- American Red Cross
- Salvation Army
- 211 United Way Public Inquiry
- Duquesne University
- Pennsylvania Emergency Management Agency

Butler County

- Butler County Amateur Radio Public Service Group (ARES/RACES)
- Butler County Emergency Operations Center
- Butler County Emergency Services
- Butler County Sheriff's Office
- Pennsylvania Volunteer Emergency Services of Butler County
- South Western Pennsylvania Chapter of the American Red Cross, Greater Pennsylvania Region

Lawrence County

- American Red Cross
- American Red Cross, South West Pennsylvania Chapter
- Bessemer Volunteer Fire Department
- Lawrence Amateur Radio Club
- Lawrence County Department of Public Safety
- Lawrence County Emergency Management Agency
- Mercer County Departments of Public Safety
- New Castle Fire Department
- Noga Ambulance Service
- North Beaver Volunteer Fire Department

- Pennsylvania Emergency Management
- Radio Amateur Civil Emergency Service
- Wampum Volunteer Fire Department

Washington County

- City of Washington Fire Department
- Washington Amateur Communication
- Washington Ambulance and Chair Service
- Washington County Department of Public Safety
- Washington County Information Technology

School/School Districts

- Aliquippa School District
- Aliquippa Elementary School
- Beaver Area School District
- Beaver Area Middle School
- Blackhawk School District
- Blackhawk Intermediate School
- Central Valley School District
- Center Grange Primary School
- Hopewell School District
- Margaret Ross Elementary School
- Midland School District
- Lincoln Park Performing Arts Charter School
- South Side Area School District
- South Side High School
- Western Beaver School District
- Western Beaver Jr/Sr. High School

Private/Volunteer Organizations

- American Red Cross
- VISTRA Corp.

Federal Organizations

- Environmental Protection Agency
- Federal Emergency Management Agency
- Nuclear Regulatory Commission
- National Weather Service

SECTION 2: EXERCISE DESIGN SUMMARY

2.1 Exercise Purpose and Design

On December 7, 1979, the President directed the Federal Emergency Management Agency (FEMA) to assume the lead responsibility for all off-site nuclear planning and response. FEMA's activities were conducted pursuant to 44 Code of Federal Regulations (CFR) Parts 350, 351 and 352. These regulations are a key element in the Radiological Emergency Preparedness (REP) Program that was established following the Three Mile Island Nuclear Generating Station accident in March 1979.

44 CFR 350 establishes the policies and procedures for FEMA's initial and continued approval of State and local governments' radiological emergency planning and preparedness for commercial nuclear power plants. This approval is contingent, in part, on State and local government participation in joint exercises with licensees. FEMA's responsibilities in radiological emergency planning for fixed nuclear facilities include the following:

A. Taking the lead in offsite emergency planning and in the review and evaluation of Radiological Emergency Response Plans (RERPs) and procedures developed by State and local governments.

B. Determining whether such plans and procedures can be implemented based on observation and evaluation of exercises conducted by State and local governments.

C. 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. 81, No. 57, March 24, 2016); and

D. Coordinating the activities of the following Federal agencies with responsibilities in the radiological emergency planning process:
- U.S. Department of Commerce
- U.S. Nuclear Regulatory Commission
- U.S. Environmental Protection Agency
- U.S. Department of Energy
- U.S. Department of Health and Human Services
- U.S. Department of Transportation
- U.S. Department of Agriculture
- U.S. Department of the Interior
- U.S. Food and Drug Administration

Representatives of these agencies serve on the Region 3 Regional Assistance Committee (RAC), which is Chaired by FEMA. A Radiological Emergency Preparedness (REP) Plume Exposure Pathway Exercise was conducted during the week of June 11, 2024, to assess the capabilities of State and local emergency preparedness organizations in implementing their RERPs and procedures to protect the public health and safety during a radiological emergency involving the Beaver Valley Power Station (BVPS). The purpose of this exercise report is to present the exercise results and findings on the performance of the off-site response organizations (OROs) 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 FEMA Region 3 RAC Chairperson and approved by FEMA Headquarters.

These reports are provided to the NRC and participating States. State and local governments utilize the findings contained in these reports for the purposes of planning, training, and improving emergency response capabilities.

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

- NUREG-0654/FEMA-REP-1, Rev. 2, December 2019
- Radiological Emergency Preparedness Program Manual, January 2019

Emergency Planning Zone Description:

Beaver Valley Power Station (BVPS) is located in western Pennsylvania on the southern bank of the Ohio River in Beaver County, Pennsylvania. The site is located near Shippingport Borough, about 1.5 miles from Midland, Pennsylvania, on 501 acres of fairly level terrace owned by the Energy Harbor. The latitude for the site is 40°37'18" north; the longitude is 80°26'02" west. Two pressurized water reactors are located on the 17 acres of the parcel occupied by the power station. The operating licenses for the facility were granted in July 1976 (Unit 1) and August 1987 (Unit 2); commercial operations began at the site during October 1976 (Unit 1) and November 1987 (Unit 2). Unit 1 generates an output of 954 megawatts (MW); the Unit 2 output is 978 MW. Sixty-six sirens cover the plume emergency planning zone; there are 52 sirens in Beaver County, 6 sirens in Columbiana County and 8 sirens in Hancock County.

Steep slopes that contributed to the development of river mill towns, where most of the industry and residences are located, characterize the general topography of the region. The region is part of the large industrial complex centered around Pittsburgh, Pennsylvania. The terrain rises from the Ohio River to a maximum elevation of 1,160 feet above mean sea level (MSL). Drainage is predominantly toward the river. The soils in the area are made up of alluvial sands and gravel. The bedrock geology consists of sedimentary formations composed of shale and sandstone. No faults are located under or near the facility. The Ohio River is about 664 feet above MSL, and the plant grade is 735 feet above MSL.

The climate is a humid continental type. The average annual temperature for the area is about 50°F. Annual precipitation is approximately 36 inches. The area around the plant is mostly agricultural or undeveloped. The nearest community is Shippingport Borough, Pennsylvania, which is the parent borough for the site and has a population of 237. The nearest major population center of more than 25,000 people is Pittsburgh, which has an estimated population of 305,841 and lies 22 miles to the southeast. The maximum population distribution, including residents and transients, is 112,445 in the 10-mile EPZ.

Four major industries employ a total of 8,000 persons within 10 miles of the plant. One small airfield (Herron Airport) is also in the 10-mile EPZ. The runway at the airport is oriented so that the extensions do not pass over the plant. No major thoroughfares exist in the immediate vicinity. The main line of the Norfolk Southern Railroad runs parallel to the plant along the north bank of the Ohio River.

2.2 Exercise Objectives, Capabilities and Activities

The objectives of the 2024 Beaver Valley Power Station (BVPS) Plume Exercise were to demonstrate the capabilities of State and local emergency management agencies to mobilize emergency management and emergency response personnel, to activate emergency operations centers and support facilities, and to protect the health, lives, and property of the citizens residing within the 10-mile Emergency Planning Zone (EPZ).

Core capabilities-based planning allowed the exercise planning team to develop the objective and observe associated outcomes through a framework of specific action items. Additionally, the objective and capability target assessed met Radiological Emergency Preparedness Program Manual guidance.

The core capabilities demonstrated during this exercise were:

A. Operational Coordination
B. Planning
C. Environmental Response/Health and Safety
D. Public Information and Warning
E. Mass Care Services
F. Public Health
G. Healthcare and Emergency Medical Services
H. Situational Assessment
I. Critical Transportation
J. Operational Communications
K. Access Control/Identity Verification
L. On-Scene Security
M. Protection
N. Law Enforcement

To demonstrate the ability to communicate between multiple levels of government and provide timely, accurate, and sufficiently detailed information to the public, the emergency management agencies use a variety of resources, including radios, telephones, the Internet, the media, the Emergency Alert System (EAS), and the utility Alert and Notification System (ANS) Sirens, and the FEMA Integrated Public Alert and Warning System (IPAWS). All these communication resources were employed and evaluated. The EAS and ANS were simulated, and media information was prepared but not actually released.

An essential capability of the Radiological Emergency Preparedness Program (REPP) is to evacuate, monitor and decontaminate, if necessary, and provide temporary care and shelter to displaced residents from the EPZ. The ability of the risk/support counties to mobilize personnel and resources to establish reception, monitoring and decontamination, and mass care centers was demonstrated.

The protection of school children is also a vital mission of the REPP. School districts and selected schools demonstrated the capability to communicate and coordinate the collection, evacuation, transportation, and shelter of students attending schools within the EPZ. Provisions for students who live within the EPZ but attend school outside were also evaluated.

2.3 Scenario Summary

The scenario for this exercise involved the no/minimal release of radioactive materials scenario variable. This scenario element involves no radiological release or an unplanned minimal radiological release that requires the site to declare a Site Area Emergency (SAE) Emergency Classification Level (ECL) but does not require the declaration of a General Emergency (GE) ECL. Utilizing this scenario element helps avoid anticipatory responses. Licensees are required to use this variable at least once during each eight-year exercise cycle. Off-site response organizations (OROs) are encouraged, but not required, to participate in this exercise with the Licensee. Due to the impact on ORO resources, the Licensee and appropriate OROs must agree on the use of the "no/minimal release" option as part of the overall scenario development process. If OROs elect to participate in a joint exercise with a no/minimal radiological release scenario, part of the planning for the exercise will include identifying capabilities and other activities/processes that may not be evaluated under such a scenario and determining appropriate alternative demonstration and evaluation venues, so that the OROs have appropriate opportunities to meet their assessment requirements.

For this exercise, the OROs and Licensee agreed on the use of the no/minimal release scenario variable. The Licensee provided exercise injects to continue the exercise beyond the SAE and through the GE and injects that involved a radiological release that prompted protective actions from the OROs and the ability for OROs to meet the exercise requirements as specified in 44 CFR 350.9.

The weather forecast for the afternoon was 62° Fahrenheit with winds 8 miles per hour (mph) from the northeast. The forecast for the evening was for high winds and heavy rain.

An operations crew will be in the Unit 1 Simulator, all drill data for the emergency response facilities will be provided by controllers or by the simulator.

At 1600 the exercise begins. For the postulated event, the effected unit is Unit #1.

Unit #1 is operating at 100% power; Unit #2 is operating at 100% power.

An Alert ECL is declared by 1615. The BVPS Emergency Response Organization is activated.

By 1700 a SAE ECL will be declared based on Loss or Potential Loss of two barriers.

At approximately 1900 the 2024 BVPS and NRC Evaluated Exercise will be terminated for BVPS.

A simulation cell scenario continuation of play packet was provided by the Licensee. A GE ECL was declared by 1930. A radiological release was in progress. A plant based Protective Action Recommendation (PAR) is issued as evacuate 2 Mile 360° radius and 10 Miles downwind Sectors J, K, L, M, N, and all others monitor and prepare. Potassium iodide (KI) recommended for the general public.

Field Monitoring Teams perform actions to locate the release plume and obtain dose readings. Decision makers consider the Licensee PAR, other factors, and OROs make protective actions based on plans and procedures.

At 2000 the exercise is terminated.

SECTION 3: ANALYSIS OF CAPABILITIES

3.1 Exercise Evaluation and Results

Contained in this section are the results and findings of the evaluations of all jurisdictions and locations that participated in the June 11, 2024, Biennial Plume Exposure Pathway 10-mile Emergency Planning Zone (EPZ) Radiological Emergency Preparedness (REP) Exercise and Out-of-Sequence demonstrations which were conducted on May 14 and 16, 2024. These exercises were conducted to demonstrate the ability of the Offsite Response Organizations of State and local government to protect the health and safety of the public in the 10-mile EPZ surrounding the Beaver Valley Power Station.

Each jurisdiction and functional entity were evaluated based on its demonstration of the Exercise Evaluation Area Criteria contained in the REP Exercise Evaluation Methodology. Detailed information on the exercise evaluation area criteria and the Extent of Play Agreement can be found in the Exercise Plan.

3.2 Summary Results of Exercise Evaluation

The matrix presented in Table 3.1, on the following pages, presents the status of the exercise evaluation area criteria from the REP Program Manual that was scheduled for demonstration during this exercise by all participating jurisdictions and functional entities. Exercise evaluation area criteria are listed by number and the demonstration status of the criteria is indicated using the following letters:

- (D) Demonstrated Strength: an observed action, behavior, procedure, and/or practice that is worthy of special notice and positive recognition, note: this is already a common practice that many Regions employ when identifying demonstrated strengths.
- (L1) Level 1 Finding: an observed or identified inadequacy or organizational performance in an assessment activity that could cause a determination that offsite emergency preparedness is not adequate to provide reasonable assurance that appropriate protective measures can be taken in event of a radiological emergency to protect the health and safety of the public living near a Nuclear Power Plant (NPP).
- (L2) Level 2 Finding: an observed or identified inadequacy of organizational performance in an assessment activity that is not considered, by itself, to adversely impact public health and safety.
- (P) Plan Issue: an observed or identified inadequacy in the offsite response organizations' (OROs) emergency plan/implementation procedures, rather than that of the ORO's performance.
- (N) Not Demonstrated: term applied to the status of a REP exercise Evaluation Area Criterion indicating that the ORO, for a justifiable reason, did not demonstrate the Evaluation Area Criterion, as required in the extent-of-play agreement or at the two-year or eight-year interval required in the FEMA REP Program Manual.
- (M) Met: The jurisdiction or functional entity performed all activities under the Demonstration Criterion to the level required in the Extent-of-Play Agreement, with no Level 1 or Level 2 Findings assessed under that criterion in the current exercise and no unresolved prior Level 2 Findings.

Tables 3.1 - Summary of Exercise Evaluation

Table 3.1a Exercise Evaluation Findings and Issues by Classification

Location	Capability Target	Capability Target Description	Status
Commonwealth of Pennsylvania - Commonwealth Response Coordination Center (CRCC)	3.2	Alert and Notification of the Public	P- Open
Commonwealth of Pennsylvania – Washington County-Trinity High School	5.1	Monitoring, Decontamination, Sheltering, and Registration of Evacuees	L2-Closed
Commonwealth of Pennsylvania – Beaver County School - BVUI	1.5	Protective Action Decision Implementation for the Plume Phase	P-Closed

Table 3.1b Exercise Evaluation Assessments Met

Venue	Capability Target	Capability Target Description	Status
Objective 1 : Emergency Operations Management			
Emergency Worker Monitoring and Decontamination Station - Beaver County - Monitoring and Decontamination Station	1.1	Mobilization	M
Reception Center-Allegheny County - Reception Center	1.1	Mobilization	M
Allegheny County Evacuee Monitor-Decon/Vehicle - Monitoring and Decontamination Station, General Public	1.1	Mobilization	M
Mass Care-Allegheny County - Mass Care Center	1.1	Mobilization	M
Reception Center - Butler County - Slippery Rock High School - Reception Center	1.1	Mobilization	M

Evacuee Monitor-Decon/Vehicle Butler County - Slippery Rock High School - Monitoring and Decontamination Station	1.1	Mobilization	M
Mass Care - Butler County - Slippery Rock High School - Mass Care Center	1.1	Mobilization	M
Reception Center- Lawrence County - Mohawk Area High School - Reception Center	1.1	Mobilization	M
Mass Care-Lawrence County - Mohawk Area High School - Reception Center	1.1	Mobilization	M
Evacuee Monitor-Decon/Vehicle-Lawrence County - Mohawk Area High School - Monitoring and Decontamination Station	1.1	Mobilization	M
Reception Center-Washington County - Washington County Fairgrounds - Reception Center	1.1	Mobilization	M
Commonwealth Response Coordination Center (CRCC) Pennsylvania Emergency Management Agency (PEMA) – Station Emergency Operations Center	1.1	Mobilization	M
Commonwealth Joint Information Center (JIC) CRCC - Joint Information Center	1.1	Mobilization	M
Joint Public Information Center (JPIC) - PA & WV - Joint Information Center	1.1	Mobilization	M
PA State Field Monitoring Team MGMT - Field Team Management	1.1	Mobilization	M

PA State Field Monitoring Team A (DEP BRP) - State Field Monitoring Team	1.1	Mobilization	M
State Traffic/Access Control PSP Beaver Barracks - Traffic and Access Control Point (TCP/ACP)	1.1	Mobilization	M
Beaver County Emergency Operations Center - Emergency Operations Center, County, Risk	1.1	Mobilization	M
City of Aliquippa - Emergency Operations Center, Municipal, Risk, PA	1.1	Mobilization	M
Chippewa/Ohioville/Glasgow /South Beaver/Patterson Heights/Patterson Township - Emergency Operations Center	1.1	Mobilization	M
Brighton Township - Emergency Operations Center, Municipal, Risk, PA	1.1	Mobilization	M
Beaver Borough/Bridgewater/ Vanport Township - Emergency Operations Center, Municipal, Risk, PA	1.1	Mobilization	M
Fallston Borough - Emergency Operations Center, Municipal, Risk, PA	1.1	Mobilization	M
Frankfort Springs/Hanover/Independe nce Georgetown/Greene/ Hookstown - Emergency Operations Center, Municipal, Risk, PA	1.1	Mobilization	M
Industry/Midland - Emergency Operations Center, Municipal, Risk, PA	1.1	Mobilization	M

Hopewell Township - Emergency Operations Center, Municipal, Risk, PA	1.1	Mobilization	M
Potter/Raccoon Township/Shippingport - Emergency Operations Center, Municipal, Risk, PA	1.1	Mobilization	M
Monaca/Center Township - Emergency Operations Center, Municipal, Risk, PA	1.1	Mobilization	M
Butler County EOC - Emergency Operations Center, County, Support	1.1	Mobilization	M
Allegheny County EOC - Emergency Operations Center, County, Support	1.1	Mobilization	M
Allegheny County EOC - Emergency Operations Center, County, Support	1.1	Mobilization	M
South Heights Borough - Emergency Operations Center, Municipal, Risk, PA	1.1	Mobilization	M
Lawrence County EOC - Emergency Operations Center, County, Support	1.1	Mobilization	M
Washington County EOC - Emergency Operations Center, County, Support	1.1	Mobilization	M
Allegheny County Mass Care - Mass Care Center	1.1	Mobilization	M
Washington County Evacuee Monitor-Decon/Vehicle - Monitoring and Decontamination Station, General Public	1.1	Mobilization	M
Washington County Mass Care - Mass Care Center	1.1	Mobilization	M

PA State Field Monitoring Team B (DEP BRP) - Field Monitoring Team - State Field Monitoring Team	1.1	Mobilization	M
Emergency Worker Monitoring and Decontamination Station - Beaver County - Monitoring and Decontamination Station	1.2	Direction and Control	M
Reception Center-Allegheny County - Reception Center	1.2	Direction and Control	M
Allegheny County Evacuee Monitor-Decon/Vehicle - Monitoring and Decontamination Station, General Public	1.2	Direction and Control	M
Mass Care-Allegheny County - Mass Care Center	1.2	Direction and Control	M
Reception Center - Butler County - Slippery Rock High School - Reception Center	1.2	Direction and Control	M
Evacuee Monitor-Decon/Vehicle Butler County - Slippery Rock High School - Monitoring and Decontamination Station	1.2	Direction and Control	M
Mass Care - Butler County - Slippery Rock High School - Mass Care Center	1.2	Direction and Control	M
Reception Center- Lawrence County - Mohawk Area High School - Reception Center	1.2	Direction and Control	M
Mass Care-Lawrence County - Mohawk Area High School - Reception Center	1.2	Direction and Control	M

Evacuee Monitor-Decon/Vehicle-Lawrence County - Mohawk Area High School - Monitoring and Decontamination	1.2	Direction and Control	M
Reception Center-Washington County - Washington County Fairgrounds - Reception Center	1.2	Direction and Control	M
Commonwealth Response Coordination Center (CRCC) Pennsylvania Emergency Management Agency (PEMA) – State Emergency Operations Center	1.2	Direction and Control	M
Commonwealth Joint Information Center (JIC) CRCC - Joint Information Center	1.2	Direction and Control	M
Joint Public Information Center (JPIC) - PA & WV - Joint Information Center	1.2	Direction and Control	M
PA State Field Monitoring Team MGMT - Field Team Management	1.2	Direction and Control	M
PA State Field Monitoring Team A (DEP BRP) - State Field Monitoring Team	1.2	Direction and Control	M
State Traffic/Access Control PSP Beaver Barracks - Traffic and Access Control Point (TCP/ACP)	1.2	Direction and Control	M
Beaver County Emergency Operations Center - Emergency Operations Center, County, Risk	1.2	Direction and Control	M
City of Aliquippa - Emergency Operations Center, Municipal, Risk, PA	1.2	Direction and Control	M

Chippewa/Ohioville/Glasgow /South Beaver/Patterson Heights/Patterson Township - Emergency Operations Center	1.2	Direction and Control	M
Brighton Township - Emergency Operations Center, Municipal, Risk, PA	1.2	Direction and Control	M
Beaver Borough/Bridgewater/Vanport Township - Emergency Operations Center, Municipal, Risk, PA	1.2	Direction and Control	M
Fallston Borough - Emergency Operations Center, Municipal, Risk, PA	1.2	Direction and Control	M
Frankfort Springs/Hanover/ Independence Georgetown/ Greene/ Hookstown - Emergency Operations Center, Municipal, Risk, PA	1.2	Direction and Control	M
Industry/Midland - Emergency Operations Center, Municipal, Risk, PA	1.2	Direction and Control	M
Hopewell Township - Emergency Operations Center, Municipal, Risk, PA	1.2	Direction and Control	M
Potter/Raccoon Township/Shippingport - Emergency Operations Center, Municipal, Risk, PA	1.2	Direction and Control	M
Monaca/Center Township - Emergency Operations Center, Municipal, Risk, PA	1.2	Direction and Control	M
Butler County EOC - Emergency Operations Center, County, Support	1.2	Direction and Control	M
Allegheny County EOC - Emergency Operations Center, County, Support	1.2	Direction and Control	M

Allegheny County EOC - Emergency Operations Center, County, Support	1.2	Direction and Control	M
South Heights Borough - Emergency Operations Center, Municipal, Risk, PA	1.2	Direction and Control	M
Lawrence County EOC - Emergency Operations Center, County, Support	1.2	Direction and Control	M
Washington County EOC - Emergency Operations Center, County, Support	1.2	Direction and Control	M
Allegheny County Mass Care - Mass Care Center	1.2	Direction and Control	M
Washington County Evacuee Monitor-Decon/Vehicle - Monitoring and Decontamination Station, General Public	1.2	Direction and Control	M
Washington County Mass Care - Mass Care Center	1.2	Direction and Control	M
Beaver Co. Hazmat Garage Equipment Inventory - Staging Area	1.2	Direction and Control	M
PA State Field Monitoring Team B (DEP BRP) - Field Monitoring Team - State Field Monitoring Team	1.2	Direction and Control	M
Accident Assessment Center (State EOC-BRP) Harrisburg - State Accident Assessment Center	1.3	Protective Action Recommendations	M
Commonwealth Response Coordination Center (CRCC) Pennsylvania Emergency Management Agency (PEMA)	1.4	Protective Action Decisions for the Plume Phase	M
Accident Assessment Center (State EOC-BRP) Harrisburg - State Accident Assessment Center	1.4	Protective Action Decisions for the Plume Phase	M

Beaver Area School District - School Districts	1.5	Protective Action Decision Implementation for the Plume Phase	M
Blackhawk School District - School Districts	1.5	Protective Action Decision Implementation for the Plume Phase	M
Blackhawk Intermediate School - School	1.5	Protective Action Decision Implementation for the Plume Phase	M
Central Valley School District - School Districts	1.5	Protective Action Decision Implementation for the Plume Phase	M
Center Grange Primary School - School	1.5	Protective Action Decision Implementation for the Plume Phase	M
Hopewell Area School District - School Districts	1.5	Protective Action Decision Implementation for the Plume Phase	M
Margaret Ross Elementary School - School	1.5	Protective Action Decision Implementation for the Plume Phase Action Decision	M
Midland Borough School District - School Districts	1.5	Protective Action Decision Implementation for the Plume Phase	M
Lincoln Park Performing Arts Charter School - School	1.5	Protective Action Decision Implementation for the Plume Phase	M
South Side High School - School	1.5	Protective Action Decision Implementation for the Plume Phase	M
South Side Area School District - School Districts	1.5	Protective Action Decision Implementation for the Plume Phase	M
Western Beaver Junior / Senior High School - School	1.5	Protective Action Decision Implementation for the Plume Phase	M
Western Beaver County School District - School Districts	1.5	Protective Action Decision Implementation for the Plume Phase	M
Commonwealth Response Coordination Center (CRCC) Pennsylvania Emergency Management Agency (PEMA)	1.5	Protective Action Decision Implementation for the Plume Phase	M
Beaver County Emergency Operations Center - Emergency Operations Center, County, Risk	1.5	Protective Action Decision Implementation for the Plume Phase Action Decision	M

City of Aliquippa - Emergency Operations Center, Municipal, Risk, PA	1.5	Protective Action Decision Implementation for the Plume Phase	M
Chippewa/Ohioville/Glasgow /South Beaver/Patterson Heights/Patterson Township - Emergency Operations Center	1.5	Protective Action Decision Implementation for the Plume Phase	M
Brighton Township - Emergency Operations Center, Municipal, Risk, PA	1.5	Protective Action Decision Implementation for the Plume Phase	M
Beaver Borough/Bridgewater/ Vanport Township - Emergency Operations Center, Municipal, Risk, PA	1.5	Protective Action Decision Implementation for the Plume Phase	M
Fallston Borough - Emergency Operations Center, Municipal, Risk, PA	1.5	Protective Action Decision Implementation for the Plume Phase	M
Frankfort Springs/Hanover/Independence Georgetown/Greene/Hookstown - Emergency Operations Center, Municipal, Risk, PA	1.5	Protective Action Decision Implementation for the Plume Phase	M
Industry/Midland - Emergency Operations Center, Municipal, Risk, PA	1.5	Protective Action Decision Implementation for the Plume Phase	M
Hopewell Township - Emergency Operations Center, Municipal, Risk, PA	1.5	Protective Action Decision Implementation for the Plume Phase	M
Potter/Raccoon Township/Shippingport - Emergency Operations Center, Municipal, Risk, PA	1.5	Protective Action Decision Implementation for the Plume Phase	M
Monaca/Center Township - Emergency Operations Center, Municipal, Risk, PA	1.5	Protective Action Decision Implementation for the Plume Phase	M

South Heights Borough - Emergency Operations Center, Municipal, Risk, PA	1.5	Protective Action Decision Implementation for the Plume Phase	M
Aliquippa School District - School Districts	1.5	Protective Action Decision Implementation for the Plume Phase	M
Beaver Area Middle School - School	1.5	Protective Action Decision Implementation for the Plume Phase	M
Beaver County EOC School Coordination - School Districts - School Districts	1.5	Protective Action Decision Implementation for the Plume Phase	P
Objective 2 : Exposure Control			
Accident Assessment Center (State EOC-BRP) Harrisburg - State Accident Assessment Center	2.1	Emergency Worker Exposure Control Decision-Making Process	M
Mass Care-Lawrence County - Mohawk Area High School - Reception Center	2.2	Emergency Worker Exposure Control Management	M
Chippewa/Ohioville/Glasgow /South Beaver/Patterson Heights/Patterson Township - Emergency Operations	2.2	Emergency Worker Exposure Control Management	M
Reception Center Monitoring/Decontamination - Weir High School Complex - Reception Center	2.2	Emergency Worker Exposure Control Management	M
Emergency Worker Monitoring and Decontamination Station - Beaver County - Monitoring and Decontamination	2.2	Emergency Worker Exposure Control Management	M
Reception Center-Allegheny County - Reception Center	2.2	Emergency Worker Exposure Control Management	M
Allegheny County Evacuee Monitor-Decon/Vehicle - Monitoring and Decontamination Station, General Public	2.2	Emergency Worker Exposure Control Management	M

