U.S. Department of Homeland Security
Region III
One Independence Mall, Sixth Floor
615 Chestnut Street
Philadelphia, PA 19106-4404

FEMA

SEP 18 2012

NRC/NSIR Office
NRC Headquarters' Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

To Whom It May Concern:

Enclosed is the final After Action Report/Improvement Plan for the June 19, 2012, Beaver Valley Power Station (BVPS) Radiological Emergency Preparedness Plume Exercise for the State of West Virginia.

There were no Deficiencies identified during the exercise. Two Areas Requiring Corrective Action (ARCA) were identified; both of the ARCAs were successfully re-demonstrated during the exercise. One new Planning Issue was identified and resolved on July 2, 2012. One prior ARCA and one prior Planning Issue from a previous exercise were also resolved.

Based on the results of the exercise and a review of the offsite radiological emergency response plans and procedures for the State of West Virginia and the affected local jurisdiction, FEMA Region III has determined there is reasonable assurance that the plans are adequate and can be implemented, as demonstrated during this exercise.

If you have any questions, please contact Lee Torres at (215) 931-5563.

Sincerely,

Robert P. Welch
Acting Regional Administrator

Enclosure

IX49

Beaver Valley Power Station

After Action Report/ Improvement Plan

Exercise Date - June 19, 2012

Radiological Emergency Preparedness (REP) Program

FEMA

Published September 07, 2012

This page is intentionally blank.

Beaver Valley Power Station
After Action Report/Improvement Plan

Published September 07, 2012

Contents

This page is intentionally blank.

EXECUTIVE SUMMARY

On June 19, 2012, a full-scale plume exercise was demonstrated and evaluated for the State of West Virginia for the 10 Mile Emergency Planning Zone (EPZ) around the Beaver Valley Power Station (BVPS) by the Federal Emergency Management Agency (FEMA), Region III. Out-of-Sequence demonstrations were conducted on May 7th and 9th, 2012. The purpose of the Exercise and Out-of-Sequence demonstrations was to assess the capabilities of the State and county 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 evaluator 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 most recent full-scale exercise at this site was evaluated on April 20, 2010.

There were no Deficiencies, two (2) Areas Requiring Corrective Action (ARCA) and one (1) Planning Issue (PI) identified as a result of this exercise. Both ARCAs were successfully re-demonstrated during the exercise. One Planning Issue was resolved on July 2, 2012. One ARCA from a previous exercise was re-demonstrated and one prior Planning Issue was resolved.

FEMA wishes to acknowledge the efforts of many individuals in the State of West Virginia and Hancock County (the only risk county in WV) that were evaluated at this exercise.

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
Beaver Valley Power Station

Type of Exercise
Plume

Exercise Date
June 19, 2012

Program
Department of Homeland Security/FEMA Radiological Emergency Preparedness Program

Scenario Type
Radiological Emergency

1.2 Exercise Planning Team Leadership

Lee Torres
Site Specialist
FEMA Region III
Technological Hazards Program Specialist
615 Chestnut Street
Philadelphia, Pennsylvania, 19106
215-931-5567
lee.a.torres@dhs.gov

John Price
Alternate Site Specialist
FEMA Region III
Senior Technological Hazards Specialist
615 Chestnut St., 6th flr.

Philadelphia, Pennsylvania, 19106
215-931-5570
john.price@dhs.gov

Robert Jelacic
Planning Coordinator/REP Manager
WV Division of Homeland Security and Emergency Management
Radiological Emergency Preparedness Program Manager
State Capitol Complex, 1900 Kanawha Blvd., East
Building 1, Rm. EB-80
Charleston, wv , West Virginia, 25305
304-558-5380
robert.l.jelacic@wv.gov

Terrance Lively
Planning
WV Department of Homeland Security and Emergency Management
Radiological Emergency Preparedness State Coordinator
State Capitol Complex
1900 Kanawha Blvd., East
Charleston, West Virginia, 25305
304-558-5380
terrance.d.lively2@wv.gov

Sam Paletta
Planning Coordination
FENOC
Offsite Coordinator
Beaver Valley Power Station
Route 168
Shippingport, Pennsylvania, 15077
724-682-5774
palettas@firstenergycorp.com

1.3 Participating Organizations

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

State Jurisdictions

- West Virginia Department of Agriculture
- West Virginia Department of Environmental Protection
- West Virginia Department Bureau for Public Health
- West Virginia Division of Highways
- West Virginia Division of Homeland Security and Emergency Management
- West Virginia State Police

