



Beaver Valley Power Station After Action Report/ Improvement Plan

Exercise Date – June 14, 2016

Radiological Emergency Preparedness (REP) Program



FEMA

Published September 1, 2016

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EXECUTIVE SUMMARY

On June 14, 2016, a full-scale Plume Exposure Pathway exercise was demonstrated and evaluated for the 10 Mile Emergency Planning Zone (EPZ) around the Beaver Valley Power Station (BVPS) by the Federal Emergency Management Agency (FEMA), Region III. The previous full-scale exercise at this site was evaluated on June 17, 2014.

Out-of-Sequence demonstrations were conducted on May 9, 2016 and May 11, 2016. 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 Plans and Procedures (RERP) to protect the property and lives of residents and transients in the event of an emergency at BVPS. The findings in this report are based on the evaluations of the Federal evaluation team, with final determinations made by the FEMA, Region III 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 evaluation of this Exercise determined that there were no Level 1 Findings, two Level 2 Findings, and one Plan Issue (PI). 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 exercise 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 exercise that is not considered, by itself, to adversely impact public health and safety." Finally, a Planning Issue is: "An observed or identified inadequacy in the ORO's emergency plan/implementing procedures, rather than that of the ORO's performance."

FEMA wishes to acknowledge the efforts of many individuals in the State of West Virginia and the risk jurisdiction of Hancock 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: EXERCISE OVERVIEW

1.1 Exercise Details

Exercise Name

Plume 2016-06-14

Type of Exercise

Plume

Exercise Date

June 14, 2016

Program

Department of Homeland Security/FEMA Radiological Emergency Preparedness Program

Scenario Type

Plume Exposure Pathway

1.2 Exercise Planning Team Leadership

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1.3 Participating Organizations

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

State Jurisdictions

State of West Virginia

- Charleston, West Virginia Forecast Office, National Weather Service
- West Virginia Bureau for Public Health
- West Virginia Department of Agriculture
- West Virginia Department of Environmental Protection
- West Virginia Department of Military Affairs and Public Safety
- West Virginia Department of Health and Human Resource
- West Virginia Division of Homeland Security and Emergency Management
- West Virginia Division of Natural Resources
- West Virginia's Governor's Office
- West Virginia National Guard
- West Virginia State Police
- West Virginia University Extension

Risk Jurisdictions

Hancock County

- Chester Police Department
- Hancock County 911
- Hancock County Commission
- Hancock County Department of Health
- Hancock County Emergency Medical Services
- Hancock County Office of Emergency Management
- Hancock County School District
- Hancock County School District, Allison Elementary School
- Hancock County Sheriff's Department
- Hancock County Sheriff's Reserve
- Hancock County, Weir High School
- Lawrenceville Volunteer Fire Department
- New Cumberland Police Department
- New Cumberland Volunteer Fire Department
- New Manchester Volunteer Fire Department
- Oakland District Volunteer Fire Department
- Weirton Fire Department

Support Jurisdictions

Brooke County

- Brooke County Emergency Management Agency
- Brooke County Health Department

Ohio County

- Ohio County Emergency Management Agency
- Wheeling-Ohio County Health Department

Marshall County

- Marshall County Emergency Management Agency
- Marshall County Health Department

Private Organizations

- Wetzel-Tyler Health Department
- American Red Cross, Southwest WV Chapter

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 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 on the basis of 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 June 17, 1993 (Federal Register, Vol. 58, No. 176, September 14, 1993); 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, and
 - U.S. Food and Drug Administration

Representatives of these agencies serve on the Region III Regional Assistance Committee (RAC), which is chaired by FEMA. A REP Plume Exposure Pathway Exercise was conducted

during the week of June 13, 2016, 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 III 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. 1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," November 1980;
- Radiological Emergency Preparedness Program Manual, January 2016;

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", and 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). This section also contains:

The appendices, present supplementary information:

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.

Emergency Planning Zone Description:

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 First Energy Nuclear Operating Company (FENOC). 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. One hundred and twenty sirens cover the plume EPZ; eighty five of the sirens are in Pennsylvania, twelve in West Virginia and twenty three are in Ohio.

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 objective of the 2016 Beaver Valley Power Station (BVPS) Plume Exercise was 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).

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. All of 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

DHS/FEMA Region III, BEAVER VALLEY 2016 PLUME EXPOSURE PATHWAY
EXERCISE- June 14, 2016

Meteorological conditions are wind direction from 83 degrees with a wind speed of seven miles per hour and a "C" Stability Class. Wind direction varies throughout the exercise from 78 to 87 degrees.

At 1625 hours, an ALERT was declared at the BVPS Unit 1 due to an explosion from the Unit 1 Diesel Generator from a starting air tank failure, rendering the Diesel Generator inoperable. There was no radioactive release.

At 1750 hours, a second control rod drops into the core, without a reactor trip. At 1806 hours, a Site Area Emergency was declared due to the potential loss of two barriers.

At 1935 hours, plant conditions worsened and a General Emergency was declared due to the loss of two barriers with the potential loss of the third.

The State of West Virginia and Hancock County and local agencies implemented protective response strategies based on recommendations from utility representatives and State dose/accident assessment teams.

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 14, 2016, biennial Plume Exposure Pathway EPZ Radiological Emergency Preparedness (REP) Exercise, and the Out of Sequence Exercise evaluations conducted on May 9, 2016 and May 11, 2016. The exercise was 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 Emergency Planning Zone surrounding the Beaver Valley Power Station.

Each jurisdiction and functional entity was evaluated on the basis of 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 by the use of 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 of organizational performance in an exercise 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 in the vicinity of a Nuclear Power Plant (NPP).

(L2) Level 2 Finding: an observed or identified inadequacy of organizational performance in an exercise 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' (ORO's) emergency plan/implementing 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: status of a REP exercise Evaluation Area Criterion indicating that the participating ORO demonstrated all demonstration criteria for the Evaluation Area Criterion to the level required in the extent of play agreement with two Findings assessed in the current exercise and no unresolved prior Findings.

Tables 3.1 - Summary of Exercise Evaluation

Table 3.1a – Exercise Evaluation by Classification

Date: 6/14/2016 Site: Beaver Valley Power Station			
Location	Criteria Title	Criteria	Classification
HC HCS	Implementation of PADs for Schools	3c2	L2
WV EOC	Emergency Information and Instructions for the Public/Media	5b1	L2
WV AAC	Accident Assessment and PARs for the Emergency Event	2b1	P

Table 3.1b – Exercise Evaluation – Criteria Met

Date: 6/14/2016 Site: Beaver Valley Power Station		
Location	Criteria Title	Criteria
BV JPIC	Mobilization	1a1
BV JPIC	Communications Equipment	1d1
BV JPIC	Equipment and Supplies to Support Operations	1e1
BV JPIC	Emergency Information & Instructions for the Public/Media	5b1
HC BuRA LFD	Mobilization	1a1
HC BuRA LFD	Communications Equipment	1d1
HC BuRA LFD	Equipment and Supplies to Support Operations	1e1
HC BuRA LFD	Implementation of Emergency Worker Exposure Control	3a1
HC BuRA LFD	Activation of the Back-up ANS	5a3
HC EOC	Mobilization	1a1
HC EOC	Facilities	1b1
HC EOC	Direction and Control	1c1
HC EOC	Communications Equipment	1d1
HC EOC	Equipment and Supplies to Support Operations	1e1
HC EOC	PAD Decision-making Process and Coordination for the General Public	2b2
HC EOC	Implementation of Emergency Worker Exposure Control	3a1
HC EOC	Implementation of KI Decision for Institutionalized Individuals and the Public	3b1
HC EOC	Implementation of PADs for disabilities & access/functional needs people	3c1
HC EOC	Implementation of PADs for Schools	3c2
HC EOC	Implementation of Traffic & Access Control	3d1
HC EOC	Impediments to Evacuation	3d2
HC EOC	Activation of the Prompt Alert & Notification Systems	5a1
HC EOC	Activation of the Back-up ANS	5a3
HC EOC	Emergency Information & Instructions for the Public/Media	5b1
HC HCS	Implementation of PADs for disabilities & access/functional needs people (Transportation Dependent)	3c1
HC HCS AES	Implementation of PADs for Schools	3c2
HC MCC WHS	Equipment and Supplies to Support Operations	1e1
HC MCC WHS	Temporary Care of Evacuees	6c1
HC MDC WHSC	Equipment and Supplies to Support Operations	1e1