Reception Center - Butler County - Slippery Rock High School - Reception Center	2.2	Emergency Worker Exposure Control Management	M
Evacuee Monitor-Decon/Vehicle Butler County - Slippery Rock High School - Monitoring and Decontamination Station	2.2	Emergency Worker Exposure Control Management	M
Reception Center- Lawrence County - Mohawk Area High School - Reception Center	2.2	Emergency Worker Exposure Control Management	M
Evacuee Monitor-Decon/Vehicle-Lawrence County - Mohawk Area High School - Monitoring and Decontamination Station	2.2	Emergency Worker Exposure Control Management	M
Reception Center-Washington County - Washington County Fairgrounds - Reception Center	2.2	Emergency Worker Exposure Control Management	M
PA State Field Monitoring Team MGMT - Field Team Management	2.2	Emergency Worker Exposure Control Management	M
PA State Field Monitoring Team A (DEP BRP) - State Field Monitoring Team	2.2	Emergency Worker Exposure Control Management	M
State Traffic/Access Control PSP Beaver Barracks - Traffic and Access Control Point (TCP/ACP)	2.2	Emergency Worker Exposure Control Management	M
Beaver County Emergency Operations Center - Emergency Operations Center, County, Risk	2.2	Emergency Worker Exposure Control Management	M
City of Aliquippa - Emergency Operations Center, Municipal, Risk, PA	2.2	Emergency Worker Exposure Control Management	M

South Heights Borough - Emergency Operations Center, Municipal, Risk, PA	2.2	Emergency Worker Exposure Control Management	M
Beaver Borough/ Bridgewater /Vanport Township - Emergency Operations Center, Municipal, Risk, PA	2.2	Emergency Worker Exposure Control Management	M
Fallston Borough - Emergency Operations Center, Municipal, Risk, PA	2.2	Emergency Worker Exposure Control Management	M
Frankfort Springs/Hanover/ Independence/Georgetown/ Greene/Hookstown - Emergency Operations Center, Municipal, Risk, PA	2.2	Emergency Worker Exposure Control Management	M
Industry/Midland - Emergency Operations Center, Municipal, Risk, PA	2.2	Emergency Worker Exposure Control Management	M
Hopewell Township - Emergency Operations Center, Municipal, Risk, PA	2.2	Emergency Worker Exposure Control Management	M
Potter/Raccoon Township/Shippingport - Emergency Operations Center, Municipal, Risk, PA	2.2	Emergency Worker Exposure Control Management	M
Monaca/Center Township - Emergency Operations Center, Municipal, Risk, PA	2.2	Emergency Worker Exposure Control Management	M
PA State Field Monitoring Team B (DEP BRP) - Field Monitoring Team - State Field Monitoring Team	2.2	Emergency Worker Exposure Control Management	M
Brighton Township - Emergency Operations Center, Municipal, Risk, PA	2.2	Emergency Worker Exposure Control Management	M

Washington County Evacuee Monitor-Decon/Vehicle - Monitoring and Decontamination Station, General Public	2.2	Emergency Worker Exposure Control Management	M
Beaver Co. Hazmat Garage Equipment Inventory - Staging Area	2.2	Emergency Worker Exposure Control Management	M
Objective 3 : Alert and Notification			
Mass Care-Allegheny County - Mass Care Center	3.1	Communications	M
Washington County Mass Care - Mass Care Center	3.1	Communications	M
PA State Field Monitoring Team B (DEP BRP) - Field Monitoring Team - State Field Monitoring Team	3.1	Communications	M
Allegheny County Evacuee Monitor-Decon/Vehicle - Monitoring and Decontamination Station, General Public	3.1	Communications	M
Evacuee Monitor-Decon/Vehicle-Lawrence County - Mohawk Area High School - Monitoring and Decontamination Station	3.1	Communications	M
Reception Center-Washington County - Washington County Fairgrounds - Reception Center	3.1	Communications	M
Mass Care-Lawrence County - Mohawk Area High School - Reception Center	3.1	Communications	M

Commonwealth Response Coordination Center (CRCC) Pennsylvania Emergency Management Agency (PEMA) – State Emergency Operations Center	3.1	Communications	M
Reception Center- Lawrence County - Mohawk Area High School - Reception Center	3.1	Communications	M
Mass Care - Butler County - Slippery Rock High School - Mass Care Center	3.1	Communications	M
Commonwealth Joint Information Center (JIC) CRCC - Joint Information Center	3.1	Communications	M
Evacuee Monitor-Decon/Vehicle Butler County - Slippery Rock High School - Monitoring and Decontamination Station	3.1	Communications	M
Reception Center - Butler County - Slippery Rock High School - Reception Center	3.1	Communications	M
City of Aliquippa - Emergency Operations Center, Municipal, Risk, PA	3.1	Communications	M
Joint Public Information Center (JPIC) - PA & WV - Joint Information Center	3.1	Communications	M
PA State Field Monitoring Team MGMT - Field Team Management	3.1	Communications	M
Reception Center-Allegheny County - Reception Center	3.1	Communications	M

Emergency Worker Monitoring and Decontamination Station - Beaver County - Monitoring and Decontamination Station	3.1	Communications	M
PA State Field Monitoring Team A (DEP BRP) - State Field Monitoring Team	3.1	Communications	M
State Traffic/Access Control PSP Beaver Barracks - Traffic and Access Control Point (TCP/ACP)	3.1	Communications	M
Beaver County Emergency Operations Center - Emergency Operations Center, County, Risk	3.1	Communications	M
Washington County Evacuee Monitor-Decon/Vehicle - Monitoring and Decontamination Station, General Public	3.1	Communications	M
Lawrence County EOC - Emergency Operations Center, County, Support	3.1	Communications	M
Chippewa/Ohioville/Glasgow /South Beaver/Patterson Heights/Patterson Township - Emergency Operations Center	3.1	Communications	M
Brighton Township - Emergency Operations Center, Municipal, Risk, PA	3.1	Communications	M
Fallston Borough - Emergency Operations Center, Municipal, Risk, PA	3.1	Communications	M
Frankfort Springs/Hanover/ Independence Georgetown/ Greene/Hookstown - Emergency Operations Center, Municipal, Risk, PA	3.1	Communications	M

Industry/Midland - Emergency Operations Center, Municipal, Risk, PA	3.1	Communications	M
Hopewell Township - Emergency Operations Center, Municipal, Risk, PA	3.1	Communications	M
Potter/Raccoon Township/Shippingport - Emergency Operations Center, Municipal, Risk, PA	3.1	Communications	M
Monaca/Center Township - Emergency Operations Center, Municipal, Risk, PA	3.1	Communications	M
Butler County EOC - Emergency Operations Center, County, Support	3.1	Communications	M
Allegheny County EOC - Emergency Operations Center, County, Support	3.1	Communications	M
South Heights Borough - Emergency Operations Center, Municipal, Risk, PA	3.1	Communications	M
Allegheny County Mass Care - Mass Care Center	3.1	Communications	M
Washington County EOC - Emergency Operations Center, County, Support	3.1	Communications	M
Beaver Borough/Bridgewater/ Vanport Township - Emergency Operations Center, Municipal, Risk, PA	3.1	Communications	M
Allegheny County EOC - Emergency Operations Center, County, Support	3.1	Communications	M
Beaver County Emergency Operations Center - Emergency Operations Center, County, Risk	3.2	Alert and Notification to the Public	M

Fallston Borough - Emergency Operations Center, Municipal, Risk, PA	3.2	Alert and Notification to the Public	M
Frankfort Springs/Hanover/Independence Georgetown/Greene/ Hookstown - Emergency Operations Center, Municipal, Risk, PA	3.2	Alert and Notification to the Public	M
Industry/Midland - Emergency Operations Center, Municipal, Risk, PA	3.2	Alert and Notification to the Public	M
Hopewell Township - Emergency Operations Center, Municipal, Risk, PA	3.2	Alert and Notification to the Public	M
Beaver Borough/Bridgewater/ Vanport Township - Emergency Operations Center, Municipal, Risk, PA	3.2	Alert and Notification to the Public	M
Potter/Raccoon Township/Shippingport - Emergency Operations Center, Municipal, Risk, PA	3.2	Alert and Notification to the Public	M
Chippewa/Ohioville/Glasgow /South Beaver/Patterson Heights/Patterson Township - Emergency Operations Center	3.2	Alert and Notification to the Public	M
Monaca/Center Township - Emergency Operations Center, Municipal, Risk, PA	3.2	Alert and Notification to the Public	M
City of Aliquippa - Emergency Operations Center, Municipal, Risk, PA	3.2	Alert and Notification to the Public	M
South Heights Borough - Emergency Operations Center, Municipal, Risk, PA	3.2	Alert and Notification to the Public	M

Brighton Township - Emergency Operations Center, Municipal, Risk, PA	3.2	Alert and Notification to the Public	M
Commonwealth Response Coordination Center (CRCC) Pennsylvania Emergency Management Agency (PEMA) – State Emergency Operations Center	3.2	Alert and Notification to the Public	P
Joint Public Information Center (JPIC) - PA & WV - Joint Information Center	3.3	Emergency Information and Instructions for the Public and News Media	M
Allegheny County EOC - Emergency Operations Center, County, Support	3.3	Emergency Information and Instructions for the Public and News Media	M
Allegheny County EOC - Emergency Operations Center, County, Support	3.3	Emergency Information and Instructions for the Public and News Media	M
Butler County EOC - Emergency Operations Center, County, Support	3.3	Emergency Information and Instructions for the Public and News Media	M
Beaver County Emergency Operations Center - Emergency Operations Center, County, Risk	3.3	Emergency Information and Instructions for the Public and News Media	M
Commonwealth Joint Information Center (JIC) CRCC - Joint Information Center	3.3	Emergency Information and Instructions for the Public and News Media	M
Lawrence County EOC - Emergency Operations Center, County, Support	3.3	Emergency Information and Instructions for the Public and News Media	M
Washington County EOC - Emergency Operations Center, County, Support	3.3	Emergency Information and Instructions for the Public and News Media	M
Objective 4 : Detect, Measure, Sample, Analyze, and Assess			
PA State Field Monitoring Team MGMT - Field Team Management	4.1	Field Monitoring Teams Management	M

PA State Field Monitoring Team A (DEP BRP) - State Field Monitoring Team	4.2	Plume Phase Measurements and Sampling	M
PA State Field Monitoring Team B (DEP BRP) - Field Monitoring Team - State Field Monitoring Team	4.2	Plume Phase Measurements and Sampling	M
Accident Assessment Center (State EOC-BRP) Harrisburg - State Accident Assessment Center	4.5	Plume Phase Analysis and Dose Assessment	M
Objective 5 : Operate			
Washington County Evacuee Monitor-Decon/Vehicle - Monitoring and Decontamination Station, General Public	5.1	Monitoring, Decontamination, Sheltering, and Registration of Evacuees	L2
Mass Care - Butler County - Slippery Rock High School - Mass Care Center	5.1	Monitoring, Decontamination, Sheltering, and Registration of Evacuees	M
Reception Center-Allegheny County - Reception Center	5.1	Monitoring, Decontamination, Sheltering, and Registration of Evacuees	M
Allegheny County Evacuee Monitor-Decon/Vehicle - Monitoring and Decontamination Station, General Public	5.1	Monitoring, Decontamination, Sheltering, and Registration of Evacuees	M
Mass Care-Allegheny County - Mass Care Center	5.1	Monitoring, Decontamination, Sheltering, and Registration of Evacuees	M
Reception Center - Butler County - Slippery Rock High School - Reception Center	5.1	Monitoring, Decontamination, Sheltering, and Registration of Evacuees	M
Evacuee Monitor-Decon/Vehicle Butler County - Slippery Rock High School - Monitoring and Decontamination Station	5.1	Monitoring, Decontamination, Sheltering, and Registration of Evacuees	M
Reception Center- Lawrence County - Mohawk Area High School - Reception Center	5.1	Monitoring, Decontamination, Sheltering, and Registration of Evacuees	M

Mass Care-Lawrence County - Mohawk Area High School - Reception Center	5.1	Monitoring, Decontamination, Sheltering, and Registration of Evacuees	M
Evacuee Monitor-Decon/Vehicle-Lawrence County- Mohawk Area High School- Monitoring and Decontamination Station	5.1	Monitoring, Decontamination, Sheltering, and Registration of Evacuees	M
Reception Center-Washington County-Washington County Fairgrounds- Reception Center	5.1	Monitoring, Decontamination, Sheltering, and Registration of Evacuees	M
Allegheny County Mass Care - Mass Care Center	5.1	Monitoring, Decontamination, Sheltering, and Registration of Evacuees	M
Washington County Mass Care - Mass Care Center	5.1	Monitoring, Decontamination, Sheltering, and Registration of Evacuees	M
Emergency Worker Monitoring and Decontamination Station - Beaver County - Monitoring and Decontamination Station	5.2	Monitoring and Decontamination of Emergency Workers, Equipment, and Vehicles	M
Industry/Midland - Emergency Operations Center, Municipal, Risk, PA	5.4	Traffic and Access Control	M
State Traffic/Access Control PSP Beaver Barracks - Traffic and Access Control Point (TCP/ACP)	5.4	Traffic and Access Control	M
City of Aliquippa - Emergency Operations Center, Municipal, Risk, PA	5.4	Traffic and Access Control	M
Chippewa/Ohioville/Glasgow /South Beaver/Patterson Heights/Patterson Township - Emergency Operations Center	5.4	Traffic and Access Control	M

Brighton Township - Emergency Operations Center, Municipal, Risk, PA	5.4	Traffic and Access Control	M
Beaver Borough/Bridgewater/ Vanport Township - Emergency Operations Center, Municipal, Risk, PA	5.4	Traffic and Access Control	M
Fallston Borough - Emergency Operations Center, Municipal, Risk, PA	5.4	Traffic and Access Control	M
Frankfort Springs/Hanover/ Independence Georgetown/ Greene/Hookstown - Emergency Operations Center, Municipal, Risk, PA	5.4	Traffic and Access Control	M
Hopewell Township - Emergency Operations Center, Municipal, Risk, PA	5.4	Traffic and Access Control	M
Potter/Raccoon Township/Shippingport - Emergency Operations Center, Municipal, Risk, PA	5.4	Traffic and Access Control	M
Monaca/Center Township - Emergency Operations Center, Municipal, Risk, PA	5.4	Traffic and Access Control	M
South Heights Borough - Emergency Operations Center, Municipal, Risk, PA	5.4	Traffic and Access Control	M
Beaver County Emergency Operations Center - Emergency Operations Center, County, Risk	5.4	Traffic and Access Control	M

3.3 Criteria Evaluation Summaries

3.3.1 State Jurisdictions

In summary, the status of DHS/FEMA criteria for the State jurisdictions are as follows:

3.3.1.1 Commonwealth of Pennsylvania

3.3.1.1.1 Commonwealth of Pennsylvania Response Coordination Center (CRCC)

a. Met: 1.1, 1.2, 1.4, 1.5, 3.1
b. Level 1 Findings: NONE
c. Level 2 Findings: NONE
d. Plan Issues: ONE

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CAPABILITY TARGET 3.2 Alert and Notification to the Public

DESCRIPTION: The two EAS messages issued by the Pennsylvania Emergency Management Agency (PEMA) at the SAE and GE contained outdated information, and the link for the public to receive additional information did not work.

CONDITIONS: The two EAS messages issued by the Pennsylvania Emergency Management Agency (PEMA) at the SAE and GE contained outdated information and the link for the public to receive additional information did not work. The EAS messages referred the public to the phone directory and did not include current preparedness information, such as the Beaver Valley Emergency Preparedness Brochure, produced and distributed on an annual basis.

POSSIBLE CAUSE: PEMA planners have not loaded current, updated EAS templates into the EAS sending device at the PEMA Watch Unit.

REFERENCE: NUREG-0654/FEMA-REP-1, Rev. 2 (E.2, E.4, E.5, F.3, and O.1) 2019 DHS/FEMA Radiological Emergency Preparedness Manual Capability Target 3.2

EFFECTS: The public would not have access to accurate emergency information, which could lead to confusion when preparing for protective actions.

RECOMMENDATION: PEMA should revise the EAS templates as soon as practicable to ensure up-to-date emergency information is available to the public.

e. Prior Issues – Resolved: NONE
f. Prior Issues - Unresolved: NONE

3.3.1.1.2 Commonwealth of Pennsylvania Joint Information Center

a. Met: 1.1, 1.2, 3.1, 3.3
b. Level 1 Findings: NONE
c. Level 2 Findings: NONE
d. Plan Issues: NONE
e. Prior Issues – Resolved: NONE
f. Prior Issues - Unresolved: NONE

3.3.1.1.3 Pennsylvania Accident Assessment Center at the CRCC

a. Met: 1.3, 1.4, 2.1, 4.5,
b. Level 1 Findings: NONE
c. Level 2 Findings: NONE
d. Plan Issues: NONE
e. Prior Issues -Resolved: NONE
f. Prior Issues - Unresolved: NONE

3.3.1.1.4 Joint Public Information Center

a. Met: 1.1, 1.2, 3.1, 3.3
b. Level 1 Findings: NONE
c. Level 2 Findings: NONE
d. Plan Issues: NONE
e. Prior Issues – Resolved: NONE
f. Prior Issues - Unresolved: NONE

3.3.1.1.5 Pennsylvania State Field Monitoring Management

a. Met: 1.1, 1.2, 2.2, 3.1, 4.1
b. Level 1 Findings: NONE
c. Level 2 Findings: NONE
d. Plan Issues: NONE
e. Prior Issues – Resolved: NONE
f. Prior Issues - Unresolved: NONE

3.3.1.1.6 Pennsylvania State Field Monitoring Team A

a. Met: 1.1, 1.2, 2.2, 3.1, 4.2
b. Level 1 Findings: NONE
c. Level 2 Findings: NONE
d. Plan Issues: NONE
e. Prior Issues – Resolved: NONE
f. Prior Issues - Unresolved: NONE

3.3.1.1.7 Pennsylvania State Field Monitoring Team B

a. Met: 1.1, 1.2, 2.2, 3.1, 4.2
b. Level 1 Findings: NONE
c. Level 2 Findings: NONE
d. Plan Issues: NONE
e. Prior Issues – Resolved: NONE
f. Prior Issues - Unresolved: NONE

3.3.1.1.8 Pennsylvania State Police – State Traffic/Access Control

a. Met: 1.1, 1.2, 2.2, 3.1, 5.4

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 Pennsylvania Risk Jurisdictions

In summary, the status of DHS/FEMA criteria for the Risk jurisdictions are as follows:

3.3.2.1 Beaver County Emergency Operations Center

a. Met: 1.1, 1.2, 1.5, 2.2, 3.1, 3.2, 3.3, 5.4
b. Level 1 Findings: NONE
c. Level 2 Findings: NONE
d. Plan Issues: NONE
a. Prior Issues – Resolved: NONE
f. Prior Issues - Unresolved: NONE

3.3.2.2 Beaver County Emergency Operation Center Hazmat Garage

a. Met: 1.2, 2.2
b. Level 1 Findings: NONE
c. Level 2 Findings: ONE
d. Plan Issues: NONE
e. Prior Issues – Resolved: NONE
f. Prior Issues - Unresolved: NONE

3.3.2.3 Beaver County Emergency Worker Monitoring/Decontamination Station - Crescent Fire Department

a. Met: 1.1, 1.2, 1.5, 2.2, 3.1, 5.4
b. Level 1 Findings: NONE
c. Level 2 Findings: NONE
d. Plan Issues: ONE
e. Prior Issues – Resolved: NONE
f. Prior Issues - Unresolved: NONE

3.3.2.4 City of Aliquippa Emergency Operations Center

a. Met: 1.1, 1.2, 2.2 3.1, 5.2
b. Level 1 Findings: NONE
c. Level 2 Findings: NONE
d. Plan Issues: NONE
e. Prior Issues – Resolved: NONE
f. Prior Issues - Unresolved: NONE

3.3.2.5 Beaver Borough/Bridgewater Borough/Vanport Township Emergency Operations Center

a. Met: 1.1, 1.2, 1.5, 2.2, 3.1, 3.2, 5.4
b. Level 1 Findings: NONE
c. Level 2 Findings: NONE
d. Plan Issues: NONE
e. Prior Issues – Resolved: NONE

f. Prior Issues - Unresolved: NONE

3.3.2.6 Brighton Township Emergency Operations Center

a. Met: 1.1, 1.2, 1.5, 2.2, 3.1, 3.2, 5.4
b. Level 1 Findings: NONE
c. Level 2 Findings: NONE
d. Plan Issues: NONE
e. Prior Issues – Resolved: NONE
f. Prior Issues - Unresolved: NONE

3.3.2.7 Chippewa Township/Ohioville Borough/Glasgow Borough/South Beaver Township/Patterson Heights Borough/Patterson Township Emergency Operations Center

a. Met: 1.1, 1.2, 1.5, 2.2, 3.1, 3.2, 5.4
b. Level 1 Findings: NONE
c. Level 2 Findings: NONE
d. Plan Issues: NONE
e. Prior Issues – Resolved: NONE
f. Prior Issues - Unresolved: NONE

3.3.2.8 Fallston Borough Emergency Operations Center

a. Met: 1.1, 1.2, 1.5, 2.2, 3.1, 3.2, 5.4
b. Level 1 Findings: NONE
c. Level 2 Findings: NONE
d. Plan Issues: NONE
e. Prior Issues – Resolved: NONE
f. Prior Issues - Unresolved: NONE

3.3.2.9 Frankfort Springs Borough/Hanover Township/Independence Township/Georgetown Borough/Greene Township/Hookstown Borough Emergency Operations Center

a. Met: 1.1, 1.2, 1.5, 2.2, 3.1, 3.2, 5.4
b. Level 1 Findings: NONE
c. Level 2 Findings: NONE
d. Plan Issues: NONE
e. Prior Issues – Resolved: NONE
f. Prior Issues - Unresolved: NONE

3.3.2.10 Hopewell Township Emergency Operations Center

a. Met: 1.1, 1.2, 1.5, 2.2, 3.1, 3.2, 5.4
b. Level 1 Findings: NONE
c. Level 2 Findings: NONE
d. Plan Issues: NONE
e. Prior Issues – Resolved: NONE
f. Prior Issues - Unresolved: NONE

3.3.2.11 Industry Borough/Midland Borough Emergency Operations Center

a. Met: 1.1, 1.2, 1.5, 2.2, 3.1, 3.2, 5.4
b. Level 1 Findings: NONE

c. Level 2 Findings: NONE
d. Plan Issues: NONE
e. Prior Issues – Resolved: NONE
f. Prior Issues - Unresolved: NONE

3.3.2.12 Monaca Borough/Center Township Emergency Operations Center

a. Met: 1.1, 1.2, 1.5, 2.2, 3.1, 3.2, 5.4
b. Level 1 Findings: NONE
c. Level 2 Findings: NONE
d. Plan Issues: NONE
e. Prior Issues - Resolved: NONE
f. Prior Issues - Unresolved: NONE

3.3.2.13 Potter Township/Raccoon Township/Shippingport Borough Emergency Operations Center

a. Met: 1.1, 1.2, 1.5, 2.2, 3.1, 3.2, 5.4
b. Level 1 Findings: NONE
c. Level 2 Findings: NONE
d. Plan Issues: NONE
e. Prior Issues – Resolved: NONE
f. Prior Issues - Unresolved: NONE

3.3.2.14 South Heights Borough Emergency Operations Center

a. Met: 1.1, 1.2, 1.5, 2.2, 3.1, 3.2, 5.4
b. Level 1 Findings: NONE
c. Level 2 Findings: NONE
d. Plan Issues: NONE
e. Prior Issues – Resolved: NONE
f. Prior Issues - Unresolved: NONE

Beaver County Risk Schools

In summary, the status of DHS/FEMA capability targets for the risk schools are as follows:

3.3.3.1 Beaver County Emergency Operations Center - Beaver Valley Intermediate Unit (BVIU)

a. Met: NONE
b. Level 1 Findings: NONE
c. Level 2 Findings: NONE
d. Plan Issues: ONE

ISSUE ON: 24-24-1.5 P-002

CAPABILITY TARGET: 1.5 Protective Action Decision Implementation for the Plume Phase

DESCRIPTION: During the school exercise, the Principal at the Western Beaver Junior/Senior High School, in consultation with the Superintendent at the Western Beaver School District, directed an early dismissal of students back

to their residences without consulting the Beaver County Emergency Management Agency during a rapidly escalating condition at the Beaver Valley Power Station.

CONDITION: The Beaver County Radiological Emergency Response Standard Operation Guide (SOG) for Superintendents and Principals does not provide adequate instructions for users. Specifically, the checklist portion of the plan does not provide adequate instructions for Superintendents and Principals regarding the early dismissal of students.

POSSIBLE CAUSE: The Beaver County Radiological Emergency Response SOG lacks clarity on the early dismissal of students.

REFERENCE: • NUREG-0654/FEMA-REP-1, Rev. 2 (A.4, C.2.a, D.4, G.1, J.6, J.7, J.8, J.8.b, J.10, J.10.a, J.10.b, J.11.c-g, and O.1)
• DHS/FEMA 2019 Radiological Emergency Preparedness Program Manual, Part III, Objective 1 Emergency Operations Management, Capability Targets 1.4 and 1.5
• Beaver County Radiological Emergency Response Standard Operations Guide (SOG)
• PEMA Annex E, Radiological Emergency Preparedness Response to Nuclear Power Plant Incidents, School Radiological Plans Interim Guidance, dated January 10, 2022
• 2023-2024 Beaver County Emergency Preparedness Brochure

EFFECT: Without clear instructions in plans and procedures, school officials may make protective actions that are contrary to preparedness information, and that could lead to a protective action that potentially expose children, staff, faculty, and school bus drivers to the harmful effects of ionizing radiation.

RECOMMENDATIONS: The Beaver County Radiological Emergency Response Standard Operation Procedure (SOG) should be revised to remove language of early dismissal of students, which is contrary to emergency preparedness information.
• Training should be conducted with school superintendents and principals to assure awareness with plan changes.
• Clear instructions should be provided on every page of the checklist portion of the SOG that requires coordination with the Beaver County Emergency Management Agency on any protective action decisions made by school officials.