Risk Jurisdictions

- Brooke County Emergency Management Response Team
- Chester Volunteer Fire Department
- Hancock County Schools Transportation
- Hancock County Emergency Management Agency
- Hancock County Health Department
- Hancock County Public Information Officer
- Hancock County Fire Services Officer
- New Manchester Volunteer Fire Department
- New Cumberland City Police Department
- New Cumberland Volunteer Fire Department
- New Manchester Elementary School
- Weirton City Fire Department
- West Virginia University Extention Service - Hancock County EOC

Private Organizations

- American Red Cross
- First Energy Nuclear Operating Company
- Marshall University
- Salvation Army
- RACES/Amateur Radio

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:

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;

Determining whether such plans and procedures can be implemented on the basis of observation and evaluation of exercises of the plans and procedures, conducted by State and local governments;

Responding to requests by the U.S. Nuclear Regulatory Commission (NRC) pursuant to the Memorandum of Understanding between the NRC and FEMA dated June 17, 1993 (Federal Register, Vol. 58, No. 176, September 14, 1993; and

Coordinating the activities of the following Federal agencies with responsibilities in the radiological emergency planning process:

- U.S. Department of Commerce
- U.S. Nuclear Regulatory Commission
- U.S. Environmental Protection Agency
- U.S. Department of Energy

- U.S. Department of Health and Human Services
- U.S. Department of Transportation
- U.S. Department of Agriculture
- U.S. Department of the Interior
- U.S. Food and Drug Administration

Representatives of these agencies serve on the FEMA Region III Regional Assistance Committee (RAC).

A REP exercise was conducted on June 19, 2012, to assess the capabilities of the State of West Virginia and local emergency preparedness organizations in implementing their Radiological Emergency Response Plans (RERP) and procedures to protect the public health and safety during a radiological emergency involving 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 (ORO) during a simulated radiological emergency. The findings presented in this report are based on the evaluations of the Federal evaluator 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; FEMA "Radiological Emergency Preparedness Program Manual," April 2012 and 66 FR 47546, "FEMA Radiological Emergency Preparedness: Alert and Notification, "September 12, 2001.

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

Section 2, entitled "Exercise Design Summary," includes the "Exercise Purpose and Design,"

"Exercise Objectives, Capabilities, and Activities," and the "Scenario Summary."

Section 3 of this report, entitled "Analysis of Capabilities," presents detailed information on the demonstration of applicable exercise evaluation areas at each jurisdiction or functional entity evaluated in a jurisdiction-based, issues-only format. This section also contains:

(1) Descriptions of all Deficiencies, Areas Requiring Corrective Action (ARCA), and Planning Issues assessed during this exercise, including recommended corrective actions and the State and local governments' schedule of corrective actions for each identified exercise issue;

(2) Descriptions of ARCAs and Planning Issues assessed during previous exercises and resolved at this exercise, including the corrective action demonstrated, as well as ARCAs or Planning Issues assessed during previous exercises and scheduled for demonstration at this exercise which remain unresolved.

Section 4, "Conclusion," is a description of the Region's overall assessment of the capabilities of the participating organizations.

Appendix A - Exercise Time Line. A table that depicts the times that events and notifications were noted at participating agencies and locations.

Appendix B - Exercise Evaluators and Team Leaders. A table listing the names,organizations, and evaluation responsibilities of the evaluators and management.

Appendix C - Acronyms and Abbreviations. An alphabetized table defining the acronyms and abbreviations used in this report.

Appendix D - Exercise Plan. A narrative description of information developed to implement the exercise including the Extent of Play Agreement with a detailed description of the exercise criteria and the participants' expected responses to the exercise scenario.

Appendix E - Improvement Plan. A description of Areas Requiring Corrective Action and Planning Issues, the parties responsible for implementing a corrective action and time frame for completion.

Plume Exposure Pathway EPZ Description:

BVPS is located in western Pennsylvania on the southern bank of the Ohio River in Beaver County, Pennsylvania. The site is located in 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 810 megawatts (MW); the Unit 2 output is 833 MW. One hundred and ten sirens cover the plume EPZ; 85 of the sirens are in Pennsylvania.

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 a population of 305,704 and lies 22 miles to the southeast. The maximum population distribution, including residents and transients, is 114,514 in the 10-mile EPZ.

Four major industries employ a total of 8,000 persons within 10 miles of the plant. Two small airfields (Beaver County and Herron Airport) are also in the 10 mile EPZ. Runways at both airports are oriented so that the extensions do not pass over the plant. No major thoroughfares exist in the immediate vicinity. The main line of the Conrail 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 BVPS 2012 Plume Exercise was to demonstrate the capabilities of the State of West Virginia 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 support counties to mobilize personnel and resources to establish reception, monitoring and decontamination, and mass care centers was demonstrated.