HC MDC WHSC	Implementation of Emergency Worker Exposure Control	3a1
HC MDC WHSC	Monitoring, Decontamination, and Registration of Evacuees	6a1
HCEWMDC NCFD	Direction and Control	1c1
HC EWMD NCFD	Communications Equipment	1d1
HCEWMDC NCFD	Equipment and Supplies to Support Operations	1e1
HCEWMDC NCFD	Implementation of Emergency Worker Exposure Control	3a1
HCEWMDC NCFD	Monitoring and Decontamination of Emergency Workers and their Equipment and Vehicles	6b1
HCRC WHS	Equipment and Supplies to Support Operations	1e1
HCRC WHS	Monitoring, Decontamination, and Registration of Evacuees	6a1
HCTACPCCPD	Communications Equipment	1d1
HCTACPCCPD	Equipment and Supplies to Support Operations	1e1
HCTACPCCPD	Implementation of Emergency Worker Exposure Control	3a1
HCTACPCCPD	Implementation of Traffic & Access Control	3d1
WV FAMT1	Mobilization	1a1
WV FAMT1	Communications Equipment	1d1
WV FAMT1	Equipment and Supplies to Support Operations	1e1
WV FAMT1	Implementation of Emergency Worker Exposure Control	3a1
WV FAMT1	Plume Phase Field Measurement, Handling, & Analyses	4a3
WV FAMT2	Mobilization	1a1
WV FAMT2	Communications Equipment	1d1
WV FAMT2	Equipment and Supplies to Support Operations	1e1
WV FAMT2	Implementation of Emergency Worker Exposure Control	3a1
WV FAMT2	Plume Phase Field Measurement, Handling, & Analyses	4a3
WV SFMTM	Mobilization	1a1
WV SFMTM	Direction and Control	1c1
WV SFMTM	Communications Equipment	1d1
WV SFMTM	Equipment and Supplies to Support Operations	1e1
WV SFMTM	Field Team Management	4a2
WV AAC	Mobilization	1a1
WV AAC	Direction and Control	1c1
WV AAC	Communications Equipment	1d1
WV AAC	Equipment and Supplies to Support Operations	1e1
WV AAC	Emergency Worker Exposure Control Decisions	2a1
WC AAC	Accident Assessment and PARs for the Emergency Event	2b1
WV AAC	PAD decision-making process and coordination for the General Public	2b2
WV EOC	Mobilization	1a1
WV EOC	Direction and Control	1c1
WV EOC	Communications Equipment	1d1
WV EOC	Equipment and Supplies to Support Operations	1e1
WV EOC	PAD Decision-making Process and Coordination for the General Public	2b2
WV EOC	PADs for Disabilities & Access/Functional Needs People	2c1
WV EOC	Implementation of KI PAD for Institutionalized Individuals/Public	3b1
WV EOC	Activation of the Prompt Alert & Notification System	5a1
WV PIC	Mobilization	1a1
WV PIC	Communications Equipment	1d1
WV PIC	Equipment and Supplies to Support Operations	1e1
WV PIC	Emergency Information & Instructions for the Public/Media	3a1

3.3 Criteria Evaluation Summaries

3.3.1 State Jurisdictions

3.3.1.1 State of West Virginia Emergency Operations Center

In summary, the status of DHS/FEMA criteria for the State jurisdiction is as follows:

- a. MET: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 2.b.2, 2.c.1, 3.b.1, 5.a.1
- b. LEVEL 1 FINDINGS: NONE
- c. LEVEL 2 FINDINGS: ONE

ISSUE NO: 03-16-5.b.1-L2-01

CRITERION: Emergency Information and Instructions for the Public and the Media

CONDITION: The Public Information Officers (PIOs) in the State Emergency Operations Center (SEOC) provided neither accurate nor timely information to the media for the citizens of West Virginia. Accurate information was provided to the public from the Hancock County EOC.

POSSIBLE CAUSE: The PIOs were unsure of their plan responsibilities to create and release public information and to coordinate public information with other stakeholder agencies. The SEOC Controller contacted them twice to educate them on their responsibilities to craft messages for the citizens of West Virginia and they had reference books available which were never used.

PIOs were not trained to understand what information was important to relay in a nuclear power plant incident.

There was inadequate direction and control from the SEOC leadership to direct the activities of the PIOs and to check the accuracy of their work product as part of the approval process.

REFERENCE: NUREG-0654/FEMA-REP-1, E.5, 7; G.3.a, G.4.a, c

EFFECT: The citizens of West Virginia would not have received the timely and accurate information needed to protect themselves from the hazards generated by this incident.

RECOMMENDATION: The PIOs should be trained to understand the basics of the Radiological Emergency Preparedness program, public information best practices and procedures, and to use their reference materials. Adequate direction and control should be exerted over the public information function.

- d. PLAN ISSUES: NONE
- e. PRIOR ISSUES RESOLVED: NONE
- f. PRIOR ISSUES: UNRESOLVED: NONE

3.3.1.2 West Virginia Public Information Center

In summary, the status of DHS/FEMA criteria for the State jurisdiction is as follows:

- a. MET: 1.a.1, 1.d.1, 1.e.1, 5.b.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

3.3.1.3 West Virginia Accident Assessment Center

In summary, the status of DHS/FEMA criteria for the State jurisdiction is as follows:

- a. MET: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 2.a.1, 2.b.1, 2.b.2
- b. LEVEL 1 FINDINGS: NONE
- c. LEVEL 2 FINDINGS: NONE
- d. PLAN ISSUES: ONE

ISSUE NUMBER: 03-16-2.b.1-P-01

CRITERION: Accident Assessment and PARs for the Emergency Event

CONDITION: The State of West Virginia (WV) did not have specific procedures to conduct radiation dose projections using Meteorological Information and Dose Assessment System (MIDAS) dose projection software or procedures for alternate methods that could be used (hand calculations), to include calculations using field monitoring team data. With assistance from the licensee, the WV Accident Assessment Manager was able to complete a MIDAS dose projection.

POSSIBLE CAUSE: The State of West Virginia recently changed from using Radiological Assessment Systems for Consequence Analysis (RASCAL) to

MIDAS dose projection software. State procedures have not been revised to reflect the use of MIDAS. Accident Assessment personnel were provided training on the new software; however, a Beaver Valley Power Station (BVPS) site specific procedure was not developed. The Accident Assessment Manager was not aware which plant radiological parameters would be automatically populated and which data he would have to obtain from the licensee.

REFERENCE: NUREG-0654/FEMA REP-1, Rev. 1, I.10; Radiological Emergency Preparedness Program Manual, FEMA P-1028, January 2016; West Virginia Radiological Emergency Plan, Annex 15 – Accident Assessment (Plume Phase), Issue 9, Revision 1, January 1, 2014

EFFECT: When doing a radiation dose projection using MIDAS, the software populated data for BVPS main steam line radiation monitors that was incorrect. The Accident Assessment Manager received error messages and could not complete a dose projection. He consulted with licensee dose assessment staff who informed him that the main steam line data was incorrect. They (the licensee dose assessment team) had to get the radiation monitor data from the BVPS control room. If the WV Accident Assessment Manager is not aware which MIDAS parameters are correctly populated and which needs to be obtained and input manually, he could do inaccurate or untimely dose projections that could delay appropriate Protective Action Decisions. The ability to calculate dose projections from field survey data is imperative in the case of an unmonitored release of radioactive material.

RECOMMENDATION: Develop an accident assessment procedure for dose assessment using MIDAS software, hand calculations, and field survey data to formulate Protective Action Recommendations.