CORRECTIVE ACTION/RESLOVED: On June 11, 2024 the Beaver County Emergency Management Agency provided FEMA with an updated procedure that adequately addressed the plan issue.

e. Prior Issues - Resolved: NONE
f. Prior Issues - Unresolved: NONE

3.3.3.2 Beaver County - Aliquippa School District

a. Met: 1.5
b. Level 1 Findings: NONE
c. Level 2 Findings: NONE
d. Plan Issues: NONE
e. Prior Issues - Resolved: NONE
f. Prior Issues - Unresolved: NONE

3.3.3.3 Beaver County - Aliquippa Elementary School

a. Met: 1.5
b. Level 1 Findings: NONE
c. Level 2 Findings: NONE
d. Plan Issues: NONE
e. Prior Issues – Resolved: NONE
f. Prior Issues - Unresolved: NONE

3.3.3.4 Beaver County – Beaver Area School District

a. Met: 1.5
b. Level 1 Findings: NONE
c. Level 2 Findings: NONE
d. Plan Issues: NONE
e. Prior Issues – Resolved: NONE
f. Prior Issues - Unresolved: NONE

3.3.3.5 Beaver County – Beaver Area Middle School

a. Met: 1.5
b. Level 1 Findings: NONE
c. Level 2 Findings: NONE
d. Plan Issues: NONE
e. Prior Issues – Resolved: NONE
f. Prior Issues - Unresolved: NONE

3.3.3.6 Beaver County -Blackhawk School District

a. Met: 1.5
b. Level 1 Findings: NONE
c. Level 2 Findings: NONE
d. Plan Issues: NONE
e. Prior Issues – Resolved: NONE
f. Prior Issues - Unresolved: NONE

3.3.3.7 Beaver County – Blackhawk Intermediate School

a. Met: 1.5
b. Level 1 Findings: NONE
c. Level 2 Findings: NONE
d. Plan Issues: NONE
e. Prior Issues – Resolved: NONE
f. Prior Issues - Unresolved: NONE

3.3.3.8 Beaver County – Central Valley School District

a. Met: 1.5
b. Level 1 Findings: NONE
c. Level 2 Findings: NONE
d. Plan Issues: NONE
e. Prior Issues – Resolved: NONE
f. Prior Issues - Unresolved: NONE

3.3.3.9 Beaver County – Center Grange Primary School

a. Met: 1.5
b. Level 1 Findings: NONE
c. Level 2 Findings: NONE
d. Plan Issues: NONE
e. Prior Issues – Resolved: NONE
f. Prior Issues - Unresolved: NONE

3.3.3.10 Beaver County – Hopewell Area School District

a. Met: 1.5
b. Level 1 Findings: NONE
c. Level 2 Findings: NONE
d. Plan Issues: NONE
e. Prior Issues – Resolved: NONE
f. Prior Issues - Unresolved: NONE

3.3.3.11 Beaver County -Margaret Ross Elementary School

a. Met: 1.5
b. Level 1 Findings: NONE
c. Level 2 Findings: NONE
d. Plan Issues: NONE
e. Prior Issues – Resolved: NONE
f. Prior Issues - Unresolved: NONE

3.3.3.12 Beaver County - Midland Borough School District

a. Met: 1.5
b. Level 1 Findings: NONE
c. Level 2 Findings: NONE
d. Plan Issues: NONE
e. Prior Issues – Resolved: NONE
f. Prior Issues - Unresolved: NONE

3.3.3.13 Beaver County – Lincoln Park Performing Arts Charter School

a. Met: 1.5
b. Level 1 Findings: NONE
c. Level 2 Findings: NONE
d. Plan Issues: NONE
e. Prior Issues – Resolved: NONE
f. Prior Issues - Unresolved: NONE

3.3.3.14 Beaver County South Side Area School District

a. Met: 1.5

b. Level 1 Findings: NONE
c. Level 2 Findings: NONE
d. Plan Issues: NONE
e. Prior Issues – Resolved: NONE
f. Prior Issues - Unresolved: NONE

3.3.3.15 Beaver County - South Side High School

a. Met: 1.5
b. Level 1 Findings: NONE
c. Level 2 Findings: NONE
d. Plan Issues: NONE
e. Prior Issues – Resolved: NONE
f. Prior Issues - Unresolved: NONE

3.3.3.16 Beaver County – Western Beaver County School District

a. Met: 1.5
b. Level 1 Findings: NONE
c. Level 2 Findings: NONE
d. Plan Issues: NONE
e. Prior Issues – Resolved: NONE
f. Prior Issues - Unresolved: NONE

3.3.3.17 Beaver County - Western Beaver Junior/Senior High School

a. Met: 1.5
b. Level 1 Findings: NONE
c. Level 2 Findings: NONE
d. Plan Issues: NONE
e. Prior Issues – Resolved: NONE
f. Prior Issues - Unresolved: NONE

3.3.4 Support Jurisdictions

In summary, the status of DHS/FEMA capability targets for the support jurisdictions are as follows:

3.3.4.1 Allegheny County Emergency Operations Center

a. Met: 1.1, 1.2,2.1, 3.1, 3.3
b. Level 1 Findings: NONE
c. Level 2 Findings: NONE
d. Plan Issues: ONE
e. Prior Issues – Resolved: NONE
f. Prior Issues - Unresolved: NONE

3.3.4.2 Allegheny County Reception Center- South Park Museum Building

a. Met: 1.1, 1.2, 2.2, 3.1, 5.1
b. Level 1 Findings: NONE
c. Level 2 Findings: NONE
d. Plan Issues: NONE
e. Prior Issues – Resolved: NONE
f. Prior Issues - Unresolved: NONE

3.3.4.3 Allegheny County Evacuee Monitoring-Decontamination Station-South Park Museum Building

a. Met: 1.1, 1.2, 2.2, 3.1, 5.1
b. Level 1 Findings: NONE
c. Level 2 Findings: NONE
d. Plan Issues: NONE
e. Prior Issues – Resolved: NONE
f. Prior Issues - Unresolved: NONE

3.3.4.4 Allegheny County Mass Care Center

a. Met: 1.1, 1.2, 3.1, 5.1
b. Level 1 Findings: NONE
c. Level 2 Findings: NONE
d. Plan Issues: NONE
e. Prior Issues – Resolved: NONE
f. Prior Issues - Unresolved: NONE

3.3.4.5 Butler County Emergency Operations Center

a. Met: 1.1, 1.2, 3.1, 3.3
b. Level 1 Findings: NONE
c. Level 2 Findings: NONE
d. Plan Issues: NONE
e. Prior Issues – Resolved: NONE
f. Prior Issues - Unresolved: NONE

3.3.4.6 Butler County Reception Center- Slippery Rock High School

a. Met: 1.1, 1.2, 2.2, 3.1, 5.1
b. Level 1 Findings: NONE
c. Level 2 Findings: NONE
d. Plan Issues: NONE
e. Prior Issues – Resolved: NONE
f. Prior Issues - Unresolved: NONE

3.3.4.7 Butler County Evacuee Monitoring-Decontamination Station-Slippery Rock High School

a. Met: 1.1, 1.2, 2.2, 3.1, 5.1
b. Level 1 Findings: NONE
c. Level 2 Findings: NONE
d. Plan Issues: NONE
e. Prior Issues – Resolved: NONE
f. Prior Issues - Unresolved: NONE

3.3.4.8 Butler County Mass Care Center-Slippery Rock High School

a. Met: 1.1, 1.2, 3.1, 5.1
b. Level 1 Findings: NONE
c. Level 2 Findings: NONE
d. Plan Issues: NONE
e. Prior Issues – Resolved: NONE

f. Prior Issues - Unresolved: NONE

3.3.4.9 Lawrence County Emergency Operations Center

a. Met: 1.1, 1.2, 3.1, 3.3
b. Level 1 Findings: NONE
c. Level 2 Findings: NONE
d. Plan Issues: NONE
e. Prior Issues – Resolved: NONE
f. Prior Issues - Unresolved: NONE

3.3.4.10 Lawrence County Reception Center-Mohawk Area High School

a. Met: 1.1, 1.2, 2.2, 3.1, 5.1
b. Level 1 Findings: NONE
c. Level 2 Findings: NONE
d. Plan Issues: NONE
e. Prior Issues – Resolved: NONE
f. Prior Issues - Unresolved: NONE

3.3.4.11 Lawrence County Reception Center-Mohawk Area High School

a. Met: 1.1, 1.2, 2.2, 3.1, 5.1
b. Level 1 Findings: NONE
c. Level 2 Findings: NONE
d. Plan Issues: NONE
e. Prior Issues – Resolved: NONE
f. Prior Issues - Unresolved: NONE

3.3.4.12 Lawrence County Mass Care Center-Mohawk Area High School

a. Met: 1.1, 1.2, 3.1, 5.1
b. Level 1 Findings: NONE
c. Level 2 Findings: NONE
d. Plan Issues: NONE
e. Prior Issues – Resolved: NONE
f. Prior Issues - Unresolved: NONE

3.3.4.13 Washington County Emergency Operations Center

a. Met: 1.1, 1.2, 3.1, 3.3
b. Level 1 Findings: NONE
c. Level 2 Findings: NONE
d. Plan Issues: NONE
e. Prior Issues – Resolved: NONE
f. Prior Issues - Unresolved: NONE

3.3.4.14 Washington County Reception Center-Washington County Fairgrounds

a. Met: 1.1, 1.2, 2.2, 3.1, 5.1
b. Level 1 Findings: NONE
c. Level 2 Findings: NONE
d. Plan Issues: ONE
e. Prior Issues - Resolved: NONE
f. Prior Issues - Unresolved: NONE

3.3.4.15 Washington County Evacuee Monitoring-Decontamination Station-Trinity High School

a. Met: 1.2, 2.2
b. Level 1 Findings: NONE
c. Level 2 Findings: ONE

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CAPABILITY TARGET 5.1: Monitoring, Decontamination, Sheltering, and Registration of Evacuees

CONDITIONS: Staff at the Washington County Monitoring and Decontamination Station at Trinity High School failed to complete all the operational checkout steps for the Ludlum 52-1 portal monitor by not ensuring an appropriate detector response at foot level. After monitoring a contaminated individual, staff wiped down the portal monitor but did not survey the cloth to determine if the portal monitor itself required a survey for contamination as required by procedure. The staff also failed to consistently ensure surveys with the Ludlum 2241-3 handheld survey meters were performed at an appropriate rate and proximity to the surfaces being monitored.

POSSIBLE CAUSES: Although previously trained on the procedures, staff did not refer to their procedures while they performed their actions. It appeared that staff were relying on their memory of required actions from their training.

REFERENCES: NUREG-0654/FEMA-REP-1, Rev. 2 (J.11.d, J.13, K.4, and O.1)
• Washington County Monitoring and Decontamination Center Procedure

EFFECTS: An inoperable portal monitor could be placed in service which would be unable to detect contaminated individuals. A contaminated portal monitor could spread contamination to other individuals as they passed through the portal. If not performed correctly, secondary monitoring of contaminated evacuees and monitoring of potentially contaminated vehicles may fail to detect all areas requiring decontamination prior to release. Undetected contamination could remain causing unnecessary exposure to contaminated individuals and the uncontrolled spread of contamination to other areas.

CORRECTIVE ACTION/Resolved: Redemonstrations were performed after staff were provided corrective training for the portal monitor checkout and operation, monitoring of individuals, and monitoring of vehicles. All the redemonstrations were performed effectively.

d. Plan Issues: NONE
e. Prior Issues – Resolved: NONE
f. Prior Issues - Unresolved: NONE

3.3.4.16 Washington County Mass Care Center-Trinity High School

a. Met: 1.1, 1.2, 3.1, 5.1
b. Level 1 Findings: NONE
c. Level 2 Findings: NONE
d. Plan Issues: NONE
e. Prior Issues – Resolved: NONE
f. Prior Issues - Unresolved: NONE

SECTION 4: DEMONSTRATED STRENGTHS

3.3.1 State Jurisdictions

3.3.1.1.4 Joint Public Information Center

The VISTRA Corp. staff utilized summer interns to fill the role of mock media during the two press briefings. This not only provided an opportunity for the interns to be involved in the exercise process but also provided more realism to the media briefings.

3.3.1.1.5 Pennsylvania State Field Monitoring Management

Communicators stayed vigilant and professional to deliver important messages to field teams while working malfunctioning radios, resulting in no loss of messaging or communications.

3.3.2 Pennsylvania Risk Jurisdictions

3.3.2.1 Beaver County Emergency Operations Center

The Beaver County EOC communications team processed municipal requests for support with accuracy, efficiency, and timeliness. Requests for support from Beaver County were received by phone calls, PEMARS radio and RACES/REACTS radio communications. The predominant requests were for access and functional needs transportation including wheelchair buses and vans. In each case, the communications team ensured that the requests were clear and actionable. They also ensured that the responses to the community were clearly written, in plain English, so that the municipalities could easily track the fulfillment of support needs.

The designated Radiological Officer for the Pennsylvania State Police provided a radiological briefing that went beyond the typically required elements. This briefing went into depth about duties at Traffic and Access Control Points, issued dosimetry, KI, PPE, respiratory protections, and actions to be taken during an ordered evacuation.

At 2016, the exercise controller delivered a traffic impediment inject to the Emergency Management Director. The EMD read the inject and directed the EOC Manager to address the situation. The EOC Manager proceeded to the EOC floor and assembled an ad hoc team that included the Pennsylvania State Police, Beaver County Sheriff & Public Works, Penn DOT, and the Public Information Officer. This team proceeded to a wall mounted map of the county, quickly devised an alternate route around the impediment and provided the information to the PIO. The PIO put together a news release that was then approved by the EMD. This was completed at 2025 meaning this entire process was completed in only 9 minutes.

3.3.2.5 Beaver Borough/Bridgewater Borough/Vanport Township Emergency Operations Center

The EMC started a helpful conversation about how the traffic would be considerably heavier than expected. This was going to occur because of a combination of the closing of the Rochester-Monaca Bridge and the location of the impediment. The EMC directed the communicator to notify the TACP staff to be aware of this situation and to be prepared.

3.3.2.7 Chippewa Township/Ohioville Borough/Glasgow Borough/South Beaver Township/Patterson Heights Borough/Patterson Township Emergency Operations Center

During the exercise, the traffic impediment consisted of a landslide on Rt 51.

This had just happened earlier in the year at that location. This group in the EOC had already dealt with the Pennsylvania Department of Transportation in getting it removed.
The staff, being from this area, were already familiar with the only possible routes to divert traffic. The decision on where to re-route traffic was obvious to the EOC staff before Beaver County EOC made the decision.

3.3.2.11 Industry Borough/Midland Borough Emergency Operations Center

At 1817, during the BVPS Exercise the Industry EMC called (simulated) “The Willows” Event Center, Restaurant and Hotel to inform them of the SAE at BVPS. The EMC knew the Willows had a large event in progress and advised the manager that the event may need to be cancelled and attendees sent home. There was no mention of this facility in the Industry plans, but the EMC’s knowledge of his community prompted him to take this action.

3.3.2.12 Monaca Borough/Center Township Emergency Operations Center

The combined Townships for Monaca and Center maintained an EOC ready to go with all applicable plans/procedures, computers, signage, and associated materials in a room suitable to support emergency operations without the need to set up the facility. The Monaca and Center volunteer personnel were very enthusiastic and eager to provide the human resources necessary to adequately address the EOCs needs and required township support.

3.3.4 Support County

3.3.4.1 Allegheny County Emergency Operations Center

Allegheny County Emergency Management EOC Staff and participating agencies are commended for being able to handle a 3-alarm home explosion/fire; two SWAT operations, and a large residential fire before receiving notice to report to the EOC for this Beaver Valley Power Station declared emergency. All EOC operations were well controlled with demonstrated interaction of the agencies and Emergency Management leaders as the radiological emergency progressed.

3.3.4.13 Washington County Emergency Operations Center

1. The Washington County EOC Public Information Officer observed that the press release templates were not numbered, that the required stay-tuned messaging at the bottom of each template was vague, and that it did not include adequate references to public emergency information sources. During the demonstration, the PIO updated the templates to include numbering and emergency information sources and the distribution list to include social media platforms.
2. Despite being relatively new to the position, the Washington County Director of Public Safety demonstrated effective leadership and control of the EOC. The EOC staff briefings were conducted frequently, especially following each conference line call, and were led by the Director in a procedural format. Each briefing concluded with a round-robin query of each ESF position for actions and unmet needs, showcasing the Director's thorough understanding of the EOC's operations.

3. The R.A.C.E.S. team of two, operating as net control for the exercise, was knowledgeable of EOC operations and very effective in receiving and communicating emergency information acquired through listening to the conference line and the radio network. Net communications were logged and frequently presented to the EOC command team, allowing a broader picture of events.

SECTION 5: CONCLUSION

The Commonwealth of Pennsylvania, local jurisdictions, except where noted in this report, demonstrated knowledge of their Radiological Emergency Response Plans (RERP) and procedures were adequately implemented during the Beaver Valley Power Station Plume Exercise evaluated on June 11, 2024, and the Out-of-Sequence Demonstrations conducted May 14 and 16, 2024.

FEMA assesses offsite planning and preparedness for communities within the plume and/or ingestion exposure pathway EPZs of commercial NPPs through an established set of objectives and capability targets that reflect the intent of the planning standards of 44 CFR 350 and the evaluation criteria of NUREG-0654/FEMA-REP-1, Rev 2, December 2019. Thus, FEMA considers these objectives/capability targets to be the benchmarks for FEMA's validation of reasonable assurance.

Each of these objectives/capability targets apply to all aspects of FEMA's assessment and are reported out in terms of core capabilities in the Biennial Preparedness Report. There are five overarching objectives, each of which have a unique set of capability targets that support the accomplishment of the objective. The capability targets are associated with one or more core capabilities, as agreed to by the OROs and RAC Chairs. This assessment strategy supports FEMA's regulatory responsibilities and successfully aligns REP evaluation methodology with the doctrine of the National Preparedness System(NPS).

Federal Emergency Management Agency (FEMA) evaluators assessed total of 294 (PA & WV) Capability Targets in five Objectives:

- Objective 1: Emergency Operations Management
- Objective 2: Exposure Control
- Objective 3: Alert and Notification
- Objective 4: Detect, Measure, Sample, Analyze, and Assess
- Objective 5: Operate

The evaluation of this exercise determined that there were no Level 1 Findings, one Level 2 Finding, and two Plan Issues. The Level 2 Finding was re-demonstrated during the exercise and closed. One of the Plan Issues was closed prior to publishing of this report after FEMA received revised procedures and determined that the revisions were adequate. One Plan Issue, assessed to the Pennsylvania Emergency Management Agency (PEMA) remains open.

Based on the results of the exercise and a review of the offsite radiological emergency response plans and procedures submitted, FEMA Region 3 has determined they are adequate (meet the planning and preparedness standards of NUREG-0654/FEMA-REP-1, Revision 2, December 2019, as referenced in 44 CFR 350.5) and there is reasonable assurance they can be implemented, as demonstrated during this exercise.

BVPS APPENDIX A – EXERCISE TIMELINES

Emergency Classification Level or Event	Time Utility Declared	Commonwealth of Pennsylvania	
		PA CRCC	PA BRP Accident Assessment Center
Unusual Event	N/A	N/A	N/A
Alert	1622	1642	1642
Site Area Emergency	1754	1814	1814
General Emergency	1930	1942	1942
Simulated Radiation Release Started	1930	1942	1945
Simulated Radiation Release Ended	N/A	N/A	N/A
Facility Declared Operational		1807	1810
Governor's Declaration of State of Emergency		1914	1814
Declaration of Local Emergency		-	-
Notice of a Hostile Action Event		-	-
Precautionary Actions		1812	1812
Law Enforcement Actions (Shelter in-place)		-	-
Close Parks		-	-
Restrict Water Traffic		1812	-
Restrict Rail Traffic		1812	-
Restrict Airspace		1812	-
Shelter Livestock / Stored Feed & Water		1812	-
School Activities Canceled		1812	-
Relocate Risk School		-	-
1st PAD Decision (0-2 miles Restricted Area/Stay Indoors)		1818	1951
1st Siren Activation		1828	1828
1st EAS		1831	1831
2nd PAD Decision (0-10 miles all zones Shelter in Place)		2005	-
2nd Siren Activation		2015	2015
2nd EAS		2018	2018
3rd PAD Decision (0-10 miles evac all zones and ingest KI)		-	-
3rd Siren Activation		N/A	N/A
3rd EAS		N/A	N/A
Notification to Shelter Message is:		-	-
Notification to Evacuate Message is: 10 mi/360 degrees		2005	-
KI Administration Decision: EWs advised to take KI		1951	1951
General Public/Institutionalized advised to take KI		1951	1951
Exercise Terminated		2112	2128

Emergency Classification Level or Event	Time Utility Declared	Commonwealth of Pennsylvania			
		JPIC	Beaver County EOC	Aliquippa	Beaver Borough/ Bridgewater / Vanport
Unusual Event	N/A	N/A	N/A	N/A	N/A
Alert	1622	1645	1630	1636	1634
Site Area Emergency	1754	1808	1801	1805	1805
General Emergency	1930	1933	1935	1939	1939
Simulated Radiation Release Started	1930	1933	1930	1930	1939
Simulated Radiation Release Ended	N/A	N/A	N/A	N/A	N/A
Facility Declared Operational		1745	1643	1643	1644
Governor's Declaration of State of Emergency		1914	1757	1757	
Declaration of Local Emergency		-	1754	1754	1809
Notice of a Hostile Action Event		-	-	-	-
Precautionary Actions		-	1821	1821	-
Law Enforcement Actions (Shelter in-place)		-	-	-	-
Close Parks		-	1810	1810	-
Restrict Water Traffic		1840	1821	1821	-
Restrict Rail Traffic		1840	1821	1821	-
Restrict Airspace		1840	1821	1821	-
Shelter Livestock / Stored Feed & Water		1840	1821	1821	1834
School Activities Canceled		1840	1821	1821	1834
Relocate Risk School		1840	1821	1821	-
1st PAD Decision (0-2 miles Restricted Area/Stay Indoors)		-	1821	1821	1821
1st Siren Activation		-	1828	1828	2828
1st EAS		-	1831	1831	1831
2nd PAD Decision (0-10 miles all zones Shelter in Place)		-	2005	2005	2010
2nd Siren Activation		-	2015	2015	2015
2nd EAS		-	2018	2018	2018
3rd PAD Decision (0-10 miles evac all zones and ingest KI)		-	-	-	-
3rd Siren Activation		N/A	N/A	N/A	N/A
3rd EAS		N/A	N/A	N/A	N/A
Notification to Shelter Message is:		1959	-	-	-
Notification to Evacuate Message is: 10 mi/360 degrees		1959	2005	2005	2010
KI Administration Decision: EWs advised to take KI		1959	1955	1955	2010
General Public/Institutionalized advised to take KI		1959	1955	1955	2010
Exercise Terminated		2100	2100	2100	2054

Emergency Classification Level or Event	Time Utility Declared	Commonwealth of Pennsylvania			
		Brighton Township	Chippewa Twp. Fire Dept	Patterson Heights	Fallston Borough
Unusual Event	N/A	N/A	N/A	N/A	N/A
Alert	1622	1635	1701	1701	1637
Site Area Emergency	1754	1805	1805	1805	1805
General Emergency	1930	1939	1939	1939	1939
Simulated Radiation Release Started	1930	1939	1939	1939	1939
Simulated Radiation Release Ended	N/A	N/A	N/A	N/A	N/A
Facility Declared Operational		1705	1655	1655	1648
Governor's Declaration of State of Emergency		-	-	-	2015
Declaration of Local Emergency		1809	1817	1817	1835
Notice of a Hostile Action Event		-	-	-	-
Precautionary Actions		-	-	-	-
Law Enforcement Actions (Shelter in-place)		-	-	-	-
Close Parks		-	1823	1823	1837
Restrict Water Traffic		-	-	-	-
Restrict Rail Traffic		-	-	-	-
Restrict Airspace		-	-	-	-
Shelter Livestock / Stored Feed & Water		1834	1837	1837	1823
School Activities Canceled		-	1837	1837	1823
Relocate Risk School		-	-	-	-
1st PAD Decision (0-2 miles Restricted Area/Stay Indoors)		-	-	-	1821
1st Siren Activation		1834	1828	1828	1828
1st EAS		1832	1831	1831	1831
2nd PAD Decision (0-10 miles all zones Shelter in Place)		-	-	-	2020
2nd Siren Activation		2015	2015	2015	2015
2nd EAS		-	2018	2018	2018
3rd PAD Decision (0-10 miles evac all zones and ingest KI)		-	-	-	-
3rd Siren Activation		N/A	N/A	N/A	N/A
3rd EAS		N/A	N/A	N/A	N/A
Notification to Shelter Message is:		-	2003	2003	1958
Notification to Evacuate Message is: 10 mi/360 degrees		2010	2010	2010	2015
KI Administration Decision: EWs advised to take KI		2010	2003	2003	2011
General Public/Institutionalized advised to take KI		2010	2010	2010	2015
Exercise Terminated		2055	2055	2055	2054

Emergency Classification Level or Event	Time Utility Declared	Commonwealth of Pennsylvania			
		Frankfort Springs	Hopewell Township	Industry/Midland	Monaca/Center Township
Unusual Event	N/A	N/A	N/A	N/A	N/A
Alert	1622	1637	1635	1635	1637
Site Area Emergency	1754	1805	1711	1805	1805
General Emergency	1930	1939	1808	1939	1939
Simulated Radiation Release Started	1930	1939	1940	1939	1939
Simulated Radiation Release Ended	N/A	N/A	N/A	N/A	N/A
Facility Declared Operational		1648	1648	1700	1648
Governor's Declaration of State of Emergency		2015	2015	2030	1914
Declaration of Local Emergency		1835	1835	1809	1811
Notice of a Hostile Action Event		-	-	-	-
Precautionary Actions		-	-	-	-
Law Enforcement Actions (Shelter in-place)		-	-	-	-
Close Parks		1837	-	1817	-
Restrict Water Traffic		-	-	1928	-
Restrict Rail Traffic		-	-	1928	-
Restrict Airspace		-	-	1928	-
Shelter Livestock / Stored Feed & Water		1823	1834	1831	1834
School Activities Canceled		1823	1834	1831	1834
Relocate Risk School		1823	-	-	-
1st PAD Decision (0-2 miles Restricted Area/Stay Indoors)		N/A	-	-	1822
1st Siren Activation		N/A	1828	1828	1828
1st EAS		N/A	1828	1831	1831
2nd PAD Decision (0-10 miles all zones Shelter in Place)		1821	-	1831	2010
2nd Siren Activation		1828	2015	2015	2015
2nd EAS		1831	2018	2018	2018
3rd PAD Decision (0-10 miles evac all zones and ingest KI)		2020	-	-	-
3rd Siren Activation		N/A	N/A	N/A	N/A
3rd EAS		N/A	N/A	N/A	N/A
Notification to Shelter Message is:		N/A	-	-	-
Notification to Evacuate Message is: 10 mi/360 degrees		N/A	2011	2010	2010
KI Administration Decision: EWs advised to take KI		N/A	2011	2010	2010
General Public/Institutionalized advised to take KI		2018	2010	2010	2010
Exercise Terminated		2055	2055	2054	2054