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

2.3 Scenario Summary

The following is a summary of the postulated events for the Beaver Valley Power Station 2012 Evaluated Exercise. These events did NOT occur. All times are approximate.

The scenario initial conditions have Unit 1 at 100% power, beginning of life (BOL), protected train 'B'. Reactor Coolant System (RCS) activity is 0.18 uCi/ml with a dose equivalent iodine-131 of 1.55E-4 uCi/gram. RCS leak rate is 0.01 gpm Identified and 0.00 gpm Unidentified. 'A' quench spray pump [1QS-P-1A] is OOS for mechanical maintenance. 'C' charging pump [1CH-

P-1C] is OOS for relay testing. During clearance posting it was discovered that the shutter did not close in the AE bus cubicle. Unit 2 is at 100% power, end of life (EOL), protected train 'B'

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

At 1430 the 2012 Beaver Valley Evaluated Exercise will begin.

At 1431 'A' reactor coolant pump (RCP) will experience a temporary spike in both frame and shaft vibration readings. Some minor damage will occur and material from this damage will be circulated through the reactor coolant system (RCS). RCS activity will begin to slowly rise. At 1435 a 20 gpm leak from the RCS into containment begins in an unidentified location. This meets the indicator for the declaration of an Unusual Event under EAL 2.5 "Unidentified or pressure boundary RCS leakage >10 GPM". An Unusual Event is declared by 1450.

At 1455 a High alarm on the letdown monitor [RM-CH-101A] is received. The crew will take an RCS sample and perform radiation surveys in affected spaces. RCS activity will increase and at 1518 will exceed 3.5E5 cpm on the letdown monitor which meets the indicator for the declaration of an ALERT under EAL 1.1.5 "Letdown Monitor Indication – RM-CH-101 A or B reading greater than 3.5E5 cpm (300?Ci/ml) with letdown unisolated". An ALERT will be declared by 1533. With the declaration of the ALERT the BVPS Emergency Response Organization will be activated. The Technical Support Center (TSC) and Operations Support Center (OSC) are required to be activated within 60-minutes of the event declaration, or approximately 1633. The Emergency Operations Facility (EOF) and Joint Public Information Center (JPIC) are staffed. The EOF and JPIC can activate at any time, but the EOF is required to activate within 60-minutes of declaring a Site Area Emergency. Offsite response organizations begin to activate to a predetermined level and schools are notified.

At 1645 'A' RCP seals begin to show signs of deterioration and some seal leakage begins. At 1720 'A' RCP problems progress to the point of exceeding trip criteria for vibration and leakage. The crew is expected to trip the reactor. Upon initiating a reactor trip the 'A' RCP seal pack fails and a 325 gpm RCS leak into containment begins. The crew is expected to initiate Safety Injection. Upon initiating Safety Injection EDG 1-2 will fail to start. Indicators for a Site Area Emergency for EAL 1.1.5 or 1.1.6 AND 1.2.3 or 1.2.5 are met. A Site Area Emergency should be declared by 1735.

The EOF will begin to activate per ½-EPP-IP-1.6, if not already activated. TSC personnel will begin offsite notifications. Nuclear Communications will begin activation of the Joint Public Information Center (JPIC), if not previously completed. A Site Assembly / Accountability will be simulated.

By 1752 the RCS leak size will have increased to 1000 gpm. As a result, containment pressure is positive and increasing. At 1850 a test connection upstream of damper [1VS-D-5-5A] fails allowing containment atmosphere to be released into the purge air duct room and through adjacent spaces into SLCRS. Process and effluent monitors begin to rise. A release to the environment begins. This meets the indicator for a General Emergency under EAL 1.3.2 or 1.3.4 or 7.1. A dose projection calculation will be performed which will support a Protective Action Recommendation of "Evacuate 0-5 miles 360° AND SHELTER the remainder of the 10 mile EPZ AND advise the general public to administer KI in accordance with the state plan."

The TSC is expected to pursue the source of the release and continue to cool down and depressurize the RCS. At 2007 the normal power supply to the meteorological tower will be lost and the back-up emergency diesel generator will fail to start. With a release to the public in progress, accurate meteorological data will be a high priority. Dose assessment personnel will obtain back-up data from the National Weather Service (simulated) and perform an additional dose assessment calculation. This dose assessment calculation will not result in a change to the initial Protective Action Recommendation.

If the source of the breach from containment is discovered in a timely manner, repairs can be accomplished to the test connection by 2045. This will secure the source of the release and the plume will dissipate and travel out of the area.