RESOLVED: August 29, 2016. Plans and Procedures have been updated to incorporate the West Virginia-BVPS Midas Dose Assessment Software

- e. PRIOR ISSUES: RESOLVED: NONE
- f. PRIOR ISSUES: UNRESOLVED: NONE

3.3.1.4 West Virginia State Field Monitoring Team Management

In summary, the status of DHS/FEMA criteria for the State jurisdiction is as follows:

- a. MET: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 4.a.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

3.3.1.5 West Virginia Field Air Monitoring Team 1

In summary, the status of DHS/FEMA criteria for the State jurisdiction is as follows:

- a. MET: 1.a.1, 1.d.1, 1.e.1, 3.a.1, 4.a.3
- b. LEVEL 1 FINDINGS: NONE
- c. LEVEL 2 FINDINGS: NONE
- d. PLAN ISSUES: NONE
- e. PRIOR ISSUES – RESOLVED: ONE
- f. PRIOR ISSUES – UNRESOLVED: NONE

3.3.1.6 West Virginia Field Air Monitoring Team 2

In summary, the status of DHS/FEMA criteria for the State jurisdiction is as follows:

- a. MET: 1.a.1, 1.d.1, 1.e.1, 3.a.1, 4.a.3
- b. LEVEL 1 FINDINGS: NONE
- c. LEVEL 2 FINDINGS: NONE
- d. PLAN ISSUES: NONE
- e. PRIOR ISSUES – RESOLVED: ONE
- f. PRIOR ISSUES – UNRESOLVED: NONE

3.3.2 Risk Jurisdictions

3.3.2.1 Hancock County Emergency Operations Center

In summary, the status of DHS/FEMA criteria for this Risk location is as follows:

- a. MET: 1.a.1, 1.b.1, 1.c.1, 1.d.1, 1.e.1, 2.b.2, 3.a.1, 3.b.1, 3.c.1, 3.c.2, 3.d.1, 3.d.2, 5.a.1, 5.a.3, 5.b.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

3.3.2.2 Hancock County Traffic and Access Control, Chester Police Department

In summary, the status of DHS/FEMA criteria for this Risk location is as follows:

- a. MET: 1.d.1, 1.e.1, 3.a.1, 3.d.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

3.3.2.3 Hancock County Back-up Route Alerting, Lawrenceville Fire Department

In summary, the status of DHS/FEMA criteria for this Risk location is as follows:

- a. MET: 1.a.1, 1.d.1, 1.e.1, 3.a.1, 5.a.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

3.3.2.4 Hancock County Reception Center, Weir High School Complex

In summary, the status of DHS/FEMA criteria for this Risk location is as follows:

- a. MET: 1.e.1, 6.a.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

3.3.2.5 Hancock County Monitoring and Decontamination Center, Weir High School Complex

In summary, the status of DHS/FEMA criteria for this Risk location is as follows:

- a. MET: 1.e.1, 3.a.1, 6.a.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

3.3.2.6 Hancock County Mass Care Center, Weir High School Complex

In summary, the status of DHS/FEMA criteria for this Risk location is as follows:

- a. MET: 1.e.1, 6.c.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

3.3.2.7 Hancock County Emergency Worker Monitoring and Decontamination Station, New Cumberland Fire Department

In summary, the status of DHS/FEMA criteria for this Risk location is as follows:

- a. MET: 1.c.1, 1.d.1, 1.e.1, 3.a.1, 6.b.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

3.3.2.8 Hancock County School District

In summary, the status of DHS/FEMA criteria for this Risk location is as follows:

- a. MET: 3.c.1
- b. LEVEL 1 FINDINGS: NONE
- c. LEVEL 2 FINDINGS: ONE

ISSUE NUMBER: 03-16-3.c.2-L2-02

CRITERION: Implementation of PADs for Schools

CONDITION: Hancock County School District representative was not aware of the roles and responsibilities for the District.

POSSIBLE CAUSE: A lack of training in this position caused the School District Representative to be unfamiliar with their roles and responsibilities. Not familiar with plans and procedures.

REFERENCE: NUREG-0654/FEMAREP-1, J.10.c, d, e, g

EFFECT: The School District representative was unaware of the roles and responsibilities for contacting Principals; Parents and Transportation Providers. This could result in protective actions not being implemented and create confusion amongst parents and transportation providers on the status of school children.

RECOMMENDATION: The Hancock County School District should be trained in the roles and responsibilities of the position to become familiar with their plans and procedures in order to adequately provide the required protective actions for schools.

IMPROVEMENT PLAN: Initiate a review of the school district plan and revise, if needed. Institute additional training for school district personnel as it relates to the plan and/or revisions. Re-demonstrate during the 2018 Federal Evaluated Exercise.

- d. PLAN ISSUES: NONE
- e. PRIOR ISSUES: RESOLVED: NONE
- f. PRIOR ISSUES: UNRESOLVED: NONE

3.3.2.9 Hancock County School District, Allison Elementary School

In summary, the status of DHS/FEMA criteria for this Risk location is as follows:

- a. MET: 3.c.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

3.3.2.10 Beaver Valley Joint Public Information Center

In summary, the status of the DHS/FEMA criteria for this location is as follows:

- a. MET: 1.a.1, 1.d.1, 1.e.1, 5.b.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: CONCLUSION

The State of West Virginia and 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 14, 2016.

Federal Emergency Management Agency (FEMA) evaluators provided analyses of six Assessment Areas. These analyses resulted in a determination of no Level 1 Findings, two Level 2 Findings, and one New Plan Issue.

“Based on the results of the exercise and a review of the offsite radiological emergency response plans and procedures submitted, FEMA Region III has determined they are adequate (meet the planning and preparedness standards of NUREG-0654/FEMA-REP-1, Revision 1, November 1980, as referenced in 44 CFR 350.5) and there is reasonable assurance they can be implemented, as demonstrated during this exercise.”

An After Action Implementation Plan (IP) will not be developed as part of this report.

APPENDIX A: EXERCISE TIMELINE

This section contains the Exercise Timeline. A table that depicts the times when an event or notifications were noted at participating agencies and locations.

Emergency Classification Level or Event	Time Utility Declared	Time That Notification Was Received at the Listed Location				
		West Virginia State EOC	State Public Information	Accident Assessment	Hancock County (WV) EOC	
NOUE						
Alert	1615	1624	1624	1629	1624	
SAE	1759	1810	1810	1802	1810	
GE	1928	1942	1942	1935	1942	
Start of Simulated Radiation Release	1928	1935	1935	1935	1941	
Termination of Simulated Radiation Release	N/A	2051	2051	2051	2051	
Facility Declared Operational		1713	1713	1630	1642	
Governor's Declaration of State of Emergency		1812	1812	1835	1812	
Exercise Terminated		2130	2130	2057	2100	
First Protective Action Decision Describe: Air, Rail, Water Restrictions		1828	1828	2000	1850	
Siren Sounding (SAE)		1833	1833	1833	1833	
EAS Broadcast time		1836	1836	1836	1836	
Additional Precautionary Actions Describe:		1841	1841	1841	1841	
Second Protective Action Decision Describe:		2000	2000	2000	2000	
Siren Sounding (GE)		2010	2010	2010	2010	
EAS Message Broadcast		2013	2013	2013	2013	
KI Decision - Emergency Workers		2000	2000	2000	2000	
KI Decision - General Public		2000	2000	2000	2000	

APPENDIX B: EXERCISE EVALUATORS AND TEAM LEADERS

The following is the list of Evaluators and Team Leaders for the Beaver Valley Power Station 2016 Radiological Emergency Preparedness Plume Exercise evaluated on June 14, 2016. The following constitutes the managing staff for the Exercise Evaluation:

- Thomas Scardino, DHS/FEMA, Regional Assistance Committee (RAC) Chairman
- Lee Torres, DHS/FEMA, Project Officer and Site Specialist
- Roger Kowieski, ICF, Regional Coordinator

DATE: 6/14/2016

SITE: Beaver Valley Power Station

LOCATION	TEAM LEADER	AGENCY
Beaver Valley Joint Public Information Center	John Price	FEMA Region 3
Hancock County Back-up Route Alerting	Tina Thomas	FEMA Region 3
Hancock County Emergency Operations Center	Tina Thomas	FEMA Region 3
Hancock County Emergency Worker Monitoring & Decontamination Center	Martin Vyenielo	FEMA Region 3
Hancock County Mass Care Center	Tina Thomas	FEMA Region 3
Hancock County Monitoring & Decontamination Center	Tina Thomas	FEMA Region 3
Hancock County Reception Center	Tina Thomas	FEMA Region 3
Hancock County School District	William McDougall	FEMA Region 3
Hancock County Traffic and Access Control	Tina Thomas	FEMA Region 3
West Virginia Accident Assessment Center	Martin Vyenielo	FEMA Region 3
West Virginia Emergency Operations Center	Michael Shuler	FEMA Region 3
West Virginia Field Air Monitoring Team 1	Martin Vyenielo	FEMA Region 3
West Virginia Field Air Monitoring Team 2	Martin Vyenielo	FEMA Region 3
West Virginia Field Team Management	Martin Vyenielo	FEMA Region 3
West Virginia Public Information Center	Michael Shuler	FEMA Region 3