Emergency Classification Level or Event	Time Utility Declared	Commonwealth of Pennsylvania			
		Raccoon Township	South Heights Borough	Allegheny County EOC	Butler County EOC
Unusual Event	N/A	N/A	N/A	N/A	N/A
Alert	1622	1638	1637	1714	1706
Site Area Emergency	1754	1805	1805	1815	1815
General Emergency	1930	1940	1940	1952	1935
Simulated Radiation Release Started	1930	1940	1940	1952	1948
Simulated Radiation Release Ended	N/A	N/A	N/A	N/A	N/A
Facility Declared Operational		1713	1713	1721	1820
Governor's Declaration of State of Emergency		2010	2010	1932	1938
Declaration of Local Emergency		1810	1810	2008	1954
Notice of a Hostile Action Event		-	-	-	-
Precautionary Actions		-	-	-	-
Law Enforcement Actions (Shelter in-place)		-	-	1815	-
Close Parks		-	-	1815	-
Restrict Water Traffic		-	-	1815	-
Restrict Rail Traffic		-	-	1815	-
Restrict Airspace		-	1834	1815	-
Shelter Livestock / Stored Feed & Water		1835	1834	1815	-
School Activities Canceled		1835	-	1815	-
Relocate Risk School		-	-	1815	-
1st PAD Decision (0-2 miles Restricted Area/Stay Indoors)		1821	1821	1818	1818
1st Siren Activation		1828	1828	1828	1828
1st EAS		1831	1831	1831	1831
2nd PAD Decision (0-10 miles all zones Shelter in Place)		2015	2010	2007	1950
2nd Siren Activation		2015	2015	2015	2015
2nd EAS		2018	2018	2018	2018
3rd PAD Decision (0-10 miles evac all zones and ingest KI)		-	-	-	-
3rd Siren Activation		N/A	N/A	N/A	N/A
3rd EAS		N/A	N/A	N/A	N/A
Notification to Shelter Message is:		-	-	-	-
Notification to Evacuate Message is: 10 mi/360 degrees		2010	2010	-	1948
KI Administration Decision: EWs advised to take KI		2010	2010	1957	1948
General Public/Institutionalized advised to take KI		2010	-	1957	1948
Exercise Terminated		2054	2020	2100	2100

Emergency Classification Level or Event	Time Utility Declared	Commonwealth of Pennsylvania	
		Lawrence County EOC	Washington County EOC
Unusual Event	N/A	N/A	N/A
Alert	1622	1715	1646
Site Area Emergency	1754	1816	1818
General Emergency	1930	1950	1949
Simulated Radiation Release Started	1930	1950	1949
Simulated Radiation Release Ended	N/A	N/A	N/A
Facility Declared Operational		1748	1748
Governor's Declaration of State of Emergency		1938	1938
Declaration of Local Emergency		-	-
Notice of a Hostile Action Event		-	-
Precautionary Actions		-	-
Law Enforcement Actions (Shelter in-place)		-	-
Close Parks		-	-
Restrict Water Traffic		1821	1856
Restrict Rail Traffic		1821	1835
Restrict Airspace		1821	1849
Shelter Livestock / Stored Feed & Water		1821	1833
School Activities Canceled		1841	1840
Relocate Risk School		-	-
1st PAD Decision (0-2 miles Restricted Area/Stay Indoors)		1816	1820
1st Siren Activation		1828	1828
1st EAS		1831	1831
2nd PAD Decision (0-10 miles all zones Shelter in Place)		2001	2005
2nd Siren Activation		2015	2015
2nd EAS		2018	2018
3rd PAD Decision (0-10 miles evac all zones and ingest KI)		-	-
3rd Siren Activation		N/A	N/A
3rd EAS		N/A	N/A
Notification to Shelter Message is:		-	-
Notification to Evacuate Message is: 10 mi/360 degrees		-	1952
KI Administration Decision: EWs advised to take KI		1950	1952
General Public/Institutionalized advised to take KI		1950	1952
Exercise Terminated		2113	2100

APPENDIX B: EXERCISE EVALUATORS AND TEAM LEADERS

The following is the list of Evaluators and Team Leaders for the Beaver Valley Power Station Radiological Emergency Preparedness Plume Pathway Exercise evaluated on June 11, 2024, for Commonwealth of Pennsylvania, starting at 4:00 p.m. Out-of-Sequence demonstrations were evaluated on May 14 and 16, 2024. The following constitutes the managing staff for the Exercise Evaluation:

- Thomas Scardino, DHS/FEMA, Regional Assistance Committee (RAC) Chairman
- Tina Thomas, DHS/FEMA, Project Officer, and Site Specialist

Beaver Valley Power Station

LOCATION	TEAM LEADER	AGENCY
Commonwealth Response Coordination Center (CRCC); Commonwealth Joint Information Center at the CRCC; Joint Public Information Center (JPIC)	Alex Hazard	FEMA Region 3
Pennsylvania Accident Assessment Center (State EOC-BRP) Harrisburg; PA State Field Monitoring Team Management; PA State Field Monitoring Team A; PA State Field Monitoring Team B;	Micheal Howe	FEMA HQ
Beaver County Emergency Operations Center (EOC); State Traffic/ Access Control; Beaver County Hazmat Garage Equipment Inventory	Joseph Suders	Region 3
City of Aliquippa; Beaver Borough/Bridgewater/Vanport Township; Brighton Township; Chippewa/Ohioville/Glasgow/South Beaver/Patterson Heights/Patterson Township; Fallston Borough; Frankfort Springs/Hanover/ Independence Georgetown/ Greene/Hookstown; Hopewell Township; Industry/Midland; Monaca/Center Township; Potter/Raccoon Township/Shippingport Potter Twp; South Heights Borough	Daniel Rose	Region 3

Allegheny County EOC; Butler County EOC, Lawrence County EOC; Washington County EOC	Roy Smith	REP Support Team
LOCATION	**EVALUATOR**	**AGENCY**
Commonwealth Response Coordination Center (CRCC)	Alex Hazard	FEMA Region 3
Commonwealth Response Coordination Center (CRCC)	Dennis Cribben	FEMA Region 3
Accident Assessment Center (State EOC-BRP) Harrisburg	Micheal Howe	FEMA HQ
Accident Assessment Center (State EOC-BRP) Harrisburg	Reggie Rodgers	REP Support Team
Joint Public Information Center	Matt Welshans	FEMA HQ
PA State Field Monitoring Team Management	Janise Stoliarova	FEMA HQ
PA State Field Monitoring Team A (BRP)	Cheryl Weaver	REP Support Team
PA State Field Monitoring Team B (BRP)	Carol Shepard	REP Support Team
State Traffic/Access Control	Bill McDougall	REP Support Team
Beaver County Hazmat Garage Equipment Inventory	Bill McDougall	REP Support Team
Beaver County Emergency Operations Center (EOC)	Joseph Suders	FEMA Region 3
Beaver County EOC	Paul Anderson	REP Support Team
Beaver County EOC	Bill McDougall	REP Support Team
Beaver County Emergency Worker Monitor-Decontamination Station – Crescent Fire Department	Tom Essig	REP Support Team
Beaver County Emergency Worker Monitor-Decontamination Station – Crescent Fire Department	Tom Geer	REP Support Team
Beaver Valley Intermediate Unit (BVIU)	Tina Thomas	FEMA Region 3
Aliquippa School District	Alex Hazard	FEMA Region 3
Aliquippa Elementary School	Alex Hazard	FEMA Region 3
Beaver Area School District	Joseph Suders	FEMA Region 3

Beaver Area Middle School	Cheryl Weaver	REP Support Team
Blackhawk School District	Terry Blackman	REP Support Team
Blackhawk Intermediate School	Herb Masie	REP Support Team
Central Valley School District	Chris Nemcheck	FEMA Region 3
Center Grange Primary School	Roy Smith	REP Support Team
Hopewell School District	Tom Geer	REP Support Team
Margaret Ross Elementary School	Lee Torres	FEMA Region 3
Midland School District	Taylor Griffiths	FEMA Region 3
Lincoln Park Performing Arts Charter School	Paul Nied	REP Support Team
South Side Area School District	Zachary Corle	FEMA Region 3
South Side High School	Zachary Corle	FEMA Region 3
Western Beaver School District	Tom Essig	REP Support Team
Western Beaver Jr/Sr. High School	Kevin Leuer	REP Support Team
City of Aliquippa	Tom Morgan	FEMA Region 7
Beaver Borough/Bridgewater /Vanport Township	Micheal Burriss	REP Support Team
Brighton Township EOC	Ken Evans	REP Support Team
Chippewa/Ohioville/Glasgow/South Beaver/Patterson Heights/Patterson Township;	Roger Winkelmann	REP Support Team
Falls Borough	George LaBonte	FEMA Region 3
Frankfort Springs/Hanover/ Independence Georgetown/ Greene/Hookstown	Gary Goldberg	REP Support Team
Hopewell Township	Lynn Steffensen	REP Support Team
Industry/Midland	Don Carlton	REP Support Team
Monaca/Center Township	Richard Smith	REP Support Team
Potter/Raccoon Township/ Shippingport	Herb Massie	REP Support Team

South Heights Borough	Melody Geer	REP Support Team
Allegheny County EOC	Roy Smith	REP Support Team
Allegheny County – Reception Center -South Park Museum Building	Joseph Suders	FEMA Region 3
Allegheny County – Reception Center -South Park Museum Building	Herb Massie	REP Support Team
Allegheny County – Evacuee Monitor/Decontamination Station - South Park Museum Building	Paul Nied	REP Support Team
Allegheny County – Mass Care Center -South Park Museum Building	Roy Smith	REP Support Team
Butler County EOC	Alonzo McSwain	FEMA HQ
Butler County -Reception Center – Slippery Rock High School	Terry Blackman	REP Support Team
Butler County -Evacuee Monitor-Decontamination Station – Slippery Rock High School	Tom Essig	REP Support Team
Butler County -Mass Care Center – Slippery Rock High School	Kevin Leuer	REP Support Team
Lawrence County EOC	Kevin Reed	REP Support Team
Lawrence County -Reception Center – Mohawk Area High School	Terry Blackmon	REP Support Team
Lawrence County -Evacuee Monitor-Decontamination Station – Mohawk Area High School	Cheryl Weaver	REP Support Team
Lawrence County -Mass Care Center – Mohawk Area High School	Kevin Leuer	REP Support Team
Washington County EOC	Paul Nied	REP Support Team
Washington County -Reception Center – Washington County Fairgrounds	Herb Massie	REP Support Team
Lawrence County -Evacuee Monitor-Decontamination Station – Trinity High School	Tom Geer	REP Support Team
Lawrence County -Mass Care Center –Trinity High School	Roy Smith	REP Support Team
Beaver Valley Intermediate Unit (BVIU)	Tina Thomas	FEMA Region 3
Aliquippa School District	Alex Hazard	FEMA Region 3

Aliquippa Elementary School	Alex Hazard	FEMA Region 3
Beaver Area School District	Joseph Suders	FEMA Region 3
Beaver Area Middle School	Cheryl Weaver	REP Support Team
Blackhawk School District	Terry Blackman	REP Support Team
Blackhawk Intermediate School	Herb Masie	REP Support Team
Central Valley School District	Chris Nemcheck	FEMA Region 3
Center Grange Primary School	Roy Smith	REP Support Team
Hopewell School District	Tom Geer	REP Support Team
Margaret Ross Elementary School	Lee Torres	FEMA Region 3
Midland School District	Taylor Griffiths	FEMA Region 3
Lincoln Park Performing Arts Charter School	Paul Nied	REP Support Team
South Side Area School District	Zachary Corle	FEMA Region 3
South Side High School	Zachary Corle	FEMA Region 3
Western Beaver School District	Tom Essig	REP Support Team
Western Beaver Jr/Sr. High School	Kevin Leuer	REP Support Team

APPENDIX C: ACRONYMS AND ABBREVIATIONS

Acronym	Meaning
ACP	Access Control Point
ALC	Annual Letter of Certification
ANS	Alert and Notification System
ARC	American Red Cross
ARES	Amateur Radio Emergency Services
BRP	Bureau of Radiological Protection
BuRA	Back-up Route Alerting
CERT	Community Emergency Response Team
CFR	Code of Federal Regulations
CERC	Corporate Emergency Response Center
CNS	Commonwealth Notification System
CPM	Counts per Minute
CRCC	Commonwealth Response Coordination Center
DAD	Digital Alarming Dosimeter
DHS	Department of Homeland Security
DOT	Department of Transportation
EAL	Emergency Action Level
EAS	Emergency Alert System
ECL	Emergency Classification Level
EMC	Emergency Management Coordinator
EMD	Emergency Management Director
EMS	Emergency Medical Services
EOC	Emergency Operations Center
EOP	Extent of Play
EPT	Exercise Planning Team
EPZ	Emergency Planning Zone
ESF	Emergency Support Function
EW	Emergency Workers
EWMDS	Emergency Worker Mon/Decon Station
FD	Fire Department
FEMA	Federal Emergency Management Agency
FMT	Field Monitoring Team
FRMAC	Federal Radiological Monitoring Assessment Center
FPE	Full Participation Exercise
FST	Field Sampling Team
FTC	Field Team Coordinator
GE	General Emergency

GIS	Geographic Information Systems
HazMat	Hazardous Materials
IPAWS	Integrated Public Alert & Warning System
IPX	Ingestion Pathway Zone
JIC	Joint Information Center
KI	Potassium Iodide
LOA	Letter of Agreement
MCC	Mass Care Center
MOC	Media Operations Center
MOU	Memorandum of Understanding
MSEL	Master Scenario Events List
NPP	Nuclear Power Plant
NRC	Nuclear Regulatory Commission
OOS	Out of Sequence
ORH	Office of Radiological Health
ORO	Offsite Response Organization
OSD	Optically Stimulated Dosimeter
PAD	Protective Action Decision
PAG	Protective Action Guide
PAR	Protective Action Recommendation
PARA	Primary Area Route Alerting
BVPS	Beaver Valley Power Station
PDAFN	Persons with Disabilities/Access Functional Needs
PEMA	Pennsylvania Emergency Management Agency
PIO	Public Information Officer
PPE	Personal Protective Equipment
PRD	Permanent Record Dosimeter
RAC	Regional Assistance Committee
RACES	Radio Amateur Civil Emergency Services
RC	Reception Center
REA	Radiation Emergency Area
REPP	Radiological Emergency Preparedness Program
RERP	Radiological Emergency Response Plan
RO	Radiological Officer
SAC	Staging Area Coordinator
SAE	Site Area Emergency
SAV	Staff Assistance Visit
SEOC	State Emergency Operations Center
SEVAN	State Emergency Voice Activation Network
TCP	Traffic Control Point

TRNSDEP	Transportation Dependent
VHF	Very High Frequency
WEA	Wireless Emergency Alerts

APPENDIX D: EXTENT OF PLAY AGREEMENT

The 2024 Beaver Valley Power Station Plume Exercise Extent-of-Play (EOP) Agreement is a document created by the Commonwealth of Pennsylvania Emergency Management Agency that sets the parameters for exercise demonstration. The EOP agreement was signed by the FEMA Region 3 and Commonwealth of Pennsylvania Emergency Management Agency planning team members.

BEAVER VALLEY POWER STATION

2024 RADIOLOGICAL EMERGENCY PREPAREDNESS EXERCISE

EXTENT-OF-PLAY AGREEMENT

OBJECTIVE 1 – Emergency Operations Management

Capability Target 1.1: Mobilization *(Vice Sub-Element 1.a.1)*

Core Capability: Operational Coordination; Planning
Recommended Evaluation Frequencies: At every assessment activity
Recommended Assessment Activities: Exercise; Drill
Planning Reference: NUREG-0654/FEMA-REP-1, Rev. 2 (A.1, A.1.a, A.1.b, A.3, A.4, A.5, C.1, C.2, C.2.a, C.2.b, C.3, E.1, E.1.a, E.3, F.1.c, H.6, and O.1)

Intent: The capability to alert, notify, and mobilize OROs to staff facilities in support of emergency operations.

Demonstration and Evaluation Guidance:

1. Alert, notify, and mobilize key personnel, to include a 24-hour staffing roster, and activate facilities in a timely manner.
   - What time was staff notified? What time did they arrive at the facility?
   - Did the ORO demonstrate the activation of facilities for immediate use by mobilized personnel upon their arrival?
   - Was activation of facilities/locations completed in accordance with plans/procedures?
   - Were key emergency personnel contacted, alerted, and mobilized in a timely manner?
   - Did the ORO demonstrate the ability to staff and maintain 24-hour operations?
   - Were position staff trained and in place for facility activation?
2. Receive and verify notifications.
   - Who notified the ORO? Licensee or other?
   - For reverse notification, how was the licensee notified?
   - Was the notification/information verified? How?

- What was the initial ECL? Were changes to ECLs communicated in the same manner?

3. Identify and request additional resources, as needed.
   - Was the ability to identify and request additional resources demonstrated? If not, was the ability to identify compensatory measures demonstrated?
   - Were MOUs and LOAs available for review?
4. Determine a facility operational.
   - What time was the facility declared operational?
   - What criteria was used to determine if the facility was operational?
   - What was the time difference between notifications of personnel and when the facility was declared operational?

All activities must be based on the ORO's plans/procedures and completed as they would be in an actual emergency, unless noted above or otherwise specified in the Extent-of-Play Agreement.

State Negotiated Extent of Play:
• *Actual calls (or pager notifications) will be made to the municipal EOC personnel for the Plume Phase exercise per plans and procedures.* • *In all instances, the demonstration of a shift change is **NOT** required. Twenty-four hour staffing will be demonstrated by means of a roster or staffing chart.* • *All out-of-sequence players will be pre-positioned, and equipment will be demonstrated or shown to be inventoried (School District personnel, PSP TCP/ACP, Reception Centers, Emergency Worker Monitoring and Decontamination Stations Mass Care/Sheltering Centers and Monitoring and Decontamination Stations).* • *Individuals working in state facilities and county EOCs may be pre-positioned for the plume phase.* • *Other locations, including Municipal EOCs, will **NOT** pre-stage but will wait for notification of emergency before staffing their duty location.*

Capability Target 1.2: Direction and Control *(Vice Sub-Element 1.b.1, 1.c.1, 1.e.1)*

Core Capabilities: Operational Coordination; Environmental Response/Health and Safety; Public Information and Warning; Mass Care Services; Public Health, Healthcare, and Emergency Medical Services; Situational Assessment; Critical Transportation; Planning

Recommended Evaluation Frequencies: At every assessment activity
Recommended Assessment Activities: Exercise; Drill

Planning Reference: NUREG-0654/FEMA-REP-1, Rev. 2 (A.1, A.1.a, A.1.b, A.1.c, A.2, A.3, A.5, C.2, C.2.a, C.2.b, C.3, D.4, E.1, H.6, and O.1)

Intent: The capability to provide overall direction and control of response efforts, commensurate with the responsibilities of leadership, as detailed in plans/procedures.

Demonstration and Evaluation Guidance:

1. Support protective action decision-making.
   - Who, by title and position, was in charge?
   - Who was authorized to make any PADs prior to an official PAR from the licensee?
   - Did decision-makers obtain input from their support staff?
2. Conduct briefings in a timely manner.
   - Were briefings conducted in a timely manner?
   - What information was provided?
   - How frequently were briefings held?
   - Who gave the briefing?
3. Maintain situational awareness.
   - Did the ORO maintain situational awareness? How?
4. Coordinate response activities with other organizations.
   - Were response activities coordinated with other organizations? How?
5. Obtain resources to support emergency operations.
   - Were resources obtained to support emergency operations (e.g., through MOUs or other agreements)?

- Was just-in-time training provided, as necessary?

6. Provide and maintain adequate facilities and equipment to support the emergency response.
   - Were facilities and equipment adequate to support operations? How so?
   - Was the facility evacuated during the plume? What means of monitoring and decontamination were used?

All activities must be based on the ORO's plans/procedures and completed as they would be in an actual emergency, unless noted above or otherwise specified in the Extent-of-Play Agreement.

State Negotiated Extent of Play:
All facilities will be evaluated during this exercise to satisfy the eight-year cycle requirement. *In Pennsylvania, support counties do not have DRDs or KI, but those responsible for reception centers and/or monitoring and Decontamination Stations will have PRDs.* *Dosimetry and KI are not pre-distributed in Beaver County.* ***Evaluation of this sub-element will take place at the Beaver County Hazmat Garage out-of-sequence via interview on June 11, 2024, immediately following the PSP demonstration.*** *Dosimetry and KI will be verified using inventory sheets prior to the exercise by FEMA.* *Evaluation of dosimetry and KI quantities will be verified using inventory sheets. Dosimetry and KI will not be removed from storage locations and boxes/packages will not be opened. KI questions will be addressed through interviews with the county.* *Annual Direct Reading Dosimeter leakage testing verification and KI extension letters (as appropriate) will be available to the evaluator. FEMA acknowledges that the Pennsylvania stock of KI may be expired at the time of the exercise. The NRC has ordered replenishment of the KI stock that may arrive prior to or shortly after the exercise. Therefore, FEMA will accept that the Pennsylvania KI stock is adequate even if past the expiration date.* *All DRDs "read" in units of Roentgens. The commonwealth, counties and municipalities do not use direct reading dosimeters which "read" in units of milli-Roentgens.* *Radiological survey instruments are calibrated per manufacturer's recommendations.* *Reception Centers shall be evaluated on their ability to use maps or other documentation to direct evacuating persons to the correct Monitoring/Decontamination Stations and/or Mass Care Centers (as applicable). Maps will be available for viewing by evaluators. If Reception Centers are collocated with Monitoring/Decontamination Stations and Mass Care Centers the use of maps or documents to provide direction does not apply.* ***Personnel manning reception centers should receive a radiological briefing and receive category C dosimetry due to potential for radiological contamination.*** *Note: Bus drivers returning to the EPZ to fulfill relocation requirements will be equipped with Category A dosimetry and receive a radiological briefing.*

Capability Target 1.3: Protective Action Recommendations *(Vice Sub-Element 2.b.1; 3.e.1)*

Core Capabilities: Operational Coordination; Environmental Response/Health and Safety; Situational Assessment; Planning

Recommended Evaluation Frequencies: Biennially
Recommended Assessment Activities: Biennial exercise only

Planning Reference: NUREG-0654/FEMA-REP-1, Rev. 2 (D.4, J.7, J.8, J.8.b, J.9, and O.1)

Intent: The capability to use dose assessment and field data, compare this data to the PAGs, and choose among a range of protective actions those most appropriate in a given emergency.

Demonstration and Evaluation Guidance:

Plume

1. Select and implement pre-planned precautionary protective actions.
   - Who, by title/position and organization, made decisions to implement any preplanned precautionary protective actions outlined within plans/procedures?
   - What precautionary protective actions were taken? Why?
2. Utilize the methodology in plans/procedures to select among a range of protective actions most appropriate in a given emergency. This could also include the use of preplanned precautionary protective actions contained in plans/procedures.
   - Were differences in dose projection greater than a factor of ten discussed with the licensee? If so, were the differences resolved, and timely and appropriately incorporated into the PAR?
3. Develop PARs.
   - Who, by title/position and organization, developed each PAR?
   - What information (e.g., from the licensee, field monitoring data, release data, meteorological data, etc.) was used to develop each PAR?
   - Were PARs based on the ECL?
   - Were ETEs considered?
   - Were EPA and FDA PAGs considered when making PARs? Was any other criteria, guidance, and/or methodologies used?
   - Were recommendations for KI made and on what were they based?
   - What populations or groups were included in the KI PAR (e.g. general public, institutionalized)?
4. Transmit PARs in a timely manner.
   - Who, by title/position and organization, transmitted each PAR to the decision-makers?
   - Who was the PAR provided to?

Post Plume

1. Assess radiological consequences and provide appropriate PARs for the ingestion exposure pathway.
   - Who had the authority to make PARs for the ingestion pathway?
   - Were precautionary actions (e.g., placing animals on stored feed and water) were considered to protect the ingestion pathway?
   - Did the ORO coordinate on PARs developed for ingestion pathway?

- What boundaries were recommended for the restricted area? Did this include a recommendation for a buffer zone?
- Were projected doses considered in developing recommendations for relocation? Were they compared to the EPA PAGs?
- Were FDA PAGs (DILs as a surrogate) considered when recommending holds or embargos?
- Were recommendations made for exposure and dose limitations for those temporarily reentering the restricted area?
- Were recommendations developed to assist decision-makers on relaxing protective actions to allow for return?

All activities must be based on the ORO's plans/procedures and completed as they would be in an actual emergency, unless noted above or otherwise specified in the Extent-of-Play Agreement.

State Negotiated Extent of Play:
If the scenario has no radiological release, or potential of a radiological release, the decision-making process used to make protective action decisions (PADs) can be addressed through an interview at the CRCC if required.

Capability Target 1.4: Protective Action Decisions for the Plume Phase *(Vice Sub-Element 2.b.2; 2.c.1)*

Core Capabilities: Operational Coordination; Environmental Response/Health and Safety; Situational Assessment; Critical Transportation; Planning

Recommended Evaluation Frequencies: Biennially
Recommended Assessment Activities: Biennial exercise only

Planning Reference: NUREG-0654/FEMA-REP-1, Rev. 2 (D.1.b, D.4, J.6, J.7, J.8, J.8.b, J.10, J.10.a, J.10.b, J.11.c-g, and O.1)

Intent: The capability to utilize appropriate factors and necessary coordination in the decision-making process used to make PADs for the public.

Demonstration and Evaluation Guidance:

1. Coordinate and make PADs for members of the general public.
   - Who, by title and organization, made PADs?
   - Did PADs need to be coordinated with other jurisdictions?
   - Did all appropriate OROs communicate and coordinate precautionary protective actions and/or PADs amongst each other? Who was involved?
   - What applicable Federal guidelines were utilized when making PADs?
   - Were precautionary protective actions and/or initial PADs made in a timely manner based on the scenario?
   - What were PADs based on (e.g., ETEs, predetermined actions, information/PARs from the licensee, protective action strategy, ORO assessment of plant status, weather conditions, and/or radiological releases, other incident information, input from appropriate ORO authorities, overall risk assessment of evacuation vs. shelter-in-place, considerations for those with access and functional needs, etc.)?

- Are any supplemental resources necessary to implement a PAD (e.g., law enforcement, fire service, HAZMAT, and medical resources)? If so, who can request Federal support?
- Were PADs coordinated with the ICP, if applicable?
- Were all decisions communicated with all affected locations in a timely manner?

2. Coordinate and make PADs for those with access and functional needs.
   - What factors were considered for PADs made for those with access and functional needs?
   - Were there specific PADs for those with access and functional needs?
   - What was the basis of the PADs for those with access and functional needs?
3. Coordinate and make PADs for students at schools.
   - How did the ORO alert and notify all school systems/districts of emergency conditions?
   - What were protective actions for schools based on?
   - What PADs were made?
   - How were the PADs coordinated?
4. Coordinate and make subsequent or alternate PADs.
   - Were subsequent or alternate PADs made? What were they? On what were they based (e.g., changing metrological conditions, field data, updated dose projections, changes in plant conditions)?
   - Was the process for making PADs during a rapidly escalating situation different?
   - What were subsequent/alternate PADs based on?
5. Coordinate and make decisions on the administration of KI (where applicable) for the public and institutionalized members of the population.
   - What was the KI decision-making process?
   - Did the decision require coordination with assessment and decision-making staff? Was it based on projected thyroid dose compared with the established PAGs?
   - Was there coordination among OROs involved in the decision-making process for KI administration?
   - Was the message content clear on KI instructions?
   - How was KI information provided to those who needed to take it?