At 2100 the 2012 Beaver Valley Evaluated Exercise will end.

SECTION 3: ANALYSIS OF CAPABILITIES

3.1 Exercise Evaluation and Results

The matrix in Table 3.1, on the following pages, presents the status of the exercise evaluation area criteria from the REP Exercise Evaluation Methodology that were 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:

(M) Met (No Deficiency or Area Requiring Corrective Action (ARCA) assessed and no unresolved ARCAs from this or prior exercises)

(A) ARCA(s)

(P) Planning issues

(N) Not Demonstrated

3.2 Summary Results of Exercise Evaluation

Contained in this section are the results and findings of the evaluation of the State of West Virginia jurisdictions and locations that participated in the May 7th and 9th, 2012 out of sequence evaluations and the June 18 – 22, 2012, biennial Radiological Emergency Preparedness (REP) exercise. The exercise was held to test the offsite emergency response capabilities of State and local governments in the 10-mile Emergency Planning Zone (EPZ) surrounding the Beaver Valley Power Station (BVPS).

Each jurisdiction and functional entity was evaluated on the basis of its demonstration of the exercise evaluation area criteria contained in the REP Program Manual. Detailed information on the Exercise Evaluation Area criteria and the Extent of Play agreement used in this exercise are found in Appendix D of this report.

All activities were based on the plans and procedures and completed as they would have been in an actual emergency except as noted in the Extent of Play agreement.

Table 3.1 - Summary of Exercise Evaluation

DATE: 2012-06-19 SITE: Beaver Valley Power Station, PA M: Met, A: ARCA, D: Deficiency, P: Plan Issue, N: Not Demonstrated		BV JPIC	WVEOC	WVPIC	WVAAC	WV SFMTM	WVFAMT	HC EOC	HC TACP NCPD	HC BuRA CFD	HCRC WHS	HC MDC WHSC	HC MCC WHS	HCEWMDC NCFD	HC HCS NMES
Emergency Operations Management															
Mobilization	1a1	M	M	M	M			M							
Facilities	1b1														
Direction and Control	1c1		M		M			M							
Communications Equipment	1d1	M	M	M	M	M	M	M	M	M					
Equipment and Supplies to Support Operations	1e1	M	M	M	M	M	M	M	M	M	M	M	M	M	
Protective Action Decision Making															
Emergency Worker Exposure Control	2a1		M		M			M							
Dose Assessment & PARs & PADs for the Emergency Event	2b1		M		M										
Dose Assessment & PARs & PADs for the Emergency Event	2b2		M		M										
PADs for disabilities & access/functional needs people	2c1		M					M							
Radiological Assessment & Decision-making for Ingestion Pathway	2d1														
Radiological Assessment & Decision-making for Relocation/Reentry/Return	2e1														
Protective Action Implementation															
Implementation of Emergency Worker Exposure Control	3a1					M	M	M	M	M				M	
Implementation of KI PAD for Institutionalized Individuals/Public	3b1		M					M				M			
Implementation of PADs for disabilities & access/functional needs people	3c1							M							
Implementation of PADs for Schools	3c2							M							M
Implementation of Traffic & Access Control	3d1								M						
Impediments to Evacuation	3d2							M							
Availability & use of Commodity & Resource Information	3e1														
Preprinted Materials for Implementing PADs for Commodities & Resources	3e2														
Implementation of Relocation/Reentry/Return Decisions	3f1														
Field Measurement and Analysis															
RESERVED	4a1														
Plume Phase Field Measurement & Analyses	4a2					M									
Plume Phase Field Measurement & Analyses	4a3						M								
Post Plume Phase Field Measurements & Sampling	4b1														
Laboratory Operations	4c1														
Emergency Notification and Public Info															
Activation of the Prompt Alert & Notification System	5a1		M					M							
RESERVED	5a2														
Activation of the Back-up ANS	5a3							M		M					
Activation of the Exception Area ANS	5a4														
Emergency Information & Instructions for the Public/Media	5b1	M	M	M				M							
Support Operations/Facilities															
Monitoring, Decontamination, & Registration of Evacuees	6a1											M			
Monitoring/Decontamination of Emergency Workers/Equipment/Vehicles	6b1													M	
Temporary Care of Evacuees	6c1												M		
Transportation/Treatment of Contaminated Injured Individuals	6d1														

3.3 Criteria Evaluation Summaries

3.3.1 Pennsylvania Jurisdictions

3.3.1.1 Beaver Valley Joint Public Information Center

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

a. MET: 1.a.1, 1.d.1, 1.e.1, 5.b.1.
b. AREAS REQUIRING CORRECTIVE ACTION: None
c. DEFICIENCY: None
d. PLAN ISSUES: None
e. NOT DEMONSTRATED: None
f. PRIOR ISSUES - RESOLVED: None
g. PRIOR ISSUES - UNRESOLVED: None

3.3.2 West Virginia Jurisdictions

3.3.2.1 State of West Virginia Emergency Operations Center

In summary, the status of DHS/FEMA criteria for this location 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, 2.c.1, 3.b.1, 5.a.1, 5.b.1.
b. AREAS REQUIRING CORRECTIVE ACTION: 5.b.1.