LOCATION	EVALUATOR	AGENCY
Beaver Valley Joint Public Information Center	John Rice	FEMA Region 1
Hancock County Back-up Route Alerting	John Price	FEMA Region 3
Hancock County Emergency Operations Center	Tina Thomas	FEMA Region 3
Hancock County Emergency Operations Center	Bridget Ahlgrim	FEMA HQ
Hancock County Emergency Operations Center	Lisa Rink	FEMA HQ
Hancock County Emergency Operations Center	Nicholas Buls	FEMA Region 3
Hancock County Emergency Operations Center	Dave Petta	ICF
Hancock County Emergency Worker Monitoring & Decontamination Station	Robert Walker	ICF

Hancock County Mass Care Center	Joseph Suders	FEMA Region 3
Hancock County Monitoring & Decontamination Center	Martin Vyenielo	FEMA Region 3
Hancock County Reception Center	Joseph Suders	FEMA Region 3
Hancock County School District	Lee Torres	FEMA Region 3
Hancock County School District, Allison Elementary School	Lee Torres	FEMA Region 3
Hancock County Traffic and Access Control	William McDougall	FEMA Region 3
West Virginia Accident Assessment Center	Marcy Campbell	ICF
West Virginia Emergency Operations Center	Michael Shuler	FEMA Region 3
West Virginia Emergency Operations Center	Kerry Holmes	FEMA Region 3
West Virginia Emergency Operations Center	Larry Broockerd	FEMA HQ
West Virginia Field Air Monitoring Team 1	Ken Wierman	FEMA HQ
West Virginia Field Air Monitoring Team 2	Mike Henry	ICF
West Virginia Field Team Management	Robert Walker	ICF
West Virginia Public Information Center	Lenora Borchardt	ICF

APPENDIX C: ACRONYMS AND ABBREVIATIONS

Acronym	Description
AAC	Accident Assessment Coordinator
ACP	Access Control Points
ALARA	As Low As Reasonable Achievable
ARC	American Red Cross
ARCA	Area Requiring Corrective Action
CART	County Animal Response Team
DAD	Digital Alarming Dosimeter
DEMD	Deputy Emergency Management Director
DRD	Direct Reading Dosimeters
EAL	Emergency Action Level
EAS	Emergency Alert System
ECL	Emergency Classification Level
EMA	Emergency Management Agency
EMC	Emergency Management Coordinator
EMD	Emergency Management Director
EMS	Emergency Medical Services
EOC	Emergency Operations Center
EOF	Emergency Operation Facility
EOP	Emergency Operations Plan
EPLO	Emergency Preparedness Liaison Officer
EPZ	Emergency Planning Zone
ESF	Emergency Support Function
EW	Emergency Workers
EWDS	Emergency Worker Decontamination Stations
EWMD	Emergency Worker Monitoring Decontamination
FD	Fire Department
FEMA	Federal Emergency Management Agency
FENOC	First Energy Nuclear Operating Company
FMT	Field Monitoring Team
FSO	Fire Services Officer
FTC	Field Team Coordinator
FTL	Field Team Leader
GE	General Emergency
GMRS	General Mobile Radio System
GPS	Global Positioning System

HCEOC	Hancock County Emergency Operations Center
IC	Incident Commander
ICP	Incident Command Post
IU	Intermediate Unit
JIC	Joint Information Center
JPIC	Joint Public Information Center
KC	Knowledge Center
MCC	Mass Care Center
MSO	Medical Services Officer
NA	News Announcements
NCVFD	New Cumberland Volunteer Fire Department
ORO	Offsite Response Organization
OSLD	Optically Stimulated Luminescent Dosimeter
PA	Public Address
PAD	Protective Action Decision
PAR	Protection Action Recommendation
PD	Police Department
PIO	Public Information Officer
PRD	Permanent Record Dosimeters
PSO	Police Services Officer
PSP	Pennsylvania State Police
PW	Public Works
PWO	Public Works Officer
RACES	Radio Amateur Civil Emergency Services
RC	Radiological Coordinator
REACT	Radio Emergency Associated Communications Team
REP	Radiological Emergency Preparedness
REPP	Radiological Emergency Preparedness Plan
RERP	Radiological Emergency Response Plan
RO	Radiological Officer
RSO	Radiological Services Officer
SAE	Site Area Emergency
SEOC	State Emergency Operations Center
SEVAN	Satellite Emergency Voice Alert Network
SHO	State Health Officer
SOP	Standard Operating Procedures
SR	State Road
SSRERC	School System Radiological Emergency Response Checklist
TAC	Technical Assessment Center
TC	Transportation Coordinator
TCP	Traffic Control Points

TEDE	Total Effective Dose Equivalent
TLD	Thermo Luminescent Dosimeter
TO	Transportation Officer
TSO	Transportation Services Officer
UC	Unified Command
VFD	Volunteer Fire Department
WVSEOC	West Virginia State Emergency Operations Center
WVDHSEM	West Virginia Department of Homeland Security and Emergency Management

APPENDIX E: EXTENT OF PLAY AGREEMENT

The 2016 Beaver Valley Power Station Plume Exercise Extent-of-Play was negotiated and agreed upon by FEMA Region III, West Virginia Department of Homeland Security and Emergency Management (WVDHSEM), and the Emergency Management Agency of the Risk County.

BEAVER VALLEY POWER STATION

2016

RADIOLOGICAL EMERGENCY PREPAREDNESS EXERCISE

METHOD OF OPERATION

March 29, 2016

Rev. 3

1. **Beaver Valley Power Station:** The facility normally uses off-watch section personnel to participate in the exercise. The plant's simulated events, radiation readings, and emergency classifications will trigger offsite exercise actions.

2. **Offsite Response Functions:**

State: State personnel will be positioned at:

West Virginia Emergency Operations Center

- Emergency Operation Center
- Accident Assessment
- Public Information
- Communications

Hancock County Emergency Operations Center

- Emergency Operation Center

Beaver Valley Power Station Emergency Operations Facility

- Accident Assessment

Beaver Valley Power Station Joint Public Information Center

- Public Information

County:

Hancock County Emergency Operations Center

- Direction & Control
- Public Information
- Alert & Notification
- Communications

Field Play: (See 5. Demonstration Windows)

3. **Controllers:** First Energy Nuclear Operating Company (FENOC) will provide controllers at the Hancock County locations. State controllers will be positioned at the WV EOC and for the WV Field Monitoring Teams.

Controllers will not take an active part in the proceedings, but will interact with staff members to the extent necessary to fulfill their observer responsibilities. Coaching of players by Controllers is not permitted except to provide training to participants awaiting a re-demonstration.

4. **FEMA Evaluators:** Federal evaluators will be present at the State EOC, Hancock County EOC, and at field locations to evaluate player response to the actual and simulated events in the exercise scenario.

5. **Demonstration Windows:** The demonstration windows are those periods of time designated in the exercise during which specified demonstrations will be accomplished. The purpose of the window is to provide for more effective demonstrations as well as permitting the release of volunteers from the exercise play at a reasonable hour.

- The State & County EOC Operations will be conducted on June 14, 2016.
- The State will be represented at the BVPS Emergency Operations Facility during the June 14, 2016 exercise.
- The State will be represented at the BVPS Joint Public Information Center (JPIC) during the June 14, 2016 exercise.
- Out-of-Sequence Demonstrations will run independently of each other.
- Out-of-Sequence Demonstrations will be managed by the Lead Controller at each field location.
- School / Transportation demonstration 0900 hours on May 11, 2016 at Allison Elementary School, Chester, WV.
- Transportation Dependent demonstration May 11, 2016 at Allison Elementary School, Chester, WV. Demonstration School either after the Hancock County School play or during the school play.
- Reception Center, Monitoring/Decontamination Center will be conducted from 1800 to 2000 hours on May 9, 2016 at the Weir High School / Middle School Complex.
- Mass Care Center will be conducted from 18:00 to 20:00 hours on May 9, 2016 at the Weir High School / Middle School Complex.

- Emergency Worker Monitoring and Decontamination will be conducted at 18:00 on June 13, 2016 at the New Cumberland Fire Department.
- Traffic Control / Access Control points will be evaluated at 16:00 Hours on May 9, 2016 at the Chester City Building.
- Route Alerting will be demonstrated at 18:00 to 20:00 hours on May 9, 2016 at Lawrenceville Fire Department.
- Field Monitoring Teams will be demonstrated on June 14, 2016 at 1300 to 1500 hours. Teams will form at the New Cumberland Fire Station.