All activities must be based on the ORO's plans/procedures and completed as they would be in an actual emergency, unless noted above or otherwise specified in the Extent-of-Play Agreement.

State Negotiated Extent of Play:
If the scenario has no radiological release, or potential of a radiological release, the decision-making process used to make PADs can be addressed through an interview at any time during the exercise at the CRCC if required.

Capability Target 1.5: Protective Action Decision Implementation for the Plume Phase *(Vice Sub-Element 3.b.1; 3.c.1; 3.c.2)*

Core Capabilities: Operational Coordination; Public Information and Warning; Environmental Response/Health and Safety; Critical Transportation; Health and Social Services; Housing; Natural and Cultural Resources; Planning

Recommended Evaluation Frequencies: Biennially
Recommended Assessment Activities: Exercise; Drill

Planning Reference: NUREG-0654/FEMA-REP-1, Rev. 2 (A.4, C.2.a, G.1, J.11, J.11.a, J.11.b, J.11.c, J.11.e, J.11.g, and O.1)

Intent: The capability to implement precautionary protective action and/or PADs, including evacuation and/or sheltering, for all populations within the plume and ingestion exposure pathway EPZs. The populations include those with access and functional needs, students, and institutionalized individuals.

Demonstration and Evaluation Guidance:

1. Implement PADs, ensuring communication and coordination with all appropriate jurisdictions.
   - Were resources identified and utilized effectively?
   - Did OROs communicate and work together in an effective manner?
   - What type of coordination occurred on the implementation of protective actions?
   - Was the public kept informed and was the information provided relevant?
   - Were PADs implemented as directed?
   - What types of populations are in the plume exposure pathway EPZ (e.g., institutionalized, access and functional needs, non-English speaking, etc.)? Who is responsible for notifying each, and at what point during the incident?
   - Were there any gaps in resources identified? If so, how were they addressed?
2. Assist those with access and functional needs during the implementation of PADs.
   - What time was the order received for those with access and functional needs?
   - Were the facility/facilities receiving those with access and functional needs listed in the plans?
   - How were individuals with services animals addressed
3. Communicate, coordinate, and implement protective actions for schools.
   - What school districts are located within the plume exposure pathway EPZ?
   - Who notifies school districts? How?
   - What was the protective action that the school took?
   - With regard to processing students, faculty, and staff, what sort of PADs were made?
   - At which ECL were the school districts notified?
   - If students were moved, which reclamation centers were they sent to? Which is the host school?
   - How were parents and/or guardians notified?
   - Are there schools located outside the plume exposure pathway EPZ that have students living within the EPZ? What arrangements are made for those students?
   - What type of transportation was provided to the students (e.g., bus, etc.)?
   - Who notifies the bus drivers?
   - Were there adequate buses available? And how do they communicate with the school?

- Do the bus drivers know where to take the students? Are they trained on what to do?
- Was the school evacuated during the plume? What means of monitoring and decontamination were used?

4. Communicate with transportation officials.
   - What transportation needs or resources were required?
   - Was a list of the transportation providers available?
   - Were transportation providers contacted?
   - How were needs for transportation-dependent individuals met?
   - Were designated pick-up points used?
5. Identify evacuation routes for the general public.
   - What evacuation routes were selected?
   - Were the direction of the wind/plume and/or other hazardous conditions considered in determining which evacuation routes were used?
   - How was this information communicated to the media and the public?
   - How were alterations to the pre-designated routes communicated to the media and the public?
   - Was the facility evacuated during the plume?
6. Make KI available to both institutionalized persons and the general public, in accordance with plans and procedures.
   - How was the decision to take KI disseminated to the public and institutionalized persons?
   - Did the ORO provide KI to the general public and institutionalized persons? If so, how was it distributed?
   - What quantities of KI are available?
   - Where is KI stored?
   - What dosages of KI are available?
   - What is the expiration date of KI? If there is an extended policy, where is the letter certifying the extension?
   - Did the ORO ensure that the KI is stored in a temperature-controlled facility?
   - What information was provided to the general public with regard to KI?
   - What instructions were provided for the use of KI?
   - Did the instructions include dosages and frequency to take KI?
   - Did the instructions include contradictions and side effects of using KI? How was it explained?
   - How was KI ingestion documented for institutionalized persons?
   - Did staff maintain lists of the institutionalized individual who ingested KI?

All activities must be based on the ORO's plans/procedures and completed as they would be in an actual emergency, unless noted above or otherwise specified in the Extent-of-Play Agreement.

State Negotiated Extent of Play:
Within Pennsylvania, the Pennsylvania Department of Health is responsible for distribution of KI to the general public located within the EPZ. Pre-distribution is accomplished on an annual basis. KI is not distributed to the general public at the time of an emergency. *Dosimetry and KI are not pre-distributed in Beaver County.* ***Evaluation of this sub-element will take place at the Beaver County Hazmat Garage out-of-sequence via interview on June 11, 2024, immediately following the PSP demonstration.*** *Dosimetry and KI will be verified*

using inventory sheets prior to the exercise by FEMA.

Evaluation of emergency worker KI quantities will be verified using inventory sheets. KI will not be removed from storage locations and boxes will not be opened. KI questions will be addressed through interviews. FEMA acknowledges that the Pennsylvania stock of KI may be expired at the time of the exercise. The NRC has ordered replenishment of the KI stock that may arrive prior to or shortly after the exercise. Therefore, FEMA will accept that the Pennsylvania KI stock is adequate even if past the expiration date

Personnel assigned to operate monitoring/Decontamination Stations and stations are not issued DRDs or KI since the centers/stations are located outside the EPZ. Each will be issued a simulated PRD with mock serial numbers. For purposes of demonstration, a minimum of one PRD will be issued.

If the scenario has no radiological release, or potential of a radiological release, the decision-making process on the need to recommend KI can be addressed through an interview if required.

The names, locations, and contact information of identified individuals with access/functional needs are maintained on a list at their respective municipal EOC (based upon residential jurisdiction). Copies of these lists will not be provided to the evaluators; however, evaluators will be allowed to inspect the lists during the exercise.

NOTE: Beaver County maintains a countywide access/functional needs list for individuals requiring assistance. This list may be viewed at the county as it will not be disseminated for exercise purposes.

Evaluators may ask, by interview at the county, about the transportation plans concerning transportation, staging, source of vehicles, radiological protection of the drivers/emergency workers, and routes or assignments of vehicles for transportation dependent individuals and transportation of persons with disabilities and access/functional needs. No buses or drivers will be mobilized.

Initial contact, by the County, with special populations (hospitals, nursing homes and county correctional facilities) will be actual. All subsequent calls will be simulated. Actual contacts (up to two per risk county) will be made with transportation providers per their plan. All actual and simulated contacts should be logged.

School students will not be involved during the exercise. Actions and activities associated with the demonstration of Capability Target 1.5 will be limited to the School District Administration key personnel, evaluated schools, and the County. Evacuation of students will be conducted through a separate out of sequence exercise with School District personnel or the building principal.

The role of the bus driver may be conducted through an interview with school or transportation officials (or designee). Actual demonstration of the bus route is not required and will not be demonstrated. Maps or route descriptions will be available for illustration purposes.

Risk County school plans do not require communications between the school and vehicles. Bus drivers are not considered emergency workers and therefore do not require dosimetry unless returning to the EPZ to fulfill relocation requirements.
Private schools, private kindergartens, and day care centers do not participate in REP exercises. However, OROs will be prepared to show evaluators lists of these facilities that they would contact in the event of an emergency in accordance with plans and procedures. Any simulated contacts should be logged.

Capability Target 1.6: Protective Action Decisions for the Post-Plume Phase *(Vice Sub-Element 2.d.1, 2.e.1)*

Core Capabilities: Operational Coordination; Environmental Response/Health and Safety; Situational Assessment; Critical Transportation; Housing; Planning

Recommended Evaluation Frequencies: At least once every 8-years
Recommended Assessment Activities: Exercise; Drill

Planning Reference: NUREG-0654/FEMA-REP-1, Rev. 2 (J.12, J.14, J.14.a-f, M.1, M.1.b, M.4, M.5, M.6, M.7, M.8, and O.1)

Intent: The capability to assess the radiological consequences for the ingestion exposure pathway and post-plume phase, relate them to the appropriate PAGs, and make and coordinate timely, appropriate PADs to mitigate exposure.

Demonstration and Evaluation Guidance:

1. Make post-plume phase decisions in a timely manner.
   - Who has the authority to make ingestion exposure pathway decisions?
   - Who has the authority to make decisions for relocation, reentry, reoccupancy, or return?
   - What Federal guidance was utilized in the decision-making process?
   - What additional resources, if any, were requested or anticipated?
   - Were there any precautionary protective actions for the ingestion exposure pathway considered prior to analytical data?
   - Did ingestion exposure pathway assessment include analysis of water, food, and release characterization?
   - What times were decisions regarding the ingestion exposure pathway made, including precautionary protective actions?
   - How were boundaries of temporary embargo zones identified?
   - How were the boundaries of the deposition footprint determined (e.g., field and/or aerial measurements, deposition projections or a combination of sources)?
   - Were crops grown in affected areas identified? Was there a determination on how crops would be harvested or tracked?
   - How were water supply sources identified?
   - Were sample results obtained from specified labs? Were dose assessments based upon sample results? Were locations plotted on a map to identify areas that exceed PAGs?
   - What watershed and agricultural data was used to make decisions?
   - Did ANI participate and did they address compensation of loss?
2. Make relocation decisions for the post-plume phase in a timely manner.
   - How were integrated doses in contaminated areas estimated? Were they compared to the PAGs?
   - How were the areas to be restricted identified/determined? What factors were used to make the decision (e.g., the mix of radionuclides in deposited materials, calculated exposure rates vs. the PAGs, field samples of vegetation and soil analyses, etc.)?
   - Was the optional approach (230 μR/hr) to determine the restricted area boundary utilized?

- How was access to evacuated and restricted areas controlled? What agencies have that responsibility?
- How was the area of interest identified?
- If aerial measurements were used, what method or procedure will be used to identify the area of interest that is below the detection limit of the aircraft?
- How did the ORO relocate members of the evacuated public who lived in areas that now have residual radiation levels in excess of the PAGs?
- How did the ORO determine the area(s) to be restricted?
- What resources are available for providing medical and social assistance for relocated individuals?

3. Make reentry decisions for the post-plume phase in a timely manner.
   - What was the coordinated strategy for authorized reentry of individuals to the restricted zone? What was considered when forming the strategy (e.g., established exposure limits, maintenance of essential services and/or property, security, retrieval of possessions, etc.)?
   - How did the ORO determine location of control points, who should be allowed to re-enter the restricted zone, and what provisions were made to determine and control their exposure?
   - How did the ORO provide for exit from the restricted area, including monitoring of persons, vehicles, and equipment?
   - What were the exposure limits, including the time period over which the dose would accumulate?
4. Make return decisions for the post-plume phase in a timely manner.
   - What were the return boundaries based on? (e.g., political boundaries, physical boundaries)
   - Was return permitted to the boundary of the restricted area or was a buffer zone established?
   - Did decision-makers consider restoration of services for areas where return was allowed? (e.g., medical facilities, schools, utilities, roads, and intermediate housing).
5. Make re-occupancy decisions for the post-plume phase in a timely manner.
   - What considerations are made for reoccupancy?
   - What factors were taken into account to consider reoccupancy?
   - What community organizations were part of the decision-making process?
   - What instructions were provided to the population allowed to reoccupy areas?
   - Were any additional actions necessary for populations to reoccupy an area? (e.g., washing down buildings, restricting use of backyard produce gardens)
6. Coordinate PADs as appropriate.
   - What arrangements were made to coordinate potential decisions?
   - How were decisions coordinated internally and with other jurisdictions?
   - How were decisions communicated?

All activities must be based on the ORO's plans/procedures and completed as they would be in an actual emergency, unless noted above or otherwise specified in the Extent-of-Play Agreement.

State Negotiated Extent of Play:
This sub-element will not be evaluated during this exercise.

Capability Target 1.7: Protective Action Decision Implementation for the Post-Plume Phase *(Vice Sub-Element: 3.a.1, 3.d.1, 3.e.1, 3.e.2, 3.f.1, 5.b.1)*

Core Capabilities: Operational Coordination; Public Information and Warning; Environmental Response/Health and Safety; Critical Transportation; Health and Social Services; Housing; Natural and Cultural Resources; Planning

Recommended Evaluation Frequencies: Biennially
Recommended Assessment Activities: Exercise; Drill

Planning Reference: NUREG-0654/FEMA-REP-1, Rev. 2 (C.2, J.12, J.14, J.14.a-f, M.1, M.1.b, M.4, M.5, M.6, M.7, M.8, and O.1)

Intent: The capability to implement and coordinate PADs to mitigate exposure and address long-term radiological consequences.

Demonstration and Evaluation Guidance:

1. Communicate and implement protective actions for agribusinesses, such as dairy farms, meat and poultry producers, fisheries, fruit growers, vegetable growers, grain producers, food processing plants, and water supply intake points.
   - How were agribusinesses notified of the PADs?
   - What coordination and communications among organizations responsible for implementing protective actions occurred? How were changes and developments communicated?
   - Were precautionary protective actions taken to prevent contamination?
   - Were Federal and other resources identified that will assist with determination and implementation of ingestion exposure pathway protective actions?
2. Formulate protective action information (e.g., brochures, email, text message, etc.) for the general public and food producers and processors.
   - Were there instructions in the protective actions provided on what foods or crops were being affected?
   - Were protective actions clearly provided and were maps provided identifying the specific areas in which to implement the protective actions by the decision-makers?
   - Were reproduction-ready information and instructions to pre-determined individuals and businesses available for production and distribution (obtain copies of available information)? Was the information on the handouts current?
3. Control, restrict, or prevent distribution of contaminated food by commercial sectors, ensuring communication and coordination with agencies responsible for enforcing food controls.
   - What were the state/local requirements to implement embargos or condemnations?
   - Who delivered condemnation or embargo notices to agribusinesses?
   - How were necessary legal notices delivered?
   - Did the ORO use Federal resources as identified in the National Response Framework Nuclear/Radiological Incident Annex, if needed?
   - What coordination and communications among organizations responsible for implementing protective actions occurred?

- What measures were taken and what strategies were developed by the ORO to implement protective actions for general public and for food producers in the ingestion exposure pathway EPZ, including preventing distribution of potentially contaminated food?
- Was there current information on the locations of permanent agribusiness facilities available? From what source was this information obtained?
- In addition to the location of agribusiness sites, what other information (e.g., name and address of owner) was available?
- Was there current information on harvest times available? From what source was this information obtained?
- Was a plan developed to monitor transportation routes out of the affected areas and to monitor and sample foods on vehicles leaving the area?
- Who is responsible to monitor and sample foods on vehicles and where will they be located?
- Where or how were condemned food products taken for disposal?

4. Communicate instructions to the public regarding relocation decisions and intermediate-term housing for relocated persons.
   - What coordination and communications among organizations responsible for implementing protective actions occurred?
   - How were decisions and instructions for relocation communicated to organizations and the public?
   - Was a monitoring and decontamination location included in the information provided to the public?
5. Coordinate and implement decisions concerning relocation, including short- and/or long-term relocation of evacuees.
   - What coordination and communications among organizations responsible for implementing protective actions occurred?
   - How did the ORO coordinate and implement decisions concerning relocation of individuals from now-restricted areas?
   - What were the provisions of short-, intermediate-, and long-term relocation of evacuees from now-restricted areas?
   - Was the ORO prepared to provide housing?
   - What were the arrangements made to relocate those displaced as a result of contamination? What provisions were made for their care and support?
   - How were transportation-dependent evacuees transported from the restricted zone if they had not been previously evacuated? What transportation was provided? How was it communicated?
6. Control reentry and exit of individuals who are authorized by the ORO to temporarily reenter the restricted area.
   - What coordination and communications among organizations responsible for implementing protective actions occurred?
   - What coordination and implementation of decisions for temporary reentry of individuals to restricted areas occurred?
   - What instructions/information were provided prior to reentry (e.g., map and plots of radiation exposure rates, advice on areas to avoid, associated time frames, etc.)?
   - How were those individuals permitted temporary reentry to restricted areas protected from unnecessary radiation exposure?

- Were DRDs and PRDs assigned for emergency workers and individuals permitted temporary reentry to a restricted area? What information was provided regarding dosimetry use?
- Were persons reentering escorted by someone trained in the use of dosimetry?
- What were the procedures for exit from the restricted area(s) emergency workers and individuals?
- What were the procedures for exit from the restricted area(s) for vehicles and other equipment?
- How were dosimetry and exposure record handled upon exit from the restricted area(s)?
- Was monitoring and decontamination conducted at the exit from the restricted area or at a separate center?
- How were individuals transported into and out of the restricted area?

7. Implement policies concerning return of members of the public to areas that were evacuated during the plume phase.
   - What coordination and communications among organizations responsible for implementing protective actions occurred?
   - How were services and facilities (e.g., utilities, food store/restaurants, hospitals, schools, etc.) that require restoration within a few days identified and prioritized?
   - What resources were available to facilitate restoration?
   - Was implementation of the decision to return supported by restoration of services and facilities?
   - Were hot spots decontaminated if necessary?

All activities must be based on the ORO's plans/procedures and completed as they would be in an actual emergency, unless noted above or otherwise specified in the Extent-of-Play Agreement.

State Negotiated Extent of Play:
This sub-element will not be evaluated during this exercise.

OBJECTIVE 2 - Exposure Control

Capability Target 2.1: Emergency Worker Exposure Control Decision-Making Process *(Vice Sub-Element: 2.a.1)*

Core Capabilities: Operational Coordination; Environmental Response/Health and Safety; Situational Assessment; Planning

Recommended Evaluation Frequencies: Biennially
Recommended Assessment Activities: Exercise; Drill

Planning Reference: NUREG-0654/FEMA-REP-1, Rev. 2 (C.2.c, H.11, K.2, K.2.b, K.3, K.3.a, M.1.b, M.8, and O.1)

Intent: The capability to assess and control the radiation exposure and dose received by emergency workers and utilize a decision-making chain to authorize emergency worker exposure limits to be exceeded for specific missions.

Demonstration and Evaluation Guidance:

1. Control emergency workers' exposure and dose, including offsite workers performing duties onsite.
   - Who was responsible for managing emergency workers' exposure and dose?
   - Were projected doses and likely exposure rate patterns considered before dispatching workers?
   - Were any of the following considered: alternate entry and exit routes; potential changes to meet conditions; area or roads to avoid; what to do in the event of equipment or vehicle failure; and previous doses?
   - Were safety issues, supplemental to radiation, considered for the locations of field teams, the ICP, and other appropriate personnel?
   - How did incoming mutual aid, including Federal or private resources, obtain dosimetry, radioprotective drugs, and subsequent just-in-time training?
   - Who briefed emergency workers? Did the briefing include the following:
     - Ensuring dosimetry are zeroed or initial reading is recorded.
     - Frequency to read and record dosimeters.
     - The process of reporting exposures.
     - Proper placement of dosimeters.
     - Proper use of PRDs.
     - Ingestion and documentation of radioprotective drugs.
     - Potential adverse effects of radioprotective drugs.
     - The location to report to for monitoring and decontamination.
2. Maintain record of dose as a result of exposure.
   - How were exposures and subsequent doses reported from the field documented?
3. Authorize exposures and dose in excess of identified limits.
   - Who authorized emergency workers to receive exposure in excess of identified limits?
   - What were the identified limits?
   - How was this authorization documented?
4. Process for considering occupational exposures and to authorize individuals to receive doses in excess of occupational dose limits.
   - Was occupational exposure considered for those working during the emergency, in both the intermediate and late phases of a NPP accident?
   - Who authorized occupational doses in excess of Federal limits?
5. Determine a correction factor for DRD-based isotopic release mixture.
   - What approach was used to correct DRD readings to TED (e.g., dosimeter corrections factors)?
6. Control exposure and dose for temporary reentry of emergency workers, or members of the public, to restricted areas.
   - What provisions were available for controlling exposure and dose rates for temporary reentry to restricted areas?
   - How were controlled exposure and doses documented for those reentering restricted areas?
7. Determine the need to authorize radioprotective drugs using projected thyroid doses and field measurements. Projections are compared to previously established PAGs.
   - Who authorized emergency workers to take radioprotective drugs?
   - When was the decision made to authorize emergency workers to take radioprotective drugs?

- Was the decision to use radioprotective drugs based on projected thyroid doses?
- Were projected thyroid doses compared to establish PAGs?
- Did the decision-making process for use of radioprotective drugs include close coordination with assessment and decision-making staff?
- How was the decision to authorize radioprotective drugs communicated to emergency workers?

8. Adequately protect members of the public from radiological exposure and control dose for those who are authorized to temporarily reenter a restricted area.
   - What provisions were there for dosimetry and contamination control for emergency workers and members of the public temporarily reentering a restricted area?
   - What exposure rates or limits were established for emergency workers and members of the public temporarily reentering a restricted area?
   - How were exposure and doses documented and controlled for emergency workers and members of the public temporarily reentering restricted areas?
   - What was the process for decontamination, collection of dosimetry, and recording exposures for emergency workers or members of the public exiting the restricted area following temporary reentry?
   - How was contamination monitoring and decontamination conducted for those exiting a restricted area?

All activities must be based on the ORO's plans/procedures and completed as they would be in an actual emergency, unless noted above or otherwise specified in the Extent-of-Play Agreement.

State Negotiated Extent of Play:
If the scenario has no radiological release or potential for a radiological release the decision on distribution and administration of KI as a protective measure for emergency workers and the authorization process for emergency workers to exceed pre-authorized levels can be addressed through an interview if required at the CRCC.

Capability Target 2.2: Emergency Worker Exposure Control Management *(VICE Sub-Element 3.a.1)*

Core Capabilities: Operational Coordination; Environmental Response/Health and Safety; Planning

Recommended Evaluation Frequencies: Biennially
Recommended Assessment Activities: Exercise; Drill

Planning Reference: NUREG-0654/FEMA-REP-1, Rev. 2 (C.2.c, H.11, H.11.b, K.2.b, K.3, K.3.a, M.1.b, and O.1)

Intent: The capability of emergency workers to manage dose and exposure, use equipment (e.g., dosimetry, radio protective drugs), and identify procedures to monitor their exposure and dose, including following procedures to obtain authorization to receive emergency exposures in excess of the PAGs.

Demonstration and Evaluation Guidance:

1. Maintain an appropriate inventory of DRDs that are leak-tested or current in calibration.
   - What types of DRDs were used?
   - Were they consistent with the plans?
   - Were they current in calibration or leak test?
2. Maintain an appropriate inventory of PRDs.
   - What type of PRDs were used?
   - Was the inventory of available PRDs sufficient for the number of workers?
   - How many PRDs were available?
3. Retain an adequate supply of radioprotective drugs.
   - Was there an adequate supply of radioprotective drugs?
   - How many doses of radioprotective drugs were available?
   - Was the quantity of radioprotective drugs available sufficient for the number of individuals needing to take it?
4. Adequately distribute appropriate DRDs and PRDs.
   - Was dosimetry distributed in a timely manner?
   - Was dosimetry distributed appropriately to read identified exposure limits?
   - Did workers receive personal dosimetry or group dosimetry?
5. Adequately distribute radioprotective drugs to emergency workers.
   - Were radioprotective drugs distributed in a timely manner?
6. Record and report exposures in the field.
   - Did workers read and record dosimetry on a regular basis?
   - At what frequency were readings recorded?
   - To who were the readings reported?
   - Who briefed emergency workers? Did the briefing include the following:
     - Ensuring dosimetry are zeroed or initial reading is recorded.
     - Frequency to read and record dosimeters.
     - The process of reporting exposures.
     - Proper placement of dosimeters.
     - Proper use of PRDs.
     - Ingestion and documentation of radioprotective drugs.
     - Potential adverse effects of radioprotective drugs.
     - The location to report to for monitoring and decontamination.
7. Implement decisions to administer radioprotective drugs.
   - What was the quantity of the inventory of radioprotective drugs and the expiration date?
   - Was the available quantity of radioprotective drugs sufficient to support the number of emergency workers?
   - Was the supply of radioprotective drugs stored according to manufacturer recommendations?
   - How was the ingestion of radioprotective drugs documented?
   - Did emergency workers have a basic knowledge of procedures for ingesting and recording the use of radioprotective drugs, even if the scenario did not drive its use?
   - How were records of exposure and ingestion of radioprotective drugs maintained?
   - Did plans/procedures include a mechanism for identifying an emergency worker who has declined to take radioprotective drugs in advance? If so, how was this documented?
8. Report to individual responsible for managing exposure and dose when limits are reached.
   - What was the identified exposure limit?

- What was the dosimeter correction factor and how was it communicated to emergency workers?
- What is the process for receiving approval for exceeding exposure limits and dose limits?
- Who authorized emergency workers to exceed limits or replace a worker who has reached exposure limits?
- Who coordinated with offsite emergency workers who were performing duties onsite?

9. Implement exposure control decisions to members of the public from radiological exposure and control dose for those who are authorized to temporarily reenter a restricted area.
   - What exposure control decisions were implemented to members of the public? What was the control dose for those who were authorized to temporarily reenter a restricted area?

All activities must be based on the ORO's plans/procedures and completed as they would be in an actual emergency, unless noted above or otherwise specified in the Extent-of-Play Agreement.

State Negotiated Extent of Play:
Radiological briefings will be provided to address exposure limits, procedures to replace those approaching limits, and how permission to exceed limits is obtained from the county. Emergency workers will also be briefed on when to take KI and on whose authority. Distribution of KI will be simulated. *OROs should also demonstrate the use of all applicable dosimetry forms to emergency workers. The completion of one "Dosimetry-KI Form" will be demonstrated.* *At any time, players may ask other players or supervisors to clarify radiological information.* *In Pennsylvania, emergency workers do not have turn-back values.* *Emergency workers who are assigned to low exposure rate areas, (e.g., counting laboratories, emergency operations centers, and communications centers) may have individual direct reading dosimeters or they may be monitored by dosimeters strategically placed in the work area. In Pennsylvania, this will be accomplished using an area kit. The area kit process is explained in State, County and Municipal Plans.* *Standard issue of dosimetry and KI for each category of emergency worker is as follows:* *Category A: 1 PRD, 1 DRD, and 1 unit of KI* *Category B: 1 PRD and 1 unit of KI* *Category C: 1 PRD* *NOTE: Emergency responders located outside the EPZ have limited potential for radiation exposure (e.g., monitoring/decontamination teams, MS-1 hospital staffs). EMS crews transporting contaminated or potentially contaminated individuals outside of the EPZ are <u>not</u> provided dosimetry as per Annex E, Appendix 5 – Radiological Exposure Control, page E-5-35.* *All locations that have dosimetry equipment indicated within their Radiological Emergency Response Plan (RERP), will make the dosimetry equipment (and KI) available for inspection by the Federal Evaluator. Simulation PRDs with mock serial numbers will be used.*

Personnel assigned to operate monitoring/Decontamination Stations and stations are not issued DRDs or KI since the centers/stations are located outside the EPZ. Each will be issued a simulated PRD with mock serial numbers. For purposes of demonstration, a minimum of one PRD will be properly issued.