ISSUE NO.: 03-12-5b1-A-01

CRITERION: OROs provide accurate emergency information and instructions to the public and news media in a timely manner.

CONDITION: The WV EOC News Release at the Alert Emergency Classification Level was not reviewed and approved by both the EOC Shift Leader and the Director Department of Homeland Security and Emergency Management (DHSEM) in accordance with the plan and procedures. Also, this News Release included technical language and acronyms copied from the BVPS Initial Notification Form that would not have been understood by the media and the general public.

POSSIBLE CAUSE: The plans and procedures were not followed.

REFERENCE: NUREG-0654 E.5, 7: G.3.a, G.4.c.

EFFECT: The accuracy and clarity of the News Release could be compromised if not adequately reviewed, verified and approved.

CORRECTIVE ACTION DEMONSTRATED: The Site Area and General Emergency new releases were reviewed and approved by the EOC Shift leader and the Director DHSEM. Plain language was used to describe the emergency classification level.

c. DEFICIENCY: None
d. PLAN ISSUES: None
e. NOT DEMONSTRATED: None
f. PRIOR ISSUES - RESOLVED: None
g. PRIOR ISSUES - UNRESOLVED: None

3.3.2.2 West Virginia Public Information Center

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

a. MET: 1.a.1, 1.d.1, 1.e.1, 5.b.1.
b. AREAS REQUIRING CORRECTIVE ACTION: None
c. DEFICIENCY: None
d. PLAN ISSUES: None
e. NOT DEMONSTRATED: None
f. PRIOR ISSUES - RESOLVED: 5.b.1.

ISSUE NO.: 03-10-5b1-P-07

ISSUE: There are discrepancies between public information documents regarding evacuee destinations and school evacuation, as indicated by the examples below:

Page 9-3, Annex 9, Suggested News Releases, titled "Information Update for Hancock County," gives evacuation information for residents of various sections of the County. The fourth paragraph states: "Persons in the areas near Wiley Ridge Road should proceed South on Wiley Ridge Road to Route 2; South on Route 2 to

Pennsylvania Avenue (Route 105); East on Pennsylvania (Route 105) to the Mass Care Center." The name and location of the Mass Care Center is not identified.

Page 9-3, Annex 9, Suggested News Releases, titled "Evacuation Announcement for Hancock County." This is a stock Emergency Alert System (EAS) message meant to be updated in an actual emergency. The fifth paragraph states: "All persons located in this area should proceed to the designated mass care center in Weirton, West Virginia, at this time." Another stock EAS message, titled "Evacuation Announcement," on an unnumbered page used the same wording. However, on an unnumbered page of Annex 9, titled "Annex Information Update," evacuees who need to shelter are instructed to go to Mountaineer Park and be assigned to one of the site care centers. The documents should provide identical instructions.

Annex 9, Suggested News Releases, two documents, titled Annual Information Update and School Evacuation Announcement, on unnumbered pages, gives inconsistent information regarding school children. The Annual Information Update states that New Cumberland Elementary students will be taken to Weir High School. However, the School Evacuation Announcement states: "Special education children, who live inside the 10-mile zone and attend New Cumberland Elementary School, will be held at New Cumberland Elementary School until picked up by parents."

CORRECTIVE ACTION DEMONSTRATED: The discrepancies as cited have been corrected through the implementation of a revised Public Information SOP (Issue 2, revision 1 (1-Feb-2012).

g. PRIOR ISSUES - UNRESOLVED: None

3.3.2.3 West Virginia Accident Assessment Center

In summary, the status of DHS/FEMA criteria for this location 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. AREAS REQUIRING CORRECTIVE ACTION: None
c. DEFICIENCY: None
d. PLAN ISSUES: None
e. NOT DEMONSTRATED: None

f. PRIOR ISSUES - RESOLVED: 1.c.1.