All demonstrations will commence promptly and, barring any complications, not continue past the end of the windows.

6. Termination

- The Lead Controller in the Hancock County EOC will coordinate the Exercise Termination with the West Virginia EOC, the BVPS EOF, and the EOCs in Beaver and Columbiana County for the June 14, 2016 Exercise.
- Field Locations / Out of Sequence Demonstrations will be terminated by the Lead Controller at each location. The termination will be based on the completion of the objectives. The termination can happen sooner than the identified end time.

7. General Concepts

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

8. Re-demonstrations

- During the out-of-sequence demonstrations and the Plume Exercise during the week of June 14, 2016, any activity that is not satisfactorily demonstrated may be re-demonstrated by the participants during the exercise provided it does not negatively interfere with the exercise. Refresher training can be provided by the players, observers, and/or controllers. Re-demonstrations will be

negotiated between the players, observers, controllers, evaluators and RAC Chair, or designee. It is permissible to extend the evaluation time to accommodate the re-demonstration. Activities corrected from a re-demonstration will be so noted.

ASSESSMENT AREA 1 Emergency Operations Management

Sub-element 1.a – Mobilization

INTENT

This sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that Offsite Response Organizations (OROs) have the capability to alert, notify, and mobilize emergency personnel and to activate and staff emergency facilities.

Criterion 1.a.1: OROs use effective procedures to alert, notify, and mobilize emergency personnel and activate facilities in timely manner. (NUREG-0654/FEMA-REP-1, A1.a, e; A.3, 4; C.1, 4, 6; D.4; E.1, 2; G.3.a; H.3, 4)

EXTENT OF PLAY

State:

- Demonstrate the capability to receive and verify notification of an emergency situation from the licensee. Contact, alert, and simulate mobilization of key emergency personnel. *(WV EOC will simulate notification/activation of the key state agencies deemed necessary, but not physically represented in the EOC during the exercise.)*
- Demonstrate the activation of facilities for immediate use by personnel in attendance for the exercise when they arrive.
- Activation procedures *(simulated or actual)* will not start until an Alert is declared.
- Simulation of activation of facilities will be completed in accordance with the plan and/or procedures.
- Personnel will be pre-positioned. This pre-positioning will be for all locations, to include EOC, field locations and any out-of-sequence demonstrations.
- EOC Twenty-four (24) Hour Staffing will be demonstrated by roster.

County:

- Demonstrate the capability to receive and verify notification of an emergency situation from the licensee. Contact, alert, and mobilize key emergency personnel in a timely manner (simulated).
- Demonstrate the activation of facilities for immediate use by mobilized personnel when they arrive to begin emergency operations.

- Activation of facilities should be completed in accordance with the plans and procedures.
- Activation of facilities will not start until an Alert is declared.
- Personnel will be pre-positioned. This pre-positioning will be for all locations, to include EOC, field locations and any out-of-sequence demonstrations.
- EOC Twenty-four (24) Hour Staffing will be demonstrated by roster.

All activities must be based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

ASSESSMENT AREA 1 Emergency Operations Management

Sub-element 1.b – Facilities

INTENT

This sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that Offsite Response Organizations (OROs) have facilities to support the emergency response.

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

EXTENT OF PLAY

State:

- All facilities were evaluated during the 2014 exercise. State facilities will not be evaluated during this exercise.

County:

- The HCEOC will be the only facility evaluated during the 2016 exercise

Facilities must be set up based on the ORO's plans and procedures and demonstrated as they would be used in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

ASSESSMENT AREA 1 Emergency Operations Management

Sub-element 1.c – Direction and Control

INTENT

This sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that Offsite Response Organizations (OROs) have the capability to control their overall response to an emergency.

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

EXTENT OF PLAY

State:

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

County:

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

All activities associated with direction and control must be performed based on the OROs plans and procedures and completed as they would be in an actual emergency, unless otherwise noted above or indicated in the extent of play agreement.

ASSESSMENT AREA 1 Emergency Operations Management

Sub-element 1.d – Communications Equipment

INTENT

The sub-element is derives from NUREG-0654/FEMA-REP-1, which requires that Offsite Response Organizations (OROs) establish and operate reliable primary and backup communication systems to ensure communications with key emergency personnel at locations such as the following: appropriate contiguous governments within the emergency planning zone

(EPZ), Federal emergency response organizations, the licensee and its facilities, emergency operations centers (EOC), and field teams.

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

EXTENT OF PLAY

State:

- Telephone communications will be available for demonstration. At least one other communication system utilized by the EOC staff will be explained.
- If a communications system is not functional, and exercise performance is not affected, no exercise issue will be assessed.
- Demonstrate the capability to manage the communication systems and ensure that all message traffic is handled without delays that might disrupt the conduct of emergency operations.

County:

- Landline telephone and at least one additional communications system will be available for demonstration.
- If a communications system is not functional, and exercise performance is not affected, no exercise issue will be assessed.
- Demonstrate the capability to manage the communication systems and ensure that all message traffic is handled without delays that might disrupt the conduct of emergency operations.
- Out-of-sequence demonstrations will have communications available but not necessarily demonstrate them.
- Communications associated with medical support facilities were demonstrated during the March 2015 MS-1 Federal Evaluated Exercise.

All activities associated with the management of communications capabilities must be demonstrated based on the OROs plans and procedures and completed as they would be in an actual emergency, unless otherwise noted above or indicated in the extent of play agreement.

ASSESSMENT AREA 1 Emergency Operations Management

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

INTENT

The sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that Offsite Response Organizations (OROs) have emergency equipment and supplies adequate to support the emergency response.

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

EXTENT OF PLAY

State:

- Maps and displays will be utilized in the EOC.
- Radiological instruments used by the State Field Teams will be with the teams in Hancock County. Dosimetry for the State Field Teams will be issued by the County. Radiological instruments will be operationally checked. A label indicating such calibration should be on each instrument or verifiable by other means, such as a letter.

KI is pre-distributed by the State to the General Public.

County:

- The dosimetry is exchanged annually and documentation will be verified during the exercise.
- The County will demonstrate the capability to maintain inventories of KI sufficient for use by emergency workers.
- Adequate quantities of dosimetry and KI are available at the County Health Department and will be confirmed by physical inspection during the May 9-11, 2016 timeframe. Available supplies of KI will be within the expiration date indicated on the KI bottles or blister packs.
- Maps and displays will be utilized in the EOC.
- Hancock County does not pre-distribute dosimetry.

- Dosimetry “Training Kits” will be available at the field locations to demonstrate the use of dosimetry if applicable. By using Training Kits, not all Emergency Workers at the Field Locations will receive dosimetry.
- KI is pre-distributed to the General Public.
- A Law Enforcement Officer in the County EOC will discuss Traffic and Access Control. An actual control point will not be established.
- Traffic Control/Access Control Points supplies/equipment will be explained during the May 9, 2016 interview.
- The inventory of equipment and supplies will be verified during the out-of-sequence evaluation.

All activities must be based on the ORO’s plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

ASSESSMENT AREA 2

Precautionary and/or Protective Action Decision Making

Sub-element 2.a – Emergency Worker Exposure Control

INTENT

The sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that Offsite Response Organizations (OROs) have the capability to assess and control the radiation exposure received by emergency workers and have a decision making chain in place, as specified in the ORO's plans and procedures, to authorize emergency worker exposure limits to be exceeded for specific missions.

Radiation exposure limits for emergency workers are the recommended accumulated dose limits or exposure rates that emergency workers may be permitted to incur during an emergency. These limits include any pre-established administrative reporting limits (that take into consideration Total Effective Dose Equivalent or organ-specific limits) identified in the ORO's plans and procedures.

Criterion 2.a.1: OROs use a decision making process, considering relevant factors and appropriate coordination, to ensure that an exposure control system, including the use of KI, is in place for emergency workers including provisions to authorize radiation exposure in excess of administrative limits or protective action guides. (NUREG-0654/FEMA-REP-1, C.6; f; K.3.a; K.4)

EXTENT OF PLAY

State:

- As appropriate, demonstrate the capability to make decisions on the distribution and administration of KI as a protective measure for emergency workers. This may be demonstrated by interview.
- The decision for KI can be “not to administer” KI.