OBJECTIVE 3 - Alert and Notification

Capability Target 3.1: Communications *(Vice Sub-Element: 1.d.1)*

Core Capabilities: Operational Communications; Operational Coordination; Situational Awareness; Planning

Recommended Evaluation Frequencies: At every assessment activity
Recommended Assessment Activities: Exercise; Communication Drill (N.4.e)

Planning Reference: NUREG-0654/FEMA-REP-1, Rev. 2 (E.1.a, E.3, F.1, F.1.a, F.1.b, F.1.c, F.3, and O.1)

Intent: The capability to provide and maintain reliable communications with emergency personnel.

Demonstration and Evaluation Guidance:

1. Utilize communication systems that are fully functional, continuously available, and redundant.
   - What types of communications system(s) and method(s) were available? Which were demonstrated?
   - Was the communication system(s) fully functional?
   - Did personnel demonstrate familiarity of use with each system/method?
   - Was a communications check with other jurisdictions, field teams, and/or other support organizations required and completed?
2. Maintain periodic test results and corrective actions on a real time basis.
   - How were test results and corrective actions tracked in real time?
   - Was documentation of the test results and/or corrective actions made available?
3. Access at least one communication system that is independent of the commercial telephone system.
   - Which communication system(s) available was independent of commercial telephone?
   - Was it able to be accessed/utilized?
4. Manage the communication systems and ensure that all message traffic is handled without delays that might disrupt emergency operations.
   - Were there any delays in message traffic that disrupted emergency operations? If so, how were the delays addressed/mitigated?
5. Identify and address any failures of the systems.
   - Were there any communication failures? If so, how was the failure identified?
   - What actions were taken to correct the failure and/or how was the failure overcome?
   - Did the failure affect overall performance?
6. Transmit, receive, and understand messages (i.e., “content check”).
   - Were the messages transmitted/received understood by personnel?
   - What was the message?
   - Was a “content check” (i.e., informational message that could be received during an actual radiological emergency) performed?

All activities must be based on the ORO's plans/procedures and completed as they would be in an actual emergency, unless noted above or otherwise specified in the Extent-of-Play Agreement.

State Negotiated Extent of Play:
Risk and support counties will communicate with the CRCC via the commercial telephone system (primary), SEVAN (secondary), email, and other systems. In the event the plant is unable to contact the CRCC via the Dedicated Automatic Ring Down Telephone, the Power Plant will contact the CRCC via the commercial telephone system. If the plant cannot contact the CRCC, the Power Plant will contact the ***Beaver County EOC,*** *and they will fulfill the role of primary contact until communications with the CRCC can be made.* *The Commonwealth coordinates commonwealth and county response via a phone/internet bridge line. When warranted, siren sounding will be coordinated on the phone/internet bridge line.* *Risk counties will communicate with their risk municipalities via public safety radio frequencies (EMA Radio), commercial telephone, email, fax, or Amateur Radio Communications (ARES/RACES) or other available means.* *Bureau of Radiation Protection Field Teams will demonstrate two or more forms of communications.*

Capability Target 3.2: Alert and Notification of the Public *(Vice Sub-Element: 5.a.1; 5.a.3; 5.a.4)*

Core Capabilities: Public Information and Warning; Planning

Recommended Evaluation Frequencies: Biennially
Recommended Assessment Activities: Biennial exercise only

Planning Reference: NUREG-0654/FEMA-REP-1, Rev. 2 (E.2, E.4, E.5, F.3, and O.1)

Intent: The capability to provide instructions to the public.

Demonstration and Evaluation Guidance:

Alert and Notification System

1. Sequentially provide an alert signal followed by an initial instructional message to populated areas.
   - Who has releasing authority of initial EAS or other notification method messaging?
   - Who made the decision to activate the alert and notification system?
   - What process is followed to activate the system?
   - Who activated the system?
   - What alert method(s) was used (siren-system, tone-alert radio, route alerting, telephone, Telecommunication Device for the Deaf/TeleType [TDD/TTY], etc.)?
2. Alert and notify the general public.
   - Was the same method used for approving and releasing subsequent alert and notification as the initial alert/ notification?

- What alert method(s) was used (siren-system, tone-alert radio, route alerting, telephone, TDD/TTY, etc.)?
- What message was sent out? Was it pre-scripted?
- How often were messages repeated?
- Conduct initial messaging with, at a minimum, the following four essential elements in the message:
  - Identification of the ORO responsible and the official with authority for providing the alert and instructional message;
  - Identification of the commercial NPP and a statement that an emergency exists there;
  - Reference to REP-specific emergency information (e.g., brochures, calendars, and/or online information) for use by the general public during an emergency;
  - A closing statement asking that the affected and potentially affected population stay tuned for additional information, or that the population tune to another station for additional information.

3. Identify and address any failures of the system(s) or portion of a system(s).
   - Were there any failures of the system or a portion(s) of the system?
   - How were any failures of the system or a portion(s) of the system identified?
   - Was the failure attributed to a specific portion of the plume and/or ingestion exposure pathway EPZ or segment of the population? How?
   - What alternate means of alert and notification (e.g., simultaneous, or concurrent failure models have overlapping systems which will seamlessly address failures; activation of additional system(s); route alerting; etc.) was utilized for the area of the plume and/or ingestion exposure pathway EPZ or segment of the population affected by the failure(s)? How were the alerts/notifications provided? What was the message?
   - Once the failure was identified, what actions were taken?
   - If message dissemination is identified as not being accomplished in a timely manner, what was the specific delay? What caused the message to not be provided in a timely manner?
4. Actual testing of the mobile public address system will be conducted at an agreed upon location.
   - What notification methods were tested?
   - How does the notification system deliver messages (e.g., via phone call, text message, and email based on a database of contact information associated with physical addresses)?
   - How, and how often, is the system tested?

EAS

1. Identify the process to activate the EAS.
   - What protocol or system was used to activate the EAS? (i.e., software, NWS, radio station, IPAWS)
   - How long did the process take to activate the system?
   - If NWS or radio station was used, was there verification between the ORO and the broadcast station of the EAS message prior to broadcast?
2. Ensure that updated emergency information is disseminated in a timely manner.
   - Were messages updated to relay the most current information concerning the incident?
3. Ensure that current emergency information is repeated at pre-established intervals.

- What are the pre-established intervals?
- How often was information repeated?

4. Identify the process to activate the EAS, to include the process to receive and then broadcast updated information/ messages and verification of the message, if applicable.
   - Did the station have a copy of current plans, procedures, and messages?
   - Did station staff demonstrate the process to broadcast messages?
   - If required, did the EAS station verify who the message came from and that it is the correct message?
   - Was the EAS station kept updated with new information and messages? How?
5. Broadcast the message on a 24-hour basis.
   - What is the 24-hour capability of this location?
   - Is there back-up power supply or is an alternate station used?

Route/Alternate Alerting

1. Complete route alerting, whether because of failure for system/portion of a system or for exception areas, as needed to demonstrate all routes are capable of being run in allotted time. Emphasis on the most challenging routes and demonstration of these routes will be varied from assessment activity to assessment activity. Challenging routes are defined as those that may be difficult to accomplish, such as those that are lengthy or with conditions (physical or otherwise) that may affect the speed and accuracy with which the route can be completed (e.g., traffic patterns and/or capacity, road conditions, etc.).
   - Why was route/alternate alerting initiated?
   - Was this a FEMA-approved exception area?
   - What organization(s) are responsible for providing route/alternate alerting?
   - Under what conditions was route/alternate alerting initiated?
   - Who notified the resources to begin route/alternate alerting? How were they notified?
   - What resources provided route/alternate alerting?
   - How long did it take to complete the route/alternate alerting?
   - How was the message announced? What was the content of the message?
   - For exception area notification, was it completed within 45 minutes of the initial decision by authorized offsite emergency officials to notify the public of an incident?
   - What system was used for exception areas?
   - Who approves the use of the system for alerting exception areas?
   - Who deployed the system for alerting exception areas and what was the process?
   - Can individual sub-areas be activated using the system to alert FEMA approved exception areas?
   - Was a test done or was a previous tests report used as confirmation of operation in alerting exception areas?

All activities must be based on the ORO's plans/procedures and completed as they would be in an actual emergency, unless noted above or otherwise specified in the Extent-of-Play Agreement.

State Negotiated Extent of Play:
The Commonwealth of Pennsylvania has implemented a Statewide EAS Control System in cooperation with the Pennsylvania Association of Broadcasters per the State Emergency Communications Committee and Pennsylvania Emergency Alert System State EAS Plan (November 2, 2011). The CRCC (PEMA) is the initiating point for the activation of the EAS. Risk counties have the control equipment for activation of sirens. Coordination will occur between the CRCC and the affected counties with respect to the Alert and Notification System (ANS) process. Sirens will be coordinated, and the sounding simulated at the appropriate time with the simulated activation of EAS taking place approximately three minutes following the simulated activation of the sirens. The EAS will be read and explained to the evaluator, and given a copy of the EAS to them. Regular broadcasting will not be interrupted on the EAS Stations. Broadcast of the message(s) or test message(s) is ***NOT*** *required and* ***NOT*** *requested. Counties may elect to simulate county specific supplemental messages to their electronic local media.* *Following the decision to activate the alert and notification system, in accordance with the OROs' plan and/or procedures, ANS activation should be accomplished in a timely manner for primary alerting/notification. This action will be performed "with a sense of urgency and without undue delay" (REP Manual-January 2019).* ***All actions to broadcast stations will be simulated. Systems that use automatic sending technology may be demonstrated by explanation during an interview.*** *Each evaluated municipality per risk county will demonstrate, by interview, notification of the hearing-impaired residents within their jurisdiction. Hearing impaired notification teams will not be deployed.* *Alert Notification of the public will be demonstrated by Beaver County EMA using an electronic notification system as documented in the County Plan. The system is activated to alert the entire 10-mile EPZ concurrently with siren activation; no siren failure inject will be used. For evaluation purposes, a Drill alert message (phone call, text, email) will be sent to a pre-determined list of FEMA Evaluators. This list will be supplied to the County by FEMA at least one week prior to the exercise. The message will be sent in the same manner and contain the same information as would be sent to the public in an actual emergency. The County will also send a Wireless Emergency Alert (WEA) message using their Test COG to the IPAWS Test Lab, the results of which may be verified by FEMA using the IPAWS Message Viewer website.* ***If the IPAWS Test Lab or Message Viewer are not available for any reason during the in-sequence evaluation, arrangements will be made between the County and FEMA to demonstrate at an agreed upon time. A siren failure inject will be used to prompt this activation.*** *Section II.4. Pennsylvania does not have any "exception areas."* ***Alternate methods of route alerting will NOT be evaluated.*** *IPAWS may be used, as long as it does not interfere with the required, demonstrated, and evaluated notifications. Alternate methods of route alerting will NOT be evaluated.* *Pennsylvania has no exception areas.*

Capability Target 3.3: Emergency Information and Instructions for the Public and News Media *(Vice Sub-Element: 5.b.1; 3.e.2)*

Core Capabilities: Public Information and Warning; Planning

Recommended Evaluation Frequencies: Biennially
Recommended Assessment Activities: Biennial exercise only

Planning Reference: NUREG-0654/FEMA-REP-1, Rev. 2 (E.2, E.4, E.5, G.1, G.2, G.3, G.3.a, G.4, G.5, and O.1)

Intent: The capability to disseminate emergency information and instructions to the public during all phases of an incident.

Demonstration and Evaluation Guidance:

Plume Phase

1. Deliver coordinated, prompt, reliable, and actionable information in a timely manner.
   - Who approves the message content and authorizes the release of the message?
   - Was messaging coordinated with appropriate Federal, state, local, and tribal stakeholders prior to dissemination?
   - Were methods consistent with an established JIS?
   - How often was emergency information repeated?
2. Provide clear, concise, accessible messaging using plain language.
   - Was language clear, concise, accurate, and delivered in a timely manner?
   - Was the PAD correctly and appropriately reflected?
   - Was the ECL appropriately disclosed and adequately explained?
   - When needed, were familiar landmarks and boundaries to describe protective action areas?
   - Was there a closing statement included in the messaging? If so, what was it? How was it communicated to affected and/or potentially affected populations?
3. Messaging addresses appropriate cultural and linguistic considerations.
   - Is public information required to be available in non-English languages at this location/site? If so, how were messages translated and/or provided?
   - How are those with access and/or functional needs provided with messages and actionable information?
   - Are there any cultural and/or other linguistic considerations relevant for this area? If so, what are they and how were they implemented?
4. Ensure subsequent messaging is consistent with protective actions.
   - Are all necessary and applicable instructions (e.g., evacuation instructions, evacuation routes, reception center locations, what to take when evacuating, shelter-in-place instructions, information concerning protective actions for schools and persons with access and/or functional needs, and public inquiry hotline telephone number) to assist the public in carrying out the PADs provided?
   - Was messaging consistent with protective actions?
5. Update information as the incident progresses, to include validating previously identified protective areas and clearly identifying any new protective action areas, any information that is no longer valid, and any changes to previously provided information (e.g., rerouting of evacuation routes due to impediments, etc.).
   - How often was information on the incident progression updated?
   - What new protective action areas were identified?

- How was invalid information rescinded?
- How was invalid information updated to reflect any changes?
- Was follow-up and additional messaging coordinated and delivered? How?

6. Respond to media and public inquiries.
   - Were the appropriate PIOs or subject matter experts (SMEs) available?
   - How did PIOs or SMEs gather and verify information?
   - How did PIOs or SMEs coordinate information with appropriate personnel for approval?
   - How was exchange, discussion, and coordination of information among PIOs or SMEs conducted?
   - Were media briefings conducted? If so, were they frequent, timely, and was information disseminated accurately?
   - Were media and public inquires handled and addressed appropriately?
   - Were trends and/or rumors captured and addressed in media releases?

Post-Plume Phase

1. Rapidly disseminate of ingestion exposure pathway information to predetermined individuals and businesses.
   - Where there any delays or reasons why messages were not timely?
2. Provide information to the public that addresses temporary reentry to a restricted area, permanent relocation from areas not evacuated, and return to formerly restricted areas will be communicated.
   - What sort of information was provided to the public addressing temporary reentry into a restricted area, permanent relocation of areas not evacuated, and return to formerly restricted areas? How was the information communicated?

All activities must be based on the ORO's plans/procedures and completed as they would be in an actual emergency, unless noted above or otherwise specified in the Extent-of-Play Agreement.

State Negotiated Extent of Play:
*Subsequent emergency information and instructions should be provided to the public and the media in a timely manner. This will **NOT** be subject to specific time requirements. One media briefing will be demonstrated in each risk county and at the CRCC JIC.* *The Commonwealth, risk and support counties will receive and handle "Public Inquiry" messages via their individual "Public Inquiry" processes (in compliance with NIMS terminology, Rumor Control is now considered to be "Public Inquiry"). The Commonwealth and counties will receive approximately ten public inquiry calls from the State Exercise Cell assigned this responsibility. The Commonwealth and counties will be expected to receive and log the calls, identify any trends, and take appropriate actions to include follow-up message development, distributions, and/or briefings.*

OBJECTIVE 4 - Detect, Measure, Sample, Analyze, and Assess

Capability Target 4.1: Field Monitoring Teams Management *(Vice Sub-Elements: 4.a.2)*

Core Capabilities: Operational Coordination; Environmental Response/Health and Safety; Planning

Recommended Evaluation Frequencies: Biennially
Recommended Assessment Activities: Exercise; Drill

Planning Reference: NUREG-0654/FEMA-REP-1, Rev. 2 (H.11, H.13, I.5, I.6, I.9, I.10, M.7, M.8, and O.1)

Intent: The capability to provide overall management of FMTs to direct movements and measurements to characterize the plume and its impacts.

Demonstration and Evaluation Guidance:

1. Brief FMTs on predicted plume location and direction, plume travel speed, equipment operational checks, background measurement, and exposure control procedures before deployment.
   - What instructions or assignments were given to the FMT?
   - Who briefed the FMTs prior to deployment? Was the pre-deployment briefing adequate? Did it address predicted plume location and direction, plume travel speed, and exposure/contamination control procedures before deployment?
2. Direct the FMTs to monitoring locations, predesignated points or otherwise, at times and locations sufficient to characterize the plume.
   - Who controlled the FMTs' movement and determination of sample location?
   - Were FMTs directed to locations at times sufficient to characterize the plume?
   - What approach was used to select appropriate sampling locations, pre-designated sampling points, or plume traverse (while maintaining specified exposure limits)?
   - What time were assignments completed?
   - During a HAB incident, were there provisions for the field team management to inform Incident Command of FMT activities and location? Was this activity observed?
3. Obtain peak plume measurements from FMTs.
   - Which agency's (i.e., ORO, licensee, or other) FMTs were assigned the responsibility of finding the plume edge, obtaining peak measurements in the plume, and obtaining maximum radiation readings in the downwind areas (e.g., centerline measurements)?
4. Direct FMTs to collect air samples at locations and times sufficient to characterize the plume.
   - How were locations at which to collect air samples selected?
   - Were the samples taken sufficient to characterize the plume?
5. Keep Incident Command informed of FMTs activities and location(s) during a HAB incident or other instances when an ICP or other may be in use.
   - How were activities and locations communicated with Incident Command during a HAB incident?
6. Coordinate and share information amongst all FMTs (licensee, Federal, state, and local).
   - Did all FMTs (i.e., licensee, Federal, and ORO) share and coordinate plume measurement information?

- Did the ORO coordinate or use any resources from other agencies, e.g., Federal, mutual aid, or compact?

7. Coordinate sample analysis from field to those responsible for assessing radiological data.
   - How was field data coordinated with dose assessors or those responsible for assessing radiological data?
8. Coordinate transfer of sample media to locations and organizations responsible for assessing radiological data.
   - Did coordination concerning transfer of samples, including a chain-of-custody form(s), to a radiological laboratory or laboratories occur?
9. Assist with development and modification of sampling plans, as appropriate.
   - How were sampling plans developed and maintained?

All activities must be based on the ORO's plans/procedures and completed as they would be in an actual emergency, unless noted above or otherwise specified in the Extent-of-Play Agreement.

State Negotiated Extent of Play:
Department of Environmental Protection (DEP), Bureau of Radiation Protection (BRP) field teams are equipped with the necessary instrumentation and supplies. FEMA evaluators will meet the field teams at the ***DEP Southwest Regional Office, 400 Waterfront Drive, Pittsburgh PA 15222 at 1:30 p.m., June 11, 2024*** *to observe instrumentation checks and equipment inventory verification.* *Field Team Control will be performed within or near the 10-mile EPZ using the* ***DEP Southwest Regional Office.*** *Field Team control is expected to initially be out-of-sequence with the plume timeline. During the exercise, the field teams will be directed to take measurements in locations to provide information sufficient to characterize the plume and impacts. Field teams will follow ALARA principles in the deployment of these detectors.* *Field teams will be evaluated by FEMA.*

Capability Target 4.2: Plume Phase Measurements and Sampling *(Vice Sub-Element: 4.a.3)*

Core Capabilities: Environmental Response/Health and Safety; Planning

Recommended Evaluation Frequencies: Biennially
Recommended Assessment Activities: Exercise; Environmental Monitoring Drill (N.4.d)

Planning Reference: NUREG-0654/FEMA-REP-1, Rev. 2 (H.9, H.11, H.11.a, H.11.b, H.12, H.13, I.2, I.5, I.6, I.7, I.8, I.9, I.10, and O.1)

Intent: The capability to make and report measurements of ambient radiation.

Demonstration and Evaluation Guidance:

1. Maintain emergency equipment including calibration and operational checks according to manufacturer's specifications or per national standards.

- Did each FMT perform an operational check on each radiation survey instrument, including a source-response check which is compared to a known range of readings to confirm the instrument can properly measure radiation?
- Did each FMT obtain a background radiation measurement with each radiation survey instrument before entering the affected area?

2. Maintain inventory for emergency kits.
   - Were kits inventoried prior to deployment?
   - Did kits contain supplies and equipment sufficient to support field team operations?
3. Operate and monitor radiation survey instruments to detect changes in radiation exposure rate while moving and in stationary positions.
   - Did FMTs operate and monitor survey instruments continuously and in a way that prevented inadvertent exposure to an active plume?
4. Use appropriate contamination control and PPE.
   - Did field teams use appropriate contamination control techniques?
   - What PPE was used?
   - How was instrumentation protected from contamination?
5. Be in location(s) at the appropriate time(s) to detect and characterize the active release (plume).
   - What agencies participated as part of the FMT?
   - Were field teams moved to potential locations where the plume was predicted to pass?
6. Obtain peak plume measurements either directly or from licensee field teams.
   - Were peak plume measurements obtained? If so, from where?
7. Correctly interpret survey instrument readings to determine submersion in the active plume.
   - What exposure rate did FMTs use to determine the possible edge of the plume?
   - Did FMTs compare waist high open-window and closed-window exposure rates to determine submersion in an active plume?
   - Did FMTs take samples? What samples were taken?
   - Did field team record and report area surveys (ambient exposure rates) at multiple locations?
8. Collect representative air samples in the active plume on particulate media (e.g., glass or paper filter) and iodine selective media (e.g., silver zeolite cartridge).
   - Was air sampling accomplished at a flow rate between 1.5 cfm and 2 cfm to maintain maximum collection efficiencies of the particulate and iodine sampling media?
   - Was the ambient exposure rate monitored to note changes during air sampling? How often was the ambient exposure rate noted (e.g., beginning, mid-sampling, end-of-sampling, or continuously monitored)?
9. Handle sample media and equipment to avoid sample cross-contamination, contamination of equipment and personnel contamination.
   - What methods were used to prevent sample cross-contamination?
   - How were instruments and equipment used for sample counting handled to prevent spread of contamination?
   - How was radiologically contaminated waste handled?
10. Determine an appropriate low background location to count sample media.
    - What was the background counting rate in the low background location selected to count the samples in the field?
11. Count iodine and particulate media using appropriate and effective instrumentation and counting geometries or have samples analyzed by a supporting laboratory within four hours.
    - What instrument was used to count the media in the field?

- What means were used to ensure an effective, repeatable counting geometry?
- If samples were not counted in the field, what was the dedicated transportation means that ensured samples were analyzed by the supporting laboratory within four hours?

12. Report to field monitoring team manager all survey and counting results in format and units suitable for use by the organization's dose assessor.
    - Were results of surveys and, if taken, field results from air samples documented? How were they transmitted?
13. Procedures, qualified collection and counting efficiencies, and calculations are capable of detecting airborne radioactive iodine concentrations as low as 10-7 µCi/cc.
    - Were the flow rate, sample volume, counting efficiencies, and appropriate calculations performed to prove the ability to detect concentrations as low as 10-7 Ci/cc?
14. Preparation of packaging, sample identification, and chain-of-custody forms ensures integrity of samples throughout transportation and transfer.
    - Was packaging and handling adequate to prevent cross-contamination?
    - Was sample identification and chain-of-custody completed to maintain integrity of the samples?

All activities must be based on the ORO's plans/procedures and completed as they would be in an actual emergency, unless noted above or otherwise specified in the Extent-of-Play Agreement.

State Negotiated Extent of Play:
Measurements will be made by DEP BRP, in accordance with the State Annex E, Appendix 6, and BRP Standard Implementing Procedures (IPs). Two mobile monitoring teams from BRP DEP South Western Regional Office will demonstrate ambient radiation monitoring and radioiodine and particulate sampling. Field teams will be equipped with appropriate dosimetry and KI. ***Field teams will be evaluated by FEMA.*** *Each team will be directed to monitoring locations and perform actual radiation measurements at each location. Measurements may consist of truck installed radiation monitor or hand-held radiation instruments.* ***An actual air sample will be taken in the field when the trigger point is reached, or at the direction of the Field Team Coordinator. Air sample analysis will be done in the field in accordance with plans and procedures.*** *Field teams will discuss air sample counting procedures via an interview process. Teams will then take additional simulated air samples, as directed, at additional locations, if conditions are appropriate for radioiodine sampling and relay information to control at the* ***DEP Southwest Regional Office.*** *In place of silver zeolite cartridges, charcoal cartridges will be used for the exercise. All measurements will be forwarded to control at the* ***DEP Southwest Regional Office.*** *FEMA Observers will meet the field teams at the* ***DEP Southwest Regional Office, 400 Waterfront Drive, Pittsburgh PA 15222at 1:30 p.m., June 11, 2024****.*

Capability Target 4.3: Post-Plume Phase Measurements and Sampling *(Vice Sub-Element: 4.b.1)*

Core Capabilities: Environmental Response/Health and Safety; Planning

Recommended Evaluation Frequencies: At least once every 8-years
Recommended Assessment Activities: Exercise; Environmental Monitoring Drill (N.4.d)

Planning Reference: NUREG-0654/FEMA-REP-1, Rev. 2 (H.11, H.11.a, H.11.b, H.12, H.13, I.2, I.5, I.6, I.8, M.7, and O.1)

Intent: The capability to report measurements of ambient radiation and collect environmental, food, and drinking water samples for laboratory analyses that support decision-making.

Demonstration and Evaluation Guidance:

1. Maintain and prepare instruments, equipment, and supplies for use, including performing pre-operational checks of radiation survey instruments.
   - Did each FMT perform an operational check on each radiation survey instrument, including a source-response check which is compared to a known range of readings to confirm the instrument can properly measure radiation?
   - Did each FMT obtain a background radiation measurement with each radiation survey instrument before entering the affected area?
2. Use appropriate contamination control and PPE.
   - What sort of contamination controls and PPE was utilized?
3. Execute the sampling plan.
   - Were samples collected consistent with samples specified in the sampling plan?
4. Collect each type of sample necessary to assess the ingestion exposure pathway and to support reentry, relocation, and return decisions. The types of samples necessary are based on the exercise scenario and may include drinking water, soil, vegetation, milk, crops, or other agriculture samples.
   - Which types of samples did FMTs collect?
   - Were samples collected at the locations identified by the field team manager?
   - Did each FMT follow the appropriate procedure for collecting each type of sample?
5. Obtain and record ambient radiation measurements at each sample location and at other locations, as directed.
   - Was an ambient radiation measurement taken at each sample location?
6. Handle sample media to avoid sample cross-contamination and equipment/personnel contamination.
   - Did each FMT properly package each sample?
   - What precautions were taken to prevent cross-contamination of samples?
   - Did each FMT properly document each sample?
   - Was a chain-of-custody record created?
   - Was each sample assigned a unique identification number?
7. Prepare and package samples appropriately (e.g., geometries specific to those used in the processing samples, including sample identification, and chain-of-custody forms) to ensure the integrity of samples throughout transportation and transfer.
   - Did each FMT properly document each sample, including creating a chain-of-custody record? Was each sample assigned a unique identification number?
   - Were samples collected by the ORO at a central location (e.g., sample control point) or delivered directly to the laboratory?