ISSUE NO.: 03-10-1c1-A-03

ISSUE: Personnel from the West Virginia Bureau of Public Health (BPH) did not fill the command and control functions in the Accident Assessment Area pursuant to their plans and procedures.

CORRECTIVE ACTION DEMONSTRATED: The command and control functions of the Accident Assessment Area were provided by West Virginia Bureau of Public Health.

g. PRIOR ISSUES - UNRESOLVED: None

3.3.2.4 West Virginia State Field Monitoring Team Management

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

a. MET: 1.d.1, 1.e.1, 3.a.1, 4.a.2.
b. AREAS REQUIRING CORRECTIVE ACTION: None
c. DEFICIENCY: None
d. PLAN ISSUES: None
e. NOT DEMONSTRATED: None
f. PRIOR ISSUES - RESOLVED: None
g. PRIOR ISSUES - UNRESOLVED: None

3.3.2.5 West Virginia Field Air Monitoring Team

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

a. MET: 1.d.1, 1.e.1, 3.a.1, 4.a.3.
b. AREAS REQUIRING CORRECTIVE ACTION: None
c. DEFICIENCY: None
d. PLAN ISSUES: None
e. NOT DEMONSTRATED: None
f. PRIOR ISSUES - RESOLVED: None
g. PRIOR ISSUES - UNRESOLVED: None

3.3.3 Risk Jurisdictions

3.3.3.1 Hancock County Emergency Operations Center

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

a. MET: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 2.a.1, 2.c.1, 3.a.1, 3.b.1, 3.c.1, 3.c.2, 3.d.2, 5.a.1, 5.a.3, 5.b.1.
b. AREAS REQUIRING CORRECTIVE ACTION: None
c. DEFICIENCY: None
d. PLAN ISSUES: None
e. NOT DEMONSTRATED: None
f. PRIOR ISSUES - RESOLVED: None
g. PRIOR ISSUES - UNRESOLVED: None

3.3.3.2 Hancock County Traffic and Access Control, New Cumberland Police Department

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

a. MET: 1.d.1, 1.e.1, 3.a.1, 3.d.1.
b. AREAS REQUIRING CORRECTIVE ACTION: None
c. DEFICIENCY: None
d. PLAN ISSUES: None
e. NOT DEMONSTRATED: None
f. PRIOR ISSUES - RESOLVED: None
g. PRIOR ISSUES - UNRESOLVED: None

3.3.3.3 Hancock County Back-up Route Alerting, Chester Fire Department

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

a. MET: 1.d.1, 1.e.1, 3.a.1, 5.a.3.
b. AREAS REQUIRING CORRECTIVE ACTION: 5.a.3.

ISSUE NO.: 03-12-5a3-A-02

CRITERION: Backup alert and notification of the public is completed within a reasonable time following detection by the ORO of a failure of the primary alert and notification system.

CONDITION: The route was not completed in 45 minutes.

POSSIBLE CAUSE: The route alert team had difficulty with length of route, road conditions, and terrain.

REFERENCE: NUREG-0654, E. 6, Appendix 3.B.2.c

EFFECT: Residents might not be notified of an emergency in a timely manner.

CORRECTIVE ACTION DEMONSTRATED: Another route was chosen, and demonstrated, using two separate route alert teams, within the 45 minute time frame.

c. DEFICIENCY: None
d. PLAN ISSUES: 3.a.1.

ISSUE NO.: 03-12-3a1-P-01

CRITERION: 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. Appropriate record-keeping of the administration of KI for emergency workers is maintained.

CONDITION: Standard Operating Procedure (SOP) 10 does not require emergency workers to receive a dosimetry and potassium iodide briefing prior to conducting route alerting, nor does it indicate that they should not eat, drink or smoke when performing job functions during a release.

POSSIBLE CAUSE: SOP 10 does not include instructions for a comprehensive radiological briefing to emergency workers.

REFERENCE: NUREG-0654, K.3.a, b

EFFECT: Emergency Worker safety could have been compromised by not conducting a briefing prior to deployment.