County:

- Demonstrate the capability to make decisions concerning the authorization of exposure levels in excess of pre-authorized levels and to the number of emergency workers receiving radiation dose above pre-authorized levels. This will be done by interview.
- The decision making process for KI can be demonstrated through interview.

ASSESSMENT AREA 2

Precautionary and/or Protective Action Decision Making

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

INTENT

The sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that Offsite Response Organizations (OROs) have the capability to independently project integrated dose from projected or actual dose rates and compare these estimates to the protective action guides (PAGs). OROs must have the capability to choose, among a range of protective actions, those most appropriate in a given emergency. OROs base these choices on PAGs from their plans and procedures of EPAs “Manual of Protective Action Guides and Protective Actions for Nuclear Incidents” and other criteria, such as, plant conditions, licensee protective action recommendations (PARs), coordination of precautionary and/or protective action decisions with other political jurisdictions (e.g., other affected OROs), availability of in-place shelter, weather conditions, evacuation time estimates, and situations that create higher than normal risk from evacuation.

Criterion 2.b.1: Appropriate protective action recommendations are based on available information on plant conditions, field monitoring data, and licensee and ORO dose projections, as well as knowledge of onsite and offsite environmental conditions. (NUREG-0654/FEMA-REP-1, 1.6 and Supplement 3)

EXTENT OF PLAY

State:

- Protective Action Recommendations will be developed in accordance with Plans and/or Procedures.
- If the scenario does not involve a release, this can be demonstrated by interview.
- If adequate data becomes available, accident assessment will be performed and PARs developed.

County:

- N/A

All activities must be based on the OROs plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

ASSESSMENT AREA 2

Precautionary and/or Protective Action Decision Making

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

EXTENT OF PLAY

State:

- The State must have the capability to make both initial and subsequent precautionary and/or protective action decisions (PADs). *However, based on the recommendation by the State, the final decision will be made by the county administration.*
- Will demonstrate the capability to make initial precautionary and/or protective action recommendations/decisions in a timely manner.
- The dose assessment personnel may provide additional PARs based on the subsequent dose projections, field monitoring data, or information on plant conditions. The decision-makers must demonstrate the capability to change protective actions as appropriate based on the combination of all factors, if appropriate.
- The PAD should be coordinated between the (3) States. A coordinated PAD does not necessarily mean the same PAD.
- The PAD will be coordinated between the State of West Virginia and Hancock County.
- At least one PAD/PAR will be demonstrated.
- In West Virginia, KI is pre-distributed to the General Public.
- If the scenario does not involve a release, this can be demonstrated through interview.

County:

- N/A

All decision-making activities by ORO personnel must be performed based on the OROs plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

ASSESSMENT AREA 2

Precautionary and/or Protective Action Decision Making

Sub-element 2.c – Precautionary and/or Protective Action Decision Consideration for the Protection of Persons with Disabilities and Access/Functional Needs

INTENT

The sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that Offsite Response Organizations (OROs) should have the capability to determine precautionary and/or protective action decisions, including evacuation, sheltering and use of potassium iodide (KI), if applicable, for groups of persons with disabilities and access/functional needs (e.g., hospitals, nursing homes, correctional facilities, schools, licensed day care centers, mobility impaired individuals, and transportation dependent individuals). Focus is on those groups of persons with disabilities and access/functional needs that are (or potentially will be) affected by a radiological release from a nuclear power plant.

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

EXTENT OF PLAY

State:

- N/A

County:

- Schools will be demonstrated out of sequence on May 11, 2016.
- Special populations will be demonstrated through interview with the appropriate EOC staff.
- If the scenario does not involve a release, this can be demonstrated through interview.

All decision-making activities associated with protective actions, including consideration of available resources, for special population groups must be based on the OROs plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement. Sub-elements 2.d and 2.e will not be evaluated during this plume exercise. They are ingestion exercise criterion.

ASSESSMENT AREA 3 Protective Action Implementation

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

INTENT

The sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that Offsite Response Organizations (OROs) have the capability to provide for the following: distribution, use, collection, and processing of direct-reading dosimetry and permanent record dosimetry; the reading of direct-reading dosimetry by emergency workers at appropriate frequencies; maintaining a radiation dose record for each emergency worker; and establishing a decision chain or authorization procedure for emergency workers to incur radiation exposures in excess of protective action guides (PAGs), and the capability to provide KI for emergency workers, always applying the ALARA (As Low As Is Reasonably Achievable) principle as appropriate.

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

EXTENT OF PLAY

State:

- N/A

County:

- Emergency workers who are assigned dosimetry will demonstrate the procedures to monitor and record dosimetry readings. The workers may be interviewed by the evaluator to determine their knowledge of radiological exposure control, radiation exposure limits, turn-back values and whom to contact in the event authorization is needed to exceed their limits.
- OROs will demonstrate the actions described in the plan and/or procedures by determining whether to replace the emergency worker, to authorize the worker to incur additional exposures or to take other actions. If scenario events do not require emergency workers to seek authorizations for additional exposure, evaluators should interview at least two emergency workers, to determine their knowledge of whom to contact in the event authorization is needed.
- Emergency workers may use any available resources (e.g., written procedures and/or co-workers) in providing responses.

- Dosimetry “Training Kits” will be available at the field locations to demonstrate the use of dosimetry. Area monitoring kits may be utilized.
- The supply of DRDs, PRDs and KI will be available in the Hancock County EOC.
- If the scenario does not involve a release, this can be done by interview.
- Demonstrate through interview with the County Director (or designee) how KI would be distributed to EPZ emergency workers.

All activities must be based on the OROs plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

ASSESSMENT AREA 3 Protective Action Implementation

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

INTENT

This Sub-element is derived from NUREG0654/FEMA-REP-1, which requires that OROs have the capability to provide KI for institutionalized individuals, and, if in the plans/procedures, to the general public for whom immediate evacuation may not be feasible, very difficult, or significantly delayed. While it is necessary for OROs to have the capability to provide KI to institutionalized individuals, providing KI to the general public is an ORO option and must be reflected as such in ORO plans/procedures. Provisions must include the availability of adequate quantities, storage, and means of distributing KI.

Criterion 3.b.1: KI and appropriate instructions are available if a decision to recommend use of KI is made. Appropriate record-keeping of the administration of KI for institutionalized individuals is maintained. (NUREG0654/ FEMA-REP-1, J.10.e, f)

EXTENT OF PLAY

State:

- The State should demonstrate the capability to formulate and disseminate appropriate instructions on the use of KI for those advised to take it.
- A decision not to take KI is an acceptable decision.

County:

- KI and appropriate instructions are available if a recommendation to administer the use of KI is made. Appropriate record-keeping of the administration of KI for institutionalized individuals is maintained.
- In West Virginia, KI is pre-distributed to the General Public.

All activities must be based on the OROs plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

**ASSESSMENT AREA 3
Protective Action Implementation**

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

INTENT

This Sub-element is derived from NUREG0654/FEMA-REP-1, which requires that OROs have the capability to implement precautionary and/or protective action decisions, including evacuation and/or sheltering, for all persons with disabilities and access/functional needs. The focus is on those persons with disabilities and access/ functional needs that are (or potentially will be) affected by a radiological release from a nuclear power plant.

Criterion 3.c.1: Precautionary and/or protective action decisions are implemented for persons with disabilities and access/ functional needs other than schools within areas subject to protective actions. (NUREG0654/FEMA-REP-1, J.10.c, d, e, g)

EXTENT OF PLAY

State:

- N/A

County:

- Demonstrate the capability to alert and notify persons with disabilities and access/functional needs, including hospitals/medical facilities, licensed day cares, nursing homes, correctional facilities, and mobility-impaired and transportation dependent individuals.

- Demonstrate the capability to provide for persons with disabilities and access/functional needs in accordance with plans and procedures.
- Contact with persons with disabilities and access/functional needs and reception facilities will be simulated.
- One transportation provided will be contacted; all other telephone calls will be simulated.
- All simulated contacts should be logged.
- Route Alerting will be conducted out of sequence on May 9, 2016.
- Notification of persons with disabilities and access/functional needs will be simulated by the Route Alerting Fire Department or notification from EOC Staff.
- Movement of Transportation Dependent – An interview will be conducted on May 11, 2016 at the Allison Elementary School either after the Hancock County School play or during the school play to demonstrate the necessary protective actions for the movement of transportation dependent personnel located within the 10-mile EPZ. This interview may include discussions with responsible and appropriate County Emergency Management personnel, a Hancock County School Bus Driver, and Radiological Officer. The discussion will include protective measure such as issue of dosimetry for bus drivers, turn-back values, issue of (KI), resources, pick up points, pre-identified routes, and relocation points in accordance with the OROs plans and procedures.