- Did sample control point personnel follow appropriate procedures for receiving samples?
- Were chain-of-custody records properly maintained?
- How were samples transported to the laboratory?
- Were any samples identified as having exposure rates or contamination levels too high to be accepted by a particular laboratory? If so, what was done with those samples?

All activities must be based on the ORO's plans/procedures and completed as they would be in an actual emergency, unless noted above or otherwise specified in the Extent-of-Play Agreement.

State Negotiated Extent of Play:
This sub-element will not be demonstrated during this exercise.

Capability Target 4.4: Laboratory Operations *(Vice Sub-Element: 4.c.1)*

Core Capabilities: Environmental Response/Health and Safety; Planning

Recommended Evaluation Frequencies: At least once every 8-years
Recommended Assessment Activities: Laboratory Drill (N.4.c)

Planning Reference: NUREG-0654/FEMA-REP-1, Rev. 2 (C.4, H.11, H.11.b, H.13, I.2, I.6, M.7, and O.1)

Intent: The capability to perform laboratory analyses of radioactivity in environmental, food, and drinking water samples to support decision-making.

Demonstration and Evaluation Guidance:

1. Prepare analytical equipment for use, including performing calibrations, quality control checks, and background counts, as appropriate.
   - Was the equipment used calibrated using standards traceable to the National Institute of Standards and Technology (NIST) in the appropriate geometries? Were quality control checks and background counts performed in accordance with procedures?
2. Receive and track samples, including completing chain-of-custody records.
   - Did laboratory personnel follow their procedures for receiving samples?
   - Were samples properly documented, including completing chain-of-custody records?
   - How were samples tracked throughout the analysis process?
3. Prepare and process each type of sample necessary to assess the ingestion plume exposure pathway and to support reentry, relocation, and return decisions. The types of samples necessary are based on the exercise scenario and may include drinking water, soil, vegetation, milk, crops, or other agriculture samples.
   - Which types of samples (e.g., air cartridge and filter, soil, vegetation, water, milk, crops, etc.) did the laboratory have the capability to analyze? What samples were processed during the demonstration?
   - Did laboratory personnel follow their procedures for sample preparation? What measures were taken to control contamination?

4. Analyze samples to determine the concentration of each radionuclide in each sample. Minimum detection limits (MDLs) for various radionuclides must be low enough to support ORO decisions.
   - Did the gamma spectroscopy systems use high-purity germanium detectors or another type? Did the software library include the radionuclides expected to be released during a nuclear power plant incident?
   - Did the laboratory have the capability to analyze samples for strontium-90? If so, how long would that analysis take? If not, did the ORO have plans in place to obtain such analysis?
   - What count times were used? Were the MDLs for various radionuclides low enough to support ORO decisions?
   - For food and milk samples, were the MDLs less than the FDA DILs?
   - For soil samples, were the MDLs low enough to support relocation decisions?
   - For drinking water samples, were MDLs lower than the EPA DRLs?
   - Did the laboratory have radiation level or contamination level limits for incoming samples? If so, what happens to samples exceeding those limits?
   - How many samples could the laboratory process in one day and in what order would samples be processed? Did the ORO have a method to identify priority samples?
   - How would samples be stored after counting is completed? What methods would be used to prevent spoilage of perishable samples? Were storage locations shielded or located far enough away to prevent increased radiation levels near the counting equipment?
5. Provide analysis results to the appropriate organization.
   - How were counting results processed and reported to the ORO? Were results reported in appropriate units (e.g., soil sample results reported in units of activity per area, not in units of activity per weight)? Were results decay corrected to the sample collection time or to another time? Were results transmitted electronically or by hard copy?
6. If the laboratory is used to count air samples during the early phase of an incident and prepare, process, and analyze air filters and cartridges, provide analysis results in a timely manner to support ORO decisions.
   - If the laboratory would be used to count air samples during the early phase of an incident, what would be the approximate time from when a sample is collected by FMTs to when the results would be provided to the ORO?

All activities must be based on the ORO's plans/procedures and completed as they would be in an actual emergency, unless noted above or otherwise specified in the Extent-of-Play Agreement.

State Negotiated Extent of Play:
This sub-element will not be evaluated during this exercise.

Capability Target 4.5: Plume Phase Analysis and Dose Assessment *(Vice Sub-Element: 2.b.1)*

Core Capabilities: Environmental Response/Health and Safety; Planning

Recommended Evaluation Frequencies: Biennially
Recommended Assessment Activities: Exercise; Drill

Planning Reference: NUREG-0654/FEMA-REP-1, Rev. 2 (A.3, H.13, I.6, I.8, I.10, K.3, and O.1)

Intent: The capability to collect data, project doses to members of the public and emergency workers and analyze and communicate the results.

Demonstration and Evaluation Guidance:

1. Obtain adequate data to make dose projections.
   - What information was used to make dose projections?
   - Did the information include information/recommendations of the licensee, release data, and meteorological data?
2. Use software and/or other methods (e.g., manual calculations) to make dose projections for members of the public (both TED and thyroid dose) based on plant data.
   - What modeling system was used to make dose projections?
   - Did the ORO demonstrate the capability to use other methods, such as manual calculations?
3. Compare dose projections to members of the public to EPA PAGs.
   - Did the ORO make TED and thyroid dose projections available to members of the public based on information/ recommendations of the licensee, release data, and meteorological data?
   - Did the ORO compare dose projections to EPA PAGs and make PARs?
4. Compare dose projections to the public with those of the licensee and discuss differences greater than a factor of ten with the licensee and explain reasons for the difference.
   - Were differences in dose projection greater than a factor of ten discussed with the licensee? If so, were the differences resolved and considered in the PAR?
5. Make initial PARs based on recommendations of the licensee, release data, meteorological data, and other pertinent information.
   - Were initial PARs based on recommendations from the licensee, release data, meteorological data, and any other pertinent information? If not, what were the initial PARs based on?
6. Promptly communicate PARs to decision-makers.
   - How were PARs communicated to decision-makers?
   - How quickly were PARs communicated to decision-makers?
7. Receive ambient exposure rates from FMTs and compare to model projections.
   - Were ambient exposure rates received from FMTs and compared to modeled exposure rates?
8. Calculate iodine and particulate concentrations from FMT air samples.
   - Did the ORO calculate iodine and particulate concentrations from FMT air sample data?
9. Calculate plume ratios of noble gas, iodine's, and particulates, and compare to model projections.
   - Did the ORO calculate iodine and particulate concentrations from FMT air sample data?
10. Adjust PARs, as necessary, based on analysis of field data.

- Did the ORO adjust PARs based on exposure rates measured by iodine and particulate ratios calculated from air samples collected by FMTs?

11. Calculate an incident-specific correction factor for emergency workers inside the plume exposure pathway EPZ.
    - Did the ORO calculate an incident-specific correction factor for emergency workers inside the plume exposure pathway EPZ?
    - Was the correction factor adjusted for emergency workers inside the plume exposure pathway EPZ based on air sample data collected by FMTs?
    - Was the incident-specific correction factor communicated to emergency workers inside the plume exposure pathway EPZ?

All activities must be based on the ORO's plans/procedures and completed as they would be in an actual emergency, unless noted above or otherwise specified in the Extent-of-Play Agreement.

State Negotiated Extent of Play:
If the scenario has no radiological release, or potential of a radiological release, the decision-making process used to make protective action decisions (PADs) can be addressed through an interview at the CRCC if required.

Capability Target 4.6: Post-Plume Phase Sampling Plan Development and Analysis *(Vice Sub-Element: New)*

Core Capabilities: Environmental Response/Health and Safety; Planning

Recommended Evaluation Frequencies: At least once every 8-years
Recommended Assessment Activities: Exercise; Environmental Monitoring Drill (N.4.d)

Planning Reference: NUREG-0654/FEMA-REP-1, Rev. 2 (A.3, H.13, I.2, I.6, I.8, I.10, J.12, J.14.b, J.14.c, K.3, M.7, M.8, and O.1)

Intent: The capability to identify and prioritize sampling, collect data, determine areas where relocation is recommended, identify food that is contaminated above federally approved limits, and analyze and communicate the results.

Demonstration and Evaluation Guidance:

1. Periodically conduct radiological assessment of public exposure.
    - What methods were used to assess public exposure and at what frequencies?
2. Estimate projected doses in contaminated areas and identify areas where projected doses exceed relocation PAGs.
    - Did the ORO calculate projected doses based on laboratory analyses of soil samples?
    - Did the ORO calculate a DRL for relocation for each area with a homogeneous radionuclide deposition mixture?
    - Were areas exceeding DRLs identified?
3. Develop and modify sampling plan to assess the radiological consequences of a release on the food and drinking water supplies.

- How was the area of interest identified (e.g., depositions footprint)?
- Did the ORO's assessment include an evaluation of the radiological analyses of representative samples of drinking water, food, and other ingestible substances of local interest from potentially impacted areas?
- Did the ORO's assessment include a characterization of the releases from the facility?
- Did the ORO's assessment include the extent of areas potentially impacted by the release?

4. Determine areas to be restricted based on factors such as mix of radionuclides in deposited materials, calculated exposure rates compared to PAGs, and analysis of vegetation and soil samples.
   - How were the boundaries of the deposition determined?
   - If deposition boundaries were determine by projections, how were the projected areas verified (e.g., field measurements, environmental sampling)?
5. Evaluate the radiological analyses of representative samples of drinking water, food, and other ingestible substances of local interest from potentially impacted areas.
   - Were the pre-determined DILs the same as the 1998 FDA DILs? If not what, were the differences? If other than the FDA DILs were used, what rationale was given for other decision criteria?
   - What projected doses were used to recommend protective actions for food, drinking water, and persons being relocated?
6. Compare radiological impacts of analysis on food and water and other representative samples to appropriate ingestion PAGs.
   - Did the ORO demonstrate the capability to obtain sample results from the specified laboratory?
   - Were results reported in appropriate units? (e.g., were soil sample results reported in units of activity per area—not in units of activity per weight?)
   - Were results decay corrected to the sample collection time or to some other time?

All activities must be based on the ORO's plans/procedures and completed as they would be in an actual emergency, unless noted above or otherwise specified in the Extent-of-Play Agreement.

State Negotiated Extent of Play:
This sub-element will not be demonstrated during this exercise.

OBJECTIVE 5 - Operate

Capability Target 5.1: Monitoring, Decontamination, Sheltering, and Registration of Evacuees *(Vice Sub-Element: 6.a.1; 6.c.1)*

Core Capabilities: Operational Coordination; Environmental Response/Health and Safety; Mass Care; Planning

Recommended Evaluation Frequencies: Biennially*
Recommended Assessment Activities: Exercise; Drill

Planning Reference: NUREG-0654/FEMA-REP-1, Rev. 2 (J.11.d, J.13, K.4, and O.1)

Intent: The capability to implement radiological monitoring and decontamination of evacuees, and to identify, register, temporarily shelter, and provide congregate care for evacuees at reception centers.

Demonstration and Evaluation Guidance:

1. Set-up operations.
   - Was the facility set up and operational? Did it include route markings, instrumentation, record keeping, and contamination control measures?
   - Where did monitoring, decontamination, and registration of evacuees occur?
   - How was contamination minimized within the facility? What contamination control provisions were utilized?
   - What supplies were available to set up the facility?
   - What supplies were available to prevent and control spread of contamination?
   - What personal protective supplies were available?
2. Operationally check instruments and equipment.
   - What types of monitoring instruments and equipment were available?
   - Were the instruments current in calibration?
   - Were instruments and equipment operationally checked using an appropriate check source against a known range of reading to verify proper operation?
   - Was an appropriate radioactive check source used to verify proper operational response for each low-range radiation measurement instrument?
   - Were background readings taken?
   - How were background radiation levels established?

Monitoring

1. Attain and sustain the overall monitoring productivity rate per hour needed to monitor 20 percent of the plume exposure pathway EPZ population, including transients, within a 12-hour period at each facility. The monitoring productivity rate per hour is the number of evacuees that can be monitored, per hour, per location, by the total complement of monitors using an appropriate procedure.
   - What is the total population, including transients, of the plume exposure pathway EPZ? What is 20 percent of that figure (the estimate of needed monitoring capability)?
   - What was the time for monitoring sequences for the first six simulated evacuees, per monitoring team (determine percentage)?

- Were evacuees monitored using hand-held survey instruments or portal monitors?
- If portal monitors were used, was a body survey made after triggering the portal monitor using hand-held instrument to locate, quantify, and isolate the exact location of the contamination?
- Where were portal monitors used?
- Was a minimum of six simulated evacuees and one-third of the equipment (at that facility) demonstrated?
- Was the monitoring sequences for these simulated evacuees timed by the evaluators to determine whether the monitoring productivity rate per hour can be met?
- Was the facility able to maintain the rate to monitor 20 percent?
- Based on the demonstration, was the facility able to monitor 20 percent of anticipated evacuees within 12 hours? At this rate, is the facility going to meet the 20 percent goal?

2. Monitor evacuees, service animals, pets, vehicles, and possessions.
   - Was there an adequate number of personnel available to perform monitoring of vehicles and evacuees?
   - What are the provisions for monitoring service animals and pets?
   - What were the provisions for individuals who had completed monitoring (and decontamination, if needed)?
   - What means were used to indicate that evacuees, and their service animals, pets, possessions, and vehicles, have been monitored, cleared, and found to have no contamination or contamination below the trigger/action level indicated (e.g., hand stamp, sticker, bracelet, form, etc.)?
3. Utilize trigger/action levels for determining the need for decontamination.
   - Did monitoring personnel use trigger/action levels to determine the need for decontamination?
   - What trigger or action levels were identified?

Decontamination

1. Decontaminate evacuees, and personal belongings, while limiting the spread of contamination.
   - What provisions were in place to ensure privacy?
   - What is the process for providing modesty garments to evacuees?
   - How was decontamination conducted for small areas of contamination?
   - How were contaminated individuals separated from non-contaminated individuals?
   - How are contaminated clothing and other personal belongings handled?
   - What contamination control procedures were utilized?
   - Were provisions made to collect contaminated waste and to prevent it from increasing the background radiation levels near portal monitors and survey equipment?
   - What is the process to indicate that an individual has been monitored and, if necessary, decontaminated (e.g., hand stamp, sticker, bracelet, form, etc.)?
2. Follow-up with any evacuee(s) who cannot be appropriately decontaminated for assessment; ensure the capability to provide evacuee-referrals.
   - What procedures were used if evacuees could not be adequately decontaminated?
   - What was the follow-up and associated assessment process for those evacuees who could not appropriately be decontaminated?

Vehicles

1. Monitor and decontaminate vehicles.
   - How are vehicles monitored? Were the following monitored: air intake systems, radiator grills, bumpers, wheel wells, tires, and door handles?
   - What procedures were demonstrated for vehicle monitoring?
   - Was at least one vehicle monitored?
   - Was there adequate space for the expected number of vehicles (space must be observed by evaluator)?
   - How are vehicles decontaminated?
   - What contamination control procedures were utilized?
2. Provide adequate, separate space for both contaminated and non-contaminated vehicles.
   - Was there appropriate space for vehicle parking of both contaminated and non-contaminated vehicles?
   - How were non-contaminated vehicles separated from contaminated or not-yet-monitored vehicles?
3. Monitor emergency worker personnel and their equipment and vehicles for contamination.
   - Was there adequate space for evacuee vehicles at the facility?
   - Were there an adequate number of personnel trained to operate monitoring equipment at the facility?
   - What provisions were in place to ensure privacy?
4. Decontaminate evacuee vehicles based on trigger/action levels.
   - What is the action level for determining the need for decontamination of vehicles?
   - What process is used to decontaminate vehicles?
   - What was done when an evacuee's vehicle could not be successfully decontaminated?

Sheltering and Congregate Care

1. Coordinate for incoming evacuees who have been monitored and, if necessary, decontaminated.
   - How was coordination amongst and between congregate care facilities/mass care for those evacuees that have already been monitored and, if necessary, decontaminated?
   - What identifier was used for those evacuees (and where applicable, service animals, pets, and vehicles) who had been monitored, decontaminated as appropriate, and registered?
2. Establish shelter operations.
   - What is the process for determining if evacuees, service animals, and pets had been monitored for contamination, decontaminated as appropriate, and registered before entering the facility?
   - Did the staff check for arriving individual's confirmation of monitoring/decontamination?
   - Did the ORO appropriately plan for the population expected at this location?
3. Congregate care centers and operations in host/support jurisdictions are sufficient to support the expected number of evacuees.
   - What agency (or agencies) is responsible for managing the congregate care center?
   - What is the capacity of the congregate care center?
   - What resources were available for evacuees (real or simulated) arriving at the congregate care center?

Registration

1. Register evacuees.
   - What is the process to register evacuees after they have completed the monitoring and decontamination process?
   - Did the record contain the individual's name, address, results of monitoring, and time of any decontamination needed?
   - What organization(s) registered evacuees upon completion of monitoring and decontamination?
   - What is the process for registering evacuees?
   - Was a registration record established for each individual?
2. Ensure the registration area is clean and controlled.
   - Was the access to the clean registration area controlled adequately? How?

All activities must be based on the ORO's plans/procedures and completed as they would be in an actual emergency, unless noted above or otherwise specified in the Extent-of-Play Agreement.

*Exercise participation may be rotated among facilities, but each facility designated in the plan must be evaluated no less than once every eight years.

State Negotiated Extent of Play:
Radiological monitoring demonstration sites should possess a roster of the monitoring personnel required to process the population allocated to the facility within a 12-hour period. *Water from decontamination activities may go directly to a storm drain or other sewer or drain system or area normally designated for wastewater that has been used for bathing or washing of vehicles and or equipment.* ***Use of water during evaluations is optional and weather dependent for outside activities/events.*** *Radiological monitoring of the public may be co-located at either reception centers or mass care centers depending on the county plan.* ***At each reception center (stand-alone – non-mon/decon activity sites)*** *a minimum of three volunteer evacuees will be processed, briefed, issued the appropriate strip map or directions, and instructed to proceed to a mass care center designated for demonstration of monitoring, decontamination, and registration. A sample of the appropriate strip maps or directions will be made available for the demonstration. Note: Co-located facilities do not require strip maps or written directions.* ***Mass care centers and mass care monitoring/Decontamination Stations*** *will be demonstrated per Attachment A during the out-of-sequence window. The counties will provide space at designated mass care centers for operation of monitoring/Decontamination Stations. Schematics of these monitoring/Decontamination Stations will be available to show the organization and layout within the facility and space management for monitoring and decontamination. Procedures will be demonstrated to show the separation of contaminated and non-contaminated (clean) individuals to minimize cross contamination.* ***At the evacuee monitoring/Decontamination Stations (if using hand-held meters),*** *a minimum of six (6) volunteer evacuees will be monitored (or one volunteer evacuee may be monitored six times).* ***Centers using portal monitors are also required to demonstrate*** *a minimum of six (6) volunteer evacuees, or one volunteer evacuee may be monitored six times. Suitable radiological monitoring instruments will be issued to and demonstrated by the initial monitoring team(s). A monitoring team*

consists of one monitor and one recorder equipped with one survey instrument. Those individuals found to be free of "contamination", based upon scenario injects, will be directed to the mass care registration point for further processing. ***Note:*** *Actual radiological sources will not be attached to or hidden upon the volunteer evacuees.*

One of the simulated evacuees, based upon controller injects, will not be able to be decontaminated. Discussions concerning the processing of contaminated personnel will include capabilities and written procedures for showering females separate from males. Showering will be simulated; water will not be used. ***Note: If portal monitors are used, see below.***

At the <u>emergency worker monitoring/decontamination stations,</u> *two (2) emergency workers will be monitored or one emergency worker may be monitored two times. Discussions concerning processing of contaminated personnel will include capabilities and written procedures for showering females separate from males. Showering will be simulated; water will not be used. Suitable radiological monitoring instruments will be issued to the initial monitoring team.* ***Note: If portal monitors are used, the Portal Monitor Extent-of-Play described below shall be used.***

<u>Portal Monitor Use:</u> *Risk and Support counties may, during this exercise, utilize portal monitors to monitor simulated evacuees and/or emergency workers. The monitoring/decontamination team requirements will be based on the portal monitor capabilities as applicable based on the procedure/guidelines, and the recommendations of the manufacturer.* ***Note:*** *PEMA Interim Annex E letter, April 2009 or superseding document shall apply.*

Monitoring/Decontamination Stations and Emergency Worker monitoring and decontamination station personnel are not issued DRDs or KI since the centers and stations are outside the EPZ. Category "C" Dosimetry applies. Simulated permanent record dosimeters (PRDs) will be worn.

Radiation readings/contamination data for the evacuees and vehicle will be provided by the controller as appropriate based upon information contained in the scenario package. Set-up of the facility will be performed the same as for an actual emergency with all route markings and contamination control measures in place including step-off pad (if used). Long runs of plastic covered with paper will not be demonstrated, but the materials may be available and explained (as appropriate). Positioning of a fire apparatus on-site may be simulated if otherwise required.
Counties demonstrating the operation of mass care centers during the out-of-sequence window (Allegheny, Butler, Lawrence, and Washington Counties) will provide floor plans of the mass care centers to show organization within the facility and space management during a real emergency. Mass care center locations are listed in the demonstration tables "Demonstration of Mass Care Centers (Attachment A, Section I.4).

Personnel, at a minimum, will consist of one manager and one assistant for each mass care center opened during the out-of-sequence window. The responsible American Red Cross chapter will show the source and quantities, by job functional description, to be provided to mass care centers to support the 24-hour operation. The responsible Red Cross Chapter(s) will be visited, or telephonically contacted during business hours on ***May 14 & 16, 2024****, by an exercise evaluator, or interviewed at the mass care center (as appropriate) during the out-of-sequence evaluation to provide information regarding the 24-hour operation. Schematics of these mass care centers will be available, during the demonstration window, to show organization within the facility and space allocation for the registration and sheltering the evacuating public. Necessary signs, directional arrows and forms will be available and used to <u>demonstrate registration, at a minimum, of three evacuees</u> requiring emergency housing. Evacuees will be shown the location where they would be housed in an actual situation. Bedding, cots, food, etc. normally associated with mass care will not be moved to the site, but the sources of those items should be explained to FEMA evaluators.*

This out-of-sequence demonstration window will be on May 14 & 16, 2024 from 6:00 p.m. – 9:30 p.m.

** Re-demonstrations may be performed as appropriate and time permitting.*

Those facilities identified for the FEMA walk-down evaluations will be supported by a participating representative from the appropriate Red Cross Chapter(s). An interview process will be conducted to determine facility compliance of the above stated requirements.

Note: The American Red Cross will do additional Reception Center Training during the out of sequence evaluation for their personnel, these actions and training are not for evaluation.

AMERICAN RED CROSS CHAPTERS
POINTS OF CONTACT AS FOLLOW:

American Red Cross
Western PA Region
2801 Liberty Avenue
Pittsburgh, Pennsylvania 15222

POC: Walt Jennings
Work: 412-263-3100
Cell: 412-217-2817

Capability Target 5.2: Monitoring and Decontamination of Emergency Workers, Equipment, and Vehicles *(Vice Sub-Element: 6.b.1*)

Core Capabilities: Operational Coordination; Environmental Response/Health and Safety; Planning

Recommended Evaluation Frequencies: Biennially
Recommended Assessment Activities: Exercise; Drill

Planning Reference: NUREG-0654/FEMA-REP-1, Rev. 2 (K.4 and O.1)

Intent: The capability to implement radiological monitoring and decontamination of emergency workers, equipment, and vehicles.

Demonstration and Evaluation Guidance:

1. Set-up operations.
   - Where will monitoring and decontamination of emergency workers occur?
   - Where will emergency workers' equipment be monitored and decontaminated?
   - Was the facility set up and operational? Did it include route markings, instrumentation, record keeping, and contamination control measures?
   - What supplies were available to set up the facility?
   - What supplies were available to prevent and control spread of contamination?
   - What personal protective supplies were available?
   - How was contamination minimized within the facility?
   - What contamination control provisions were utilized?
2. Operationally check instruments and equipment.
   - Were the instruments current in calibration?
   - Were instruments and equipment operationally checked using an appropriate check source against a known range of reading to verify proper operation?

- Was an appropriate radioactive check source used to verify proper operational response for each low-range radiation measurement instrument?
- Were background readings taken?
- How were background radiation levels established?

3. Monitor emergency worker personnel and their equipment and vehicles for contamination.
   - Was there adequate space for emergency workers at the facility?
   - Were there an adequate number of personnel trained to operate monitoring equipment at the facility?
   - During vehicle monitoring, were the following monitored: air intake systems, radiator grills, bumpers, wheel wells, tires, and door handles?
   - What provisions were in place to ensure privacy?
4. Decontaminate emergency worker personnel and their equipment and vehicles based on trigger/action levels.
   - What is the action level for determining the need for decontamination of personnel, equipment, and vehicles?
   - What process is used to decontaminate personnel, equipment, and vehicles?
   - How was decontamination conducted for small areas of contamination?
   - What was done when an emergency worker could not be successfully decontaminated?
5. Control the spread of contamination.
   - What procedures are used to minimize contamination within the facility?
   - How are contaminated emergency workers separated from non-contaminated emergency workers?
   - How are contaminated clothing and other personal belongings addressed? Will clean clothing be provided to emergency workers?
   - Were contamination control procedures, including storage of contaminated clothing and possessions followed?
6. Create and maintain a record of monitoring and decontaminating workers upon completion of monitoring and decontamination activities.
   - Was a record of monitoring and decontamination (if necessary) kept for each emergency worker?
7. Process for prioritizing emergency workers and equipment before the public in facilities where the public and emergency workers are both processed for contamination.
   - What is the process for prioritizing emergency workers and equipment before the public in facilities where the public and emergency workers are both processed for contamination?

All activities must be based on the ORO's plans/procedures and completed as they would be in an actual emergency, unless noted above or otherwise specified in the Extent-of-Play Agreement.

*Exercise participation may be rotated among facilities, but each facility designated in the plan must be evaluated no less than once every eight years.

State Negotiated Extent of Play:
Emergency worker station personnel will consist of a minimum of one monitor and one recorder and sufficient personnel to demonstrate monitoring of at least one vehicle. Schematics of these monitoring/decontamination stations will be available to show organization and space

management within the facility. The evaluator will request that decontamination procedures be explained after the vehicle which has simulated contamination has been monitored. One radiological survey meter will be issued to each monitoring/decontamination team. One vehicle and/or piece of equipment will not be able to be decontaminated. Simulated radiation contamination data will be included in the scenario package, and injected by a controller. Set-up of the facility will be performed as closely as possible to that for an actual emergency with all route markings in place including clearly defined exit areas, per contamination control procedures and/or step-off pads (if used); with the exception of long runs of plastic covered with paper which will not be demonstrated, but the materials may be available and explained (as appropriate.).