CORRECTIVE ACTION DEMONSTRATED: Effective July 2, 2012, SOP 10 has been revised to include procedures for the issue of dosimetry and potassium iodide and instructions for their use.

e. NOT DEMONSTRATED: None
f. PRIOR ISSUES - RESOLVED: None
g. PRIOR ISSUES - UNRESOLVED: None

3.3.3.4 Hancock County Reception Center, Weir High School Complex

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

a. MET: 1.e.1.
b. AREAS REQUIRING CORRECTIVE ACTION: None
c. DEFICIENCY: None
d. PLAN ISSUES: None
e. NOT DEMONSTRATED: None
f. PRIOR ISSUES - RESOLVED: None
g. PRIOR ISSUES - UNRESOLVED: None

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

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

a. MET: 1.e.1, 3.b.1, 6.a.1.
b. AREAS REQUIRING CORRECTIVE ACTION: None
c. DEFICIENCY: None
d. PLAN ISSUES: None
e. NOT DEMONSTRATED: None
f. PRIOR ISSUES - RESOLVED: None
g. PRIOR ISSUES - UNRESOLVED: None

3.3.3.6 Hancock County Mass Care Center, Weir High School Complex

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

a. MET: 1.e.1, 6.c.1.
b. AREAS REQUIRING CORRECTIVE ACTION: None
c. DEFICIENCY: None
d. PLAN ISSUES: None
e. NOT DEMONSTRATED: None
f. PRIOR ISSUES - RESOLVED: None
g. PRIOR ISSUES - UNRESOLVED: None

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

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

a. MET: 1.e.1, 3.a.1, 6.b.1.
b. AREAS REQUIRING CORRECTIVE ACTION: None
c. DEFICIENCY: None
d. PLAN ISSUES: None
e. NOT DEMONSTRATED: None
f. PRIOR ISSUES - RESOLVED: None
g. PRIOR ISSUES - UNRESOLVED: None

3.3.3.8 Hancock County, Hancock County Schools, New Manchester Elementary School

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

a. MET: 3.c.2.
b. AREAS REQUIRING CORRECTIVE ACTION: None
c. DEFICIENCY: None
d. PLAN ISSUES: None
e. NOT DEMONSTRATED: None
f. PRIOR ISSUES - RESOLVED: None
g. PRIOR ISSUES - UNRESOLVED: None

SECTION 4: CONCLUSION

As previously stated, the State and local emergency management organizations displayed knowledge of their emergency plans and procedures and adequately implemented them, thereby demonstrating reasonable assurance that those agencies can respond and protect the health, lives, and property of the residents of the BVPS Emergency Planning Zone.

APPENDIX A: EXERCISE TIMELINE

Table 1 - Exercise Timeline
DATE: 2012-06-19, SITE: Beaver Valley Power Station, PA

Emergency Classification Level or Event	Time Utility Declared	BV JPIC	WVEOC	HC EOC
Unusual Event	1443	N/A	1458	1452
Alert	1515	N/A	1524	1526
Site Area Emergency	1726	1734	1735	1732
General Emergency	1853	1905	1904	1903
Simulated Rad. Release Started	1853	1734	N/A	1903
Simulated Rad. Release Terminated	N/A	N/A	N/A	N/A
Facility Declared Operational		1625	1536	1602
Declaration of State of Emergency		1804	1738	1713
Exercise Terminated		2050	2045	2053
Early Precautionary Actions:		N/A	N/A	N/A
1st Protective Action Decision:		1815	1750	1743
1st Siren Activation		N/A	1753	1753
1st EAS or EBS Message		N/A	1756	1756
2nd Protective Action Decision:		1947	1935	1928
2nd Siren Activation		N/A	1938	1938
2nd EAS or EBS Message		N/A	1941	1941
3rd Protective Action Decision:		N/A	N/A	N/A
KI Administration Decision: EMERGENCY WORKERS		1947	1928	2004
KI ADMINISTRATION DECISION: GENERAL PUBLIC		1947	1928	2004

APPENDIX B: EXERCISE EVALUATORS AND TEAM LEADERS

The following is the list of Evaluators and Team Leaders for the BVPS 2012 Plume Exercise evaluated on June 19, 2012. Below is the list that constitutes the managing staff for the Exercise Evaluation:

Darrell Hammons, FEMA, Radiological Assistance Committee Chairman
Lee Torres, FEMA, Exercise Evaluation Program Manager and Site Specialist
Rick Kinard, FEMA, Team Leader, Hancock County Emergency Operations Center
John Price, FEMA, Team Leader, West Virginia Emergency Operations Center
Martin Vyenielo, FEMA, Team Leader, Technical Evaluations
Robert Neff, FEMA, Team Leader, Pennsylvania Emergency Operations Center
Barton Freeman, FEMA, Team Leader, Beaver County Emergency Operations Center
Joseph Suders, FEMA, Team Leader, Support County Emergency Operations Centers

DATE: 2012-06-19, SITE: Beaver Valley Power Station, PA

LOCATION	EVALUATOR	AGENCY
Beaver Valley Joint Public Information Center	Paul Nied	ICFI
State of West Virginia Emergency Operations Center	*John Price Reggie Rodgers Roy Smith Kenneth Wierman	FEMA RIII ICFI ICFI FEMA HQ
West Virginia Public Information Center	Mark Dalton	ICFI
West Virginia Accident Assessment Center	Dennis Wilford	ICFI
West Virginia State Field Monitoring Team Management	Patrick Taylor	ICFI
West Virginia Field Air Monitoring Team	Ronald Biernacki	ICFI
Hancock County Emergency Operations Center	Quirino Iannazzo *Richard Kinard Patrick Taylor Barbara Thomas	ICFI FEMA RIII ICFI FEMA RI
Hancock County Traffic and Access Control, New Cumberland Police Department	Frank Cordaro	ICFI
Hancock County Back-up Route Alerting, Chester Fire Department	Onalee Grady-Erickson	ICFI
Hancock County Reception Center, Weir High School Complex	Barton Freeman	FEMA RIII
Hancock County Monitoring and Decontamination Center, Weir High School Complex	*Robert Neff	FEMA RIII
Hancock County Mass Care Center, Weir High School Complex	Barton Freeman	FEMA RIII
Hancock County Emergency Worker Monitoring and Decontamination Station, New Cumberland Fire Department	Joseph Suders Martin Vyenielo	FEMA RIII FEMA RIII
Hancock County, Hancock County Schools, New Manchester Elementary School	*Lee Torres	FEMA RIII
* Team Leader		

APPENDIX C: ACRONYMS AND ABBREVIATIONS

Acronym	Meaning
AAC	Accident Assessment Coordinator
AAM	Accident Assessment Manager
ARCA	Area Requiring Corrective Action
BVPS	Beaver Valley Power Station
CVFD	Chester Volunteer Fire Department
DRD	Direct Reading Dosimeters
EAS	Emergency Alert System
ECL	Emergency Classification Level
EDG	Emergency Diesel Generator
EMD	Emergency Management Director
ENS	Emergency Notification System
EOC	Emergency Operations Center
EOF	Emergency Operations Facility
EPP	Emergency Preparedness Plan
EPZ	Emergency Planning Zone
EW	Emergency Workers
EWDC	Emergency Worker Decontamination Center
FEMA	Federal Emergency Management Agency
FENOC	First Energy Nuclear Operating Company
FMT	Field Monitoring Team
FMTL	Field Monitoring Team Leader
FTL	Field Team Leader
GE	General Emergency
HC	Hancock County
HCEMD	Hancock County Emergency Management Director
HCEOC	Hancock County Emergency Operations Center
HCRO	Hancock County Radiological Officer
IP	Implementing Procedure
JIC	Joint Information Center
JM	JIC Manager
JPIC	Joint Public Information Center
LE	Law Enforcement
MCC	Mass Care Center
NA	News Announcements

NRC	Nuclear Regulatory Commission
NWS	National Weather Service
OOS	Out of Service
ORO	Offsite Response Organization
PAD	Protective Action Decision
PAR	Protective Action Recommendations
PEMA	Pennsylvania Emergency Management Agency
PI	Public Information
PIO	Public Information Officer
PPE	Personal Protective Equipment
PRD	Personal Record Dosimeter
RAC	Regional Assistance Committee
RACES	Radio Amateur Communications Emergency Services
REP	Radiological Emergency Preparedness
RO	Radiological Officer
RSO	Radiological Safety Officer
SAE	Site Area Emergency
SEOC	State Emergency Operations Center
SLCRS	Standby Liquid Control Release System
SOP	Standard Operating Procedure
TCP	Traffic Control Point
TEDE	Total Effective Dose Equivalent
TLD	Thermo Luminescent Dosimeter
TSC	Technical Support Center
UE	Unusual Event
UHF	Ultra High Frequency
VFD	Volunteer Fire Department
WV	West Virginia
WVFMT	West Virginia Field Monitoring Team

APPENDIX D: EXERCISE PLAN

The enclosed Exercise Plan was created as an overall tool for facilitation and implementation of the Beaver Valley Power Station 2012 Plume Exercise and to integrate the concepts and policies of the Homeland Security Exercise Evaluation Program with the Radiological Emergency Preparedness Program Exercise Methodology. The Exercise Plan was originally drafted and published by the West Virginia Division of Homeland Security and Emergency Management as an independent document and is annexed here.

The "Beaver Valley Power Station Extent of Play 2012 Radiological Emergency Preparedness Exercise" was negotiated and agreed upon by FEMA Region III, West Virginia Division of Homeland Security and Emergency Management and the Emergency Management agency of the Risk County. It is included as an Appendix of the Exercise Plan.

NATIONAL