All implementing activities associated with protective actions for special populations must be based on the OROs plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

ASSESSMENT AREA 3

Protective Action Implementation

Criterion 3.c.2: OROs/School officials implement precautionary and/or protective actions for schools. (NUREG0654/FEMA-REP-1, J.10.c, d, e, g)

EXTENT OF PLAY

State:

- N/A

County:

- Demonstrate the capability to alert and notify the Hancock County School District of emergency conditions that are expected to or may necessitate precautionary and/or protective actions for students.
- Contact with the public school district will be demonstrated during the out of sequence school play.
- The Hancock County OEM and/or officials of the Hancock County School District will demonstrate the capability to make prompt decisions on protective actions for students.
- School Officials will demonstrate the decision making process for protective actions.
- Allen T. Allison Elementary School will participate out of sequence on May 11, 2016 at 0900-1100 hours.
- Transportation of school children if necessary, will be simulated.
- One bus driver will be available, at the participating school, for an interview.
- The bus will not run the route to the Host School, but will explain the procedure.
- The implementation of canceling the school day, dismissing early, or sheltering will be simulated by describing to evaluators the procedures that would be followed. If relocation is the implemented protective action, all activities to coordinate and complete the relocation of students to the Host School will be accomplished through an interview process.
- Communications will be verified by the bus driver by interview.
- Officials of the school will demonstrate the capability to develop and provide timely information to the HCEOC for use in messages to parents, the general public, and the media on the status of protective actions for schools.

All activities must be based on the OROs plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

ASSESSMENT AREA 3 Protective Action Implementation

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

INTENT

This Sub-element is derived from NUREG0654/FEMA-REP-1, which requires that OROs have the capability to implement protective action plans/procedures, including relocation and restriction of access to evacuated/sheltered areas. This Sub-element focuses on selecting, establishing, and staffing of traffic and access control points, and removal of impediments to the flow of evacuation traffic.

Criterion 3.d.1: Appropriate traffic and access control is established. Accurate instructions are provided to traffic and access control personnel. (NUREG0654/FEMA-REP-1, A.3; C.1, 4; J.10.g, j)

EXTENT OF PLAY

State:

- N/A

County:

- During the June 14, 2016 exercise, HCEOC will demonstrate the capability to select, establish, and staff appropriate traffic and access control points, consistent with protective actions.
- Staffing of Traffic and Access Control Points will be simulated.
- The capability to provide instructions to traffic and access control staff will be demonstrated through interview with the Law Enforcement Office in the HCEOC during the exercise.
- The HCEOC will demonstrate the ability to control access to rail, water and air traffic under its control by interview.
- Traffic Control/Access Control Points will be demonstrated out of sequence by interview at the Chester City Building on May 9, 2016.

All activities must be based on the OROs plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

ASSESSMENT AREA 3

Protective Action Implementation

Criterion 3.d.2: Impediments to evacuation are identified and resolved. (NUREG0654/FEMA-REP-1, J.10.k)

EXTENT OF PLAY

State:

- N/A

County:

- The HCEOC will demonstrate the capability, by interview, as requested by the scenario, to identify and take appropriate actions concerning impediments to evacuation.
- Actual dispatch of resources to deal with impediments will be simulated and logged.

All activities must be based on the OROs plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

ASSESSMENT AREA 4 Field Measurement and Analysis

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

INTENT

This Sub-element is derived from NUREG0654/FEMA-REP-1, which requires that OROs have the capability to deploy Field Monitoring Teams (FMTs) with the equipment, methods, and expertise necessary to determine the location of airborne radiation and particulate deposition on the ground from an airborne plume. In addition, NUREG0654/FEMA-REP-1 indicates that OROs must have the capability to use FMTs within the plume exposure pathway EPZ to detect airborne radioiodine in the presence of noble gases and radioactive particulate material in the airborne plume.

In an incident at a nuclear power plant, the possible release of radioactive material may pose a risk to the nearby population and environment. Although incident assessment methods are available to project the extent and magnitude of a release, these methods are subject to large uncertainties. During an incident, it is important to collect field radiological data to help characterize any radiological release. Adequate equipment and procedures are essential to such field measurement efforts.

Criteria 4.a.1: [RESERVED]

Criterion 4.a.2: Field teams (2 or more) are managed to obtain sufficient information to help characterize the release and to control radiation exposure. (NUREG0654/FEMA-REP-1, C.1; H.12; I.7, 8, 11; J.10.a)

EXTENT OF PLAY

State:

- Field Teams should be equipped with instrumentation and supplies necessary to accomplish their mission as identified in the plan and/or procedures.
- Two Field Teams will be utilized.
- Equipment use will be simulated at all other locations.
- In-route reading will be taken. Field data will be provided to the field team through Virtual Plume Computer driven model or controller injects.
- The Field Teams will be demonstrate out of sequence at 1300 hours on June 14, 2016.

- Responsible Offsite Response Organizations (OROs) will demonstrate the capability to brief teams on predicted plume location and direction, travel speed, and exposure control procedures before deployment.
- A controller will provide field team readings if the Virtual Plume System is not in place or not functioning.

County:

- N/A

All activities must be based on the OROs plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

**ASSESSMENT AREA 4
Field Measurement and Analysis**

Criterion 4.a.3: Ambient radiation measurements are made and recorded at appropriate locations, and radioiodine and particulate samples are collected. Teams will move to an appropriate low background location to determine whether any significant (as specified in the plan and/or procedures) amount of radioactivity has been collected on the sampling media. (NUREG0654/FEMA-REP-1, C.1; H.12: I.8, 9; J.10.a)

EXTENT OF PLAY

State:

- Field Teams should demonstrate the capability to report measurements and field data pertaining to the measurement of airborne radioiodine and particulates and ambient radiation to the field team coordinator.
- Field data should be shared with Ohio and Pennsylvania in a timely manner – simulated.
- Labs will not be demonstrated in this exercise (WV does not have a laboratory – laboratory analysis is provided through the State of Ohio)
- The request for Federal resources will be simulated by the West Virginia EOC.
- A controller will provide field team readings provided that the Virtual Plume System is not in place.

County:

- N/A

All activities must be based on the OROs plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

ASSESSMENT AREA 5 Emergency Notification and Public Information

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

INTENT:

This Sub-element is derived from NUREG0654/FEMA-REP-1, which requires that OROs have the capability to provide prompt instructions to the public within the plume exposure pathway EPZ. Specific provisions addressed in this Sub-element are further discussed in Section V, Part A of this Manual, Alert and Notification Systems.

Criterion 5.a.1: Activities associated with primary alerting and notification of the public are completed in a timely manner following the initial decision by authorized offsite emergency officials to notify the public of an emergency situation. The initial instructional message to the public must include as a minimum the elements required by current REP guidance. (NUREG0654/FEMA-REP-1, E.5, 6, 7)

EXTENT OF PLAY

State:

- N/A

County:

- The County will demonstrate the capability to sequentially provide an alert signal followed by an initial instructional message to populated areas (permanent resident and transient) throughout the 10-mile plume EPZ. Following the decision to activate the alert and notification system, in accordance with the County plan and/or procedures, OROs must complete system activation for primary alert/notification and disseminate the information/instructions in a timely manner (for exercise purposes, timely is defined as “with a sense of urgency and without undue delay”) for primary alerting/notification. The initial message should include the elements required by current FEMA REP guidance.
- Siren activation will be explained. Sirens will not be sounded.
- Procedures to broadcast the message must be fully demonstrated as they would be in an actual emergency up to the point of transmission. Broadcast of the message(s) or test messages is not required. The procedures will be demonstrated up to the point of actual activation.
- In Hancock County the EAS Station is activated through the National Weather Service.

- For exercise purposes the National Weather Service will be contacted, but the EAS Radio Station will not be activated. Method of sending EAS messages will be explained.
- The capability of the primary notification system to broadcast an instructional message on a 24-hour basis should be verified during an interview with the HCOEM Director or designee.

All activities must be based on the OROs plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

ASSESSMENT AREA 5

Emergency Notification and Public Information

Criterion 5.a.2: [RESERVED]

Criterion 5.a.3: Backup alert and notification of the public is completed within a reasonable time following the detection by the ORO of a failure of the primary alert and notification system. (NUREG0654/FEMA-REP-1, E.6, Appendix 3.B.2.c)

EXTENT OF PLAY

State:

- N/A

County:

- Route Alerting will be demonstrated from 1800-2000 hours on May 9, 2016 at Lawrenceville Fire Department.
- One route will be actually run and alert and notification activities along the route will be simulated (that is, the message that would actually be used is read for the evaluator, but not actually broadcast).
- Actual testing of the mobile public address system will be conducted at the Fire Station.

All activities must be based on the OROs plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

ASSESSMENT AREA 5 Emergency Notification and Public Information

Criterion 5.a.4: Activities associated with FEMA-approved exception areas (where applicable) are completed within 45 minutes following the initial decision by authorized offsite emergency officials to notify the public of an emergency situation. (NUREG-0654/FEMA-REP-1, E.6; Appendix 3.B.2.c)

EXTENT OF PLAY: No FEMA Approved Exception Areas.

ASSESSMENT AREA 5 Emergency Notification and Public Information

Sub-element 5.b – Subsequent Emergency Notification Information and Instruction of the Public and the Media

INTENT

This Sub-element is derived from NUREG0654/FEMA-REP-1, which requires that Offsite Response Organizations (OROs) have the capability to disseminate appropriate emergency information and instructions, including any recommended protective actions, to the public. In addition, NUREG0654/FEMA-REP-1 requires OROs to ensure that the capability exists for providing information to the media. This includes the availability of a physical location for use by the media during an emergency. NUREG0654/FEMA-REP-1 also provides that a system must be available for dealing with rumors. This system will hereafter be known as the “public inquiry hotline.”

Criterion 5.b.1: OROs provide accurate subsequent emergency information and instructions to the public and the news media in a timely manner. (NUREG0654/FEMA-REP-1, E.5, 7; G.3.a, G.4.a, c)

EXTENT OF PLAY

State:

- The State will ensure that emergency information and instructions are consistent with protective action decisions made by appropriate officials. The State should be prepared to disclose and explain the Emergency Classification Level (ECL) of the incident.
- Public inquiries will be demonstrated at the EOC
- Trends in rumors will be identified, if applicable.
- Subsequent emergency information and instructions will be provided to the public and the media through the Joint Public Information Center.

- One News Briefing will be conducted at the EOC. It can happen any time after the Alert Declaration. Media will be simulated.

County:

- The County will ensure that emergency information and instructions are consistent with protective action decisions made by appropriate officials. The County should be prepared to disclose and explain the Emergency Classification Level (ECL) of the incident.
- Public inquiries will be demonstrated at the EOC
- Trends in rumors will be identified, if applicable.
- Subsequent emergency information and instructions will be provided to the public and the media through the Joint Public Information Center (JPIC). State PIO will represent the County at the JPIC.
- One News Briefing will be conducted at the EOC. It can happen any time after the Alert Declaration.

All activities must be based on the OROs plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

ASSESSMENT AREA 6

Support Operation/Facilities

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

INTENT:

This Sub-element is derived from NUREG0654/FEMA-REP-1, which requires that OROs have the capability to implement radiological monitoring and decontamination of evacuees, while minimizing contamination of the facility. OROs must also have the capability to identify and register evacuees at reception centers.

Criterion 6.a.1: The reception center facility has appropriate space, adequate resources, and trained personnel to provide monitoring, decontamination, and registration of evacuees. (NUREG0654/FEMA-REP-1, A.3; C.4; J.10.h; J.12)

EXTENT OF PLAY

State:

- N/A

County:

- Reception Center, Monitoring/Decontamination Center will be conducted from 1800 to 2100 hours, May 9, 2016, at the Weir High School Complex.
- Mass Care Center will be conducted from 1800 to 2100 hours, May 9 2016, at the Weir High School Complex.
- Decontamination of evacuees/emergency workers may be simulated and conducted by interview.
- The availability of provisions for separately showering should be demonstrated or explained.
- The staff should demonstrate provisions for limiting the spread of contamination.
- Provisions should also exist to separate contaminated and uncontaminated individuals, provide changes of clothing (simulated) for individuals whose clothing is contaminated, and store contaminated clothing and personal belongings to prevent further contamination of evacuees or facilities.
- Any individual found to be contaminated, procedure should be discussed concerning the handling of potential contamination of vehicles and personal belongings.

- Monitoring personnel should explain the use of action levels for determining the need for decontamination.
- Monitoring personnel should also explain the procedures for referring evacuees who cannot be adequately decontaminated for assessment and follow up.
- Contamination of the individual will be determined by controller inject and not simulated with any low-level radiation source.
- The capability to register individuals will be demonstrated.
- One monitoring station will be established.
- One decontamination area will be established.
- A total of six (6) people will be monitored at the Reception Center. At least one (1) will be contaminated.
- Decontamination of personnel/equipment will be explained at all locations. Actual decontamination will be simulated.

All activities must be based on the OROs plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

ASSESSMENT AREA 6

Support Operations/Facilities

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

INTENT

This Sub-element is derived from NUREG0654/FEMA-REP-1, which requires that OROs have the capability to implement radiological monitoring and decontamination of emergency workers and their equipment, inclusive of vehicles.

Criterion 6.b.1: The facility/ORO has adequate procedures and resources to accomplish monitoring and decontamination of emergency workers and their equipment and vehicles. (NUREG0654/FEMA-REP-1, K.5.a, b)

EXTENT OF PLAY

State:

- N/A

County:

- The Emergency Worker Decontamination Center will be conducted from 1800 to 2100 hours, June 13, 2016, at the New Cumberland Fire Department.
- One Emergency Worker will be monitored for contamination. Discussions on the need for decontamination will be made based on controller inject radiation levels.
- Contamination control and record-keeping procedures will be demonstrated.
- Decontamination efforts will be procedurally explained, but actual decontamination will be simulated.
- The sequence for monitoring/decontamination efforts and the decision to refer individuals who cannot be decontaminated to medical facilities will be demonstrated via inquiries.
- One vehicle will be monitored and decisions regarding the need for decontamination will be made as radiation levels are presented via controller injects.
- Record-keeping procedures will be demonstrated.
- No vehicles will be washed, but decontamination procedures will be explained.
- Decontamination of personnel/equipment will be explained at all locations. Actual decontamination will be simulated.

All activities must be based on the OROs plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

ASSESSMENT AREA 6 Support Operations/Facilities

Sub-element 6.c – Temporary Care of Evacuees

INTENT

This Sub-element is derived from NUREG0654/FEMA-REP-1, which requires OROs to have the capability to establish relocation centers in host/support jurisdictions. The American Red Cross normally provides congregate care in support of OROs under existing letters of agreement.

Criterion 6.c.1: Managers of congregate care facilities demonstrate that the centers have resources to provide services and accommodations consistent with American Red Cross planning guidelines. Managers demonstrate the procedures to assure that evacuees have been monitored for contamination and have been decontaminated as appropriate prior to entering congregate care facilities. (NUREG0654/ FEMA-REP-1, J.10.h, J.12)

EXTENT OF PLAY

State:

- N/A

County:

- A Mass Care Center will be conducted from 1800 to 2100 hours on May 9, 2016, at the Weir High School Complex.
- Mass Care staff will demonstrate the capability to ensure that evacuees have been monitored for contamination, have been decontaminated as appropriate, and have been registered before entering the facility. This capability will be determined through an interview process.
- Material will not be physically available at the facility (facilities). However, availability of such items will be verified by providing the evaluator a list of sources with locations and estimates of quantities.

All activities must be based on the OROs plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

ASSESSMENT AREA 6

Support Operations/Facilities

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

INTENT

This Sub-element is derived from NUREG0654/FEMA-REP-1, which requires that OROs have the capability to transport contaminated injured individuals to medical facilities with the capability to provide medical services.

Criterion 6.d.1: The facility/ORO has the appropriate space, adequate resources, and trained personnel to provide transport, monitoring, decontamination, and medical services to contaminated injured individuals. (NUREG0654/FEMA-REP-1, F.2; H.10; K.5.a, b; L.1, 4)

EXTENT OF PLAY: Demonstrated during the Evaluated MS-1 Exercise conducted on March 12, 2015 at the Weirton Medical Center.