Decontamination capabilities, and provisions for vehicles and equipment that cannot be decontaminated, will be simulated, and conducted by interview. ***Use of water during evaluations is optional and weather dependent for outside activities/events.***

Note: *Re-demonstrations may be performed as appropriate and time permitting.*

Capability Target 5.3: Transportation and Treatment of Contaminated, Injured Individuals *(Vice Sub-Element: 6.d.1)*

Core Capabilities: Environmental Response/Health and Safety; Public Health, Healthcare, Emergency Medical Services; Planning

Recommended Evaluation Frequencies: Biennially
Recommended Assessment Activities: Medical Services Drill (N.4.b)

Planning Reference: NUREG-0654/FEMA-REP-1, Rev. 2 (C.2.d, F.2, H.11, H.12, J.2, K.3, K.4, L.1, L.3, L.4, and O.1)

Intent: The capability to provide medical transport and treatment services to contaminated, injured individuals.

Demonstration and Evaluation Guidance:

Transportation

1. Transport contaminated, injured individuals to medical facilities.
   - Who dispatched the medical transport provider and what information was provided?
   - Did the appropriate briefings occur? What was contained in the briefings?
   - Which agency or agencies demonstrated the transportation of contaminated, injured individuals to appropriate medical facilities?
   - What type of vehicle was used for the transportation of the contaminated, injured individuals?
   - Was the site of pick-up in a potentially contaminated area? If so, what precautions were taken?
   - How did the medical transport provider know to take radiological precautions with the contaminated, injured individual?
   - Was the contaminated, injured individual monitored for radiological contamination before arrival or during initial evaluation by the transport provider?
   - Who did the monitoring?
   - What survey instruments were used?

- Were the instruments current in calibration?
- Did medical care take priority over monitoring?
- Were instruments and equipment operationally checked using an appropriate check source against a known range of reading to verify proper operation?
- What contamination control measures were taken by the medical transport crew?
- How was the patient transferred from the medical transport vehicle to the medical facility?
- Were accident scene survey records transferred to the medical facility staff? Was the transfer made taking care not to spread contamination?
- Was the medical transport crew knowledgeable about where the medical transport vehicle (or other transport vehicle) and crew would be monitored and decontaminated?
- Where and by whom will the medical transport crew and medical transport vehicle (or other transport vehicle) be monitored and decontaminated, if required?

2. Maintain communications between the medical transportation provider and the receiving medical facility.
   - What communications occurred between the medical transport crew and the receiving hospital? How?

Medical Facility

1. Operationally check instruments and equipment.
   - How were background measurements obtained on a continuous basis?
   - What survey instruments were used?
   - Were the instruments current in calibration?
   - Were instruments and equipment operationally checked using an appropriate check source against a known range of reading to verify proper operation?
   - Was an appropriate radioactive check source used to verify proper operational response for each low-range radiation measurement instrument?
   - Did the receiving facility personnel don the appropriate PPE in accordance with procedures and in a manner to prevent the spread of contamination?
2. Set-up, activate, and operate an REA.
   - How was the hospital notified to establish a REA? With regard to the REA, what information was provided to the medical facility by the medical transport crew?
   - Were staff, equipment, and supplies readily available for monitoring and decontamination, and setting up the REA?
   - How was access into the REA controlled?
   - Did urgent medical care take precedence over monitoring, decontamination, and contamination control efforts by facility medical staff?
   - Who performed and/or supervised treatment of contaminated, injured individuals?
   - What equipment and supplies were available for treatment of contaminated, injured individuals?
   - How were items assured to be free of contamination before they were transferred out of the REA to the clean area?
   - After treatment and decontamination, how was the individual transferred out of the REA?
   - How did the staff exit the REA?
   - Was a doffing procedure correctly implemented?
   - Was the REA, and equipment within, monitored for contamination prior to returning it to normal operations?

3. Monitor and decontaminate the individual, equipment, and other items.
    - How were monitoring (i.e., survey measurements and samples) results documented and recorded?
    - Did the medical staff make decisions on the need for decontamination of the individual and follow appropriate decontamination procedures?
    - What contamination threshold triggers the need for decontamination of the individual?
    - What methods were used to decontaminate the potentially contaminated individual (once that person is medically stabilized)? Were decontamination methods progressive (e.g., mild decontamination used prior to scrubbing)?
    - What procedure was used if decontamination was not successful?
    - What methods were used to collect and analyze samples, including swabs and skin wipes?
    - Who did the monitoring? What equipment was used?
    - What records were maintained with regard to survey and decontamination?
    - What was the procedure for handling, decontaminating, and storage of contaminated items?
    - What was the action level to determine if equipment was contaminated or not?
    - Who decontaminated the equipment and other items?
    - How was waste water from decontamination operations handled?
    - What contamination control measures were taken?

All activities must be based on the ORO's plans/procedures and completed as they would be in an actual emergency, unless noted above or otherwise specified in the Extent-of-Play Agreement.

State Negotiated Extent of Play:
This sub-element was evaluated at Washington Hospital on March 30, 2023 and UPMC Jameson Hospital on September 21, 2023.

Capability Target 5.4: Traffic and Access Control *(Vice Sub-Element: 3.d.1; 3.d.2)*

Core Capabilities: Critical Transportation; Access Control/Identity Verification; Environmental Response/Health and Safety; On-Scene Security, Protection, and Law Enforcement; Operational Coordination; Planning; Situational Assessment.

Recommended Evaluation Frequencies: Biennially
Recommended Assessment Activities: Exercise; Drill

Planning Reference: NUREG-0654/FEMA-REP-1, Rev. 2 (H.12, J.8, J.8.b, J.10, J.10.a, J.11.c, J.11.e, J.11.f, J.14.d, J.14.e, M.1.b, and O.1)

Intent: The capability to select, establish, and staff traffic and access control points and removing impediments to the flow of evacuation traffic.

Demonstration and Evaluation Guidance:

1. Select, establish, and staff appropriate TCP/ACPs, consistent with current conditions and PADs (e.g., evacuating, sheltering, and relocation), in a timely manner.
   - Were there pre-identified TCPs/ACPs in the plan?
   - What was the basis for determining the location of TCPs/ACPs (e.g., evacuation of area, danger in area, etc.)?
   - At what ECL were TCPs/ACPs established?
   - Who was responsible for establishing traffic routes and/or TCPs/ACPs?
   - Who deployed TCP/ACP personnel to the assigned location?
   - Were necessary resources available when needed?
   - Were there any gaps identified between the TCP/ACP resources needed and the resources available? If so, what alternate resource providers were identified and resources provided?
   - Were TCPs/ACPs identified, staffed, and established in timely manner?
2. Provide instructions to TAC staff on actions to take, including when modifications in protective action strategies necessitate changes in evacuation patterns or in the area(s) where access is controlled.
   - Did the TCP/ACP staff receive an emergency worker briefing? If so, what did the briefing include?
   - When PADs expanded into the affected area, were TAC personnel relocated?
   - Were instructions provided to TCP/ACP staff on the modification of PADs?
   - Were TCP/ACP personnel able to provide the following information:
     - Location of TCPs/ACPs.
     - Location of reception/registration centers.
     - Location of emergency worker monitoring and Decontamination Station.
     - Equipment available (e.g., cones) to establish TCPs/ACPs.
     - The means used to verify emergency worker identification and access.
     - Their roles and responsibilities.
   - What plans/procedures were in place for verifying emergency worker identification and access authorization?

3. Contact the state or Federal agencies that have the authority for the different transportation modes (e.g., rail, water, and air traffic).
   - Who notified which agency for control of water, rail, and air traffic?
   - Were times and ECLs documented when rail, water, and air traffic access control were notified by the ORO?
   - What actions were requested? How were actions coordinated?
4. Identify and take appropriate actions concerning impediments that affect the evacuation and evacuation routes.
   - Were there impediments to evacuation? If so, where did the impediment occur on the evacuation route? Was the impediment on the evacuation route left in place for the remainder of the demonstration or was it removed?
   - Were appropriate actions for impediments that affected evacuation routes identified?
   - How were the resources to remove impediments to evacuation identified and coordinated? Was this done in a timely manner? What organizations assisted in impediment removal?
5. Make the decision to re-route traffic and coordinate with key decision-makers and the JIC to ensure the alternate route information is appropriately communicated to evacuees.
   - What key decision-makers were involved in the coordinated effort to re-route traffic?
   - Who made the decision to re-route traffic?

- What coordination occurred among various OROs, such as local law enforcement, state law enforcement, National Guard, and/or state and/or local transportation departments?
- What coordination occurred to alert the public of the need to take an alternate route?
- How and when was the public alerted to take an alternate route?
- Were decisions made in coordination with all agencies (both internal and external) involved?
- Was the messaging coordinated and consistent?

6. Establish procedures to control access to and monitor people and vehicles from the evacuated and restricted areas.
   - How did the ORO determine location of ACPs?
   - How was the area identified (e.g., ropes, fences, gates, etc.)?
   - What did the ORO do to control access to the restricted areas?
   - Which agencies have the responsibility to establish procedures to control access to evacuated and restricted areas?
7. Authorize reentry of individuals into the restricted areas.
   - What was the process to approve individuals to reenter the restricted areas?
   - How were individuals authorized to reenter the restricted areas?
   - What provisions were made to determine and control their exposure?
   - How were these individuals tracked to ensure they returned out of the restricted areas?
8. Establish exit procedures.
   - How were individuals, vehicles, and equipment monitored?
   - What was the decision-making guidance for decontamination?
   - What was the disposition of dosimeters, maintenance of the reentry radiation exposure records of dosimetry, and maintenance of emergency worker radiation exposure records?

All activities must be based on the ORO's plans/procedures and completed as they would be in an actual emergency, unless noted above or otherwise specified in the Extent-of-Play Agreement.

State Negotiated Extent of Play:
Municipal traffic and access control will be demonstrated by interview at the applicable EOC of jurisdiction. The traffic/access control personnel will not be deployed to the traffic/access control point(s). If the designated assignment is a location within the EPZ, a radiological briefing will be provided to the assigned individuals. *OROs should 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, such as tow trucks, need not be demonstrated; however, simulated contacts will be logged. If the scenario does not lead to evacuation the criteria shall be deemed complete if the ORO can describe to the evaluator <u>through controller inject or interview</u> the actions 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. Risk counties will receive the inject only.*

ATTACHMENT A

2024 BEAVER VALLEY POWER STATION

EXTENT-OF-PLAY DEMONSTRATION TABLES

I. Out-of-Sequence Events

Activities – Tuesday, May 14 & 16, 2024

1. School Districts

Time: 9:00 a.m. – 11:00 a.m.

FEMA Evaluated – Risk Public School District Administration Offices and schools located within the EPZ.

PEMA Observed – Risk Public School District Administration Offices and schools located outside the EPZ with students living within the EPZ.

NOTE – If a Risk Public School District Administration Office is outside of the EPZ but has schools inside the EPZ, they will be evaluated by FEMA.

Each identified District Administration Office will be evaluated. When a school system is comprised of multiple buildings (High School, Middle School, Elementary School), the affected buildings (those with students from the EPZ) will be evaluated on a rotational basis to coincide with the eight-year exercise cycle.

County	School District	School
Beaver	Aliquippa	Aliquippa Elementary
	Beaver Area	Beaver Area Middle School
	Blackhawk	Blackhawk Intermediate
	Central Valley	Center Grange Primary School
	Hopewell	Margaret Ross Elementary

	Midland	Lincoln Park Performing Arts Charter School
	South Side Area	South Side High
	Western Beaver	Western Beaver Jr/Sr. High
	New Brighton	See Note below
	Ambridge	See Note below

NOTE: New Brighton and Ambridge School Districts do not have schools within the EPZ. They do have students attending their schools who reside in the EPZ. Procedures for holding those students at their respective schools until picked up by parents or guardians will be explained by the district superintendent or representative through phone interview. As procedures are the same district wide there will be no need to visit individual schools for evaluation.

2. Reception Centers

3. Monitoring/Decontamination Stations

RECEPTION CENTER LOCATIONS			
COUNTY	**LOCATION**	**DATE**	**TIME**
Allegheny	South Park Museum Building	May 14, 2024	7:00 p.m. – 9:30 p.m.
Lawrence	Mohawk Area High School	May 14, 2024	6:30 p.m. – 9:00 p.m.
Butler	Slippery Rock High School	May 16, 2024	6:00 p.m. – 8:30 p.m.
Washington	Washington County Fairgrounds	May 16, 2024	6:00 p.m. – 8:30 p.m.

EVACUEE MONITORING/DECONTAMINATION STATIONS			
COUNTY	**LOCATION**	**DATE**	**TIME**
Allegheny	South Park Museum Building	May 14, 2024	7:00 p.m. – 9:30 p.m.
Lawrence	Mohawk High School	May 14, 2024	6:30 p.m. – 9:00 p.m.
Butler	Slippery Rock High School	May 16, 2024	6:00 p.m. – 8:30 p.m.
Washington	Trinity High School	May 16, 2024	6:00 p.m. – 8:30 p.m.

4. Mass Care Centers

MASS CARE CENTERS			
COUNTY	**LOCATION**	**DATE**	**TIME**
Allegheny	South Park High School	May 14, 2024	7:00 p.m. – 9:30 p.m.
Lawrence	Mohawk High School	May 14, 2024	6:00 p.m. – 8:30 p.m.
Butler	Slippery Rock High School	May 16, 2024	6:30 p.m. – 9:00 p.m.
Washington	Trinity High School	May 16, 2024	6:00 p.m. – 8:30 p.m.

NOTE: The following actions will take place at the designated counties:

Allegheny – reception, mon/decon (personnel and vehicle) and mass care demonstrations will take place at South Park. Allegheny Mass Care location is separate from their Mon/Decon location and will be demonstrated by walkdown during the 8-year cycle.

Butler – reception and driving directions will be demonstrated at Slippery Rock High School . Mon/Decon (personnel and vehicle) and mass care demonstrations will take place at Slippery Rock High School.

Lawrence – reception and mon/decon (personnel and vehicle) demonstrations will take place at Mohawk High School. Mass care demonstrations will take place at Mohawk High School.

Washington – reception and driving directions will be demonstrated at the Washington County Fairgrounds. Personnel and vehicle Mon/Decon and mass care will be demonstrated at Trinity High School.

Activities – Tuesday, May 14, 2024

5. Emergency Worker Monitoring/Decontamination Stations

EMERGENCY WORKER MONITORING/DECONTAMINATION STATION			
COUNTY	**LOCATION**	**DATE**	**TIME**
Beaver	Crescent Fire Department	May 14, 2024	6:00 p.m. – 8:30 p.m.

II. Plume Phase Exercise

Activities – Tuesday, June 11, 2024

1. County Emergency Operations Centers (EOCs)

Time: Per Scenario

DEMONSTRATION FOR EOC MOBILIZATION FOR COUNTIES		
COUNTY	**DATE**	**TIME**
Beaver	June 11, 2024	Exercise Scenario
Allegheny		
Butler		
Lawrence		
Washington		

2. BRP field teams will be **EVALUATED** at 400 Waterfront Drive, Pittsburgh, PA 15222 on Tuesday, June 11, 2024 at 1:30 p.m.

3. Municipal Emergency Operations Centers (EOC)

Time: Per Scenario

DEMONSTRATION FOR EOC MOBILIZATION FOR MUNICIPALITIES		
RISK COUNTY	**MUNICIPALITY**	**DATE**
Beaver	City of Aliquippa	June 11, 2024
	Beaver Borough/Bridgewater/Vanport Township*	
	Brighton Township	
	Chippewa/Ohioville/Glasgow/South Beaver/Patterson Heights/Patterson Township*	
	Fallston Borough	
	Frankfort Springs/Hanover/Independence Georgetown/Greene/Hookstown*	
	Hopewell Township	
	Industry/Midland*	
	Monaca/Center Township	
	Potter/Raccoon Township/Shippingport*	
	South Heights Borough	

NOTE: asterisked locations are combined EOCs.

4. Public Alert Notification demonstration this year.

COUNTY	RISK MUNICIPALITY	TIME
Beaver	**Evaluated using IPAWS**	Exercise Scenario

5. Traffic and Access Control Points

a. The Pennsylvania State Police will brief at **the PSP Beaver Barracks, 3800 Dutch Ridge Road, Beaver, Pennsylvania 15009**. Those attending the briefing will NOT actually deploy to the TCP/ACPs.

b. The PSP briefing will be performed out-of-sequence in a demonstration window of **1:00 p.m. until 3:00 p.m. on June 11, 2024.**

c. Each municipal/regional police force with a TCP assigned in its plan will demonstrate all preparation duties including TCP responsibilities and radiological briefing. Dispatch of persons to the TCP site will not occur during the exercise.

d. Municipal and county staffs will be prepared to brief the FEMA evaluator on actions to be taken should there be an impediment to evacuation on a designated evacuation route.

MUNICIPAL/REGIONAL POLICE FORCES	
COUNTY	**POLICE FORCE**
Beaver	Beaver Bridgewater Center Monaca Patterson Heights New Brighton (Fallston EOC) Raccoon Shippingport

Appendix A: Participating Agencies and Site Maps

See PEMA Extent of Play in Appendix B.

Appendix B: Directions/Addresses

See Action Location Addresses Document provided by the Utility.

Appendix C: Open Issues

No Open Issues

Appendix D: Acronyms

Acronym	Description
AAC	Accident Assessment Center
AAM	After-Action Meeting
AAR	After-Action Report
ACP	Access Control Point
ALARA	As Low As Reasonably Achievable
ALC	Annual Letter of Certification
ANS	Alert and Notification System
ANSI	American National Standards Institute
ARC	American Red Cross
ARES	Amateur Radio Emergency Services
A-Team	Advisory Team for Environment, Food, and Health
BRP	Bureau of Radiation Protection
BURA	Back Up Route Alerting
BVPS	Beaver Valley Power Station
BZ	Buffer Zone
CAD	Computer Aided Display
C/E	Controller and Evaluator
CED	Committed Effective Dose
CC	Core Capabilties
CCC	Congregate Care Center
CDC	U.S. Center for Disease Control and Prevention
CCL	Core Capabilities List
C/E	Controller Evaluator
CDE	Committed Dose Equivalent
CDV	Civil Defense Victoreen
CERC	Corporate Emergency Response Center
CERT	Community Emergency Response Team
CFR	Code of Federal Regulations
CNS	Commonwealth Notification System
C&O	Concepts and Objectives Meeting
CO	Communication Officer
COL	Combined Operating License
CPG	Comprehensive Preparedness Guide
CPM	Counts Per Minute
CRCC	Commonwealth Response Coordination Center
CST	Civil Support Team
DAC	Dose Assessment Coordinator
DAD	Digital Alarming Dosimetry
DAS	Director of Auxillary Services
DCPM	Disintegrating Counts Per Minute
DDHS	U.S. Department of Health and Human Services
DEMA	Delaware Emergency Management Agency
DHS	U.S. Department of Homeland Security
DIL	Derived Intervention Level
DIR	Disaster Initiated Review
DOE	U.S. Department of Energy
DOT	U.S. Department of Transportation

DRD	Direct Reading Dosimeter
DRF	Dosimetry Record Form
DRL	Derived Response Level
DSP	Delaware State Police
EA	Exception Area
EA	Exclusion Area
EA	External Affairs
EAC	Evacuation Assembly Center
EAL	Emergency Action Level
EARA	Exception Area Route Alerting
EAS	Emergency Alert System
EC	Emergency Coordinator
EEG	Exercise Evaluation Guide
ECL	Emergency Classification Level
ECO	Exposure Control Officer
EDE	Effective Dose Equivalent
EMC	Emergency Management Coordinator
EMD	Emergency Management Director
EMnet	Emergency Management Network
EMS	Emergency Medical Services
ENS	Emergency Notification System
EOC	Emergency Operations Center
EOF	Emergency Operations Facility
EOP	Extent of Play
EPA	U.S. Environmental Protection Agency
EPT	Exercise Planning Team
EPZ	Emergency Planning Zone
ER	Emergency Room
ERDS	Emergency Response Data System
ERM	Emergency Response Manager
ERO	Emergency Response Organization
ERV	Emergency Response Vehicle
ESC	Emergency Services Coordinator
ESF	Emergency Support Function
ESP	Early Site Permit
ETA	Estimated Time of Arrival
ETE	Evacuation Time Estimate
EW	Emergency Workers
EWMDS	Emergency Worker Monitoring and Decontamination Station
ExPlan	Exercise Plan
FBI	Federal Bureau of Investigation
FCC	U.S. Federal Communications Commission
FD	Fire Department
FDA	U.S. Food and Drug Administration
FE	Functional Exerise
FEMA	Federal Emergency Management Agency
FMT	Field Monitoring Team
FPE	Full Participation Exercise
FPM	Final Planning Meeting
FRMAC	Federal Radiological Monitoring Assessment Center
FRPCC	Federal Radiological Preparedness Coordinating Committee
FSE	Full Scale Exercise

FST	Field Sampling Team
FTC	Field Team Coordinator
GE	General Emergency
GIS	Geographic Information Systems
GM	Guidance Memorandum
G-M	Geiger-Mueller
GPS	Global Positioning System
Gy	Gray
HAB	Hostile Action Based
HAN	Health Alert Network
HHS	U.S. Health and Human Services
HazMat	Hazardous Materials
HF	High Frequency
HP	Health Physicist
HSEEP	Homeland Security Exercise and Evaluation Program
HSPD	Homeland Security Presidential Directive
IC	Incident Commander
ICP	Incident Command Post
ICS	Incident Command System
IP	Improvement Plan
IPAWS	Integrated Public Alert and Warning System
IPM	Initial Planning Meeting
IPZ	Ingestion Pathway Zone
IWP	Initial Warning Point
JIC	Joint Information Center
JIS	Joint Information System
KI	Potassium Iodide
LCD	Liquid Crystal Display
LEOF	Local Emergency Operations Facility
LHD	Local Health Department
LOA	Letter of Agreement
MCC	Mass Care Center
MDDT	Mobile Data Display Terminal
MDT	Mobile Data Terminals
MJOC	Media Joint Operations Center
MHz	Megahertz
MIDAS	Meteorological Information Dose Assessment System
MOU	Memorandum of Understanding
MS-1	Medical Services Hospital
MSEL	Master Scenario Events List
NAWAS	National Warning System
NEP	National Exercise Program
NGO	Non-Governmental Organization
NIMS	National Incident Management System
NNSA	National Nuclear Security Administration
NOAA	National Oceanic and Atmospheric Administration
NPD	National Preparedness Directorate
NOUE	Notification of Unusual Event
NPP	Nuclear Power Plant
NPS	National Preparedness System
NRC	U.S. Nuclear Regulatory Commission
NRIA	Nuclear Radiological Incident Annex
NUREG	Nuclear Regulatory

NWS	National Weather Service
OCA	Owner Controlled Area
OJT	On-The-Job Training
OOS	Out of Sequence
ORH	Office of Radiological Health
ORO	Offsite Response Organization
OSC	Operations Support Center
OSD	Optically Stimulated Dosimeter
OSHA	U.S. Occupational Safety and Health Administration
OSLD	Optically Stimulated Luminescence Dosimeter
PA	Public Affairs
PAD	Protective Action Decision
PAG	Protective Action Guideline
PAR	Protective Action Recommendation
PARA	Primary Area Route Alerting
PAZ	Protective Action Zone
PCA	Preliminary Capabilities Assessment
PD	Police Department
PDAFN	Persons with Disabilities/Access and Funtional Needs
PED	Personal Electronic Dosimeter
PEMA	Pennsylvania Emergency Management Agency
PII	Personally Identifiable Information
PIO	Public Information Officer
PPD	Presidential Policy Directive
PPE	Personal Protective Equipment
PPP	Post-Plume Phase
PRA	Primary Route Alerting
PRD	Permanent Record Dosimeter
PS	Planning Standard
PSP	Pennsylvania State Police
R	Roentgen
RA	Regional Administrator
R/h	Roentgen per hour
RAC	Regional Assistance Committee
RACES	Radio Amateur Civil Emergency Services
RAD	Radiation Absorbed Dose
RAO	Radiation Assessment Officer
RC	Reception Center or Relocation Center
RDO	Radiation Defense Officer
REA	Radiation Emergency Area
REC	Radiation Exposure Control
REM	Roentgen Equivalent Man (rem)
REP	Radiological Emergency Plan
REPP	Radiological Emergency Preparedness Program
RERP	Radiological Emergency Response Plan
RHP	Radiological Health Program
RML	Radiological Mobile Laboratory
RO	Radiological Officer
ROO	Radiological Operations Officer
RPM	Radiological Emergency Preparedness Program Manual
RSO	Radiation Safety Oficer
RTF	Radiological Task Force
SA	Staging Area

SAC	Staging Area Coordinator
SAE	Site Area Emergency
SAIC	Science Applications International Corporation
SAM	Staging Area Manager
SAV	Staff Assistance Visit
SCBA	Self-Contained Breathing Apparatus
SEOC	State Emergency Operations Center
SERS	State Emergency Radio System
SEVAN	State Emergency Voice Activation Network
SFMT	State Field Monitoring Team
SHC	Salem Hope Creek
SIP	Shelter In Place
SIRS	Statewide Interoperability Radio System
SME	Subject Matter Expert
SO	State Official
SOP	Standard Operating Procedure
SPS	Surry Power Station
SRO	School Resources Officer
SSES	Susquehanna Steam Electric Station
SSO	Social Services Officer
STARS	Statewide Area Radio System
Sv	Sievert (sv)
SWAN	State Warning Alert Notification
TAC	Technical Assistance Center
TACP	Traffic and Access Control Point
TCP	Traffic Control Point
TED	Total Effective Dose (whole body dose)
TEDE	Total Effective Dose Equivalent
TEP	Training and Exercise Plan
TEPW	Training and Exercise Planning Workshop
THD	Technological Hazards Division
THIRA	Threat and Hazard Identification and Risk Assessment
TLD	Thermoluminescent Dosimeter
TMI	Three Mile Island
TO	Transportation Officer
TSC	Technical Support Center
TTD/TTY	Telecommunication Device for the Deaf/TeleType
TTX	Tabletop Exercise
UEM	Utility Emergency Manager
USDA	U.S. Department of Agriculture
UTL	Universal Task List
VDEM	Virginia Department of Emergency Management
VDH	Virginia Department of Health
VDOT	Virginia Department of Transportation
VEOC	Virginia Emergency Operations Center
VERT	Virginia Emergency Response Team
VEST	Virginia Emergency Support Team
VHF	Very High Frequency
VMS	Variable Message Sign
VSP	Virginia State Police
VOAD	Voluntary Organizations Active in Disaster
VOIP	Voice Over Internet Protocol
WEA	Wireless Emergency Alerts
WVDEP	West Virginia Department of Environmental Protection

WVDHHR	West Virginia Department of Health and Human Resources
WVDHSEM	West Virginia Division of Homeland Security and Emergency Management
WVSP	West Virginia State Police

pennsylvania
EMERGENCY MANAGEMENT AGENCY

FEMA

2024 Beaver Valley Plume Exercise

By signing this Extent of Play Agreement, the Commonwealth of Pennsylvania and the FEMA Region III exercise planning team confirm that all conditions have been met to satisfy the requirements to drive exercise play and satisfy the demonstration capability target as agreed upon for the June 11, 2024, Beaver Valley Plume Exercise.

Tina Lai Thomas	5/31/2024
FEMA Site Specialist	Date
Victor A. Wilson	6/7/2024
Lead State Planner	Date
joseph a. suders	6/10/2024
FEMA Team Leader	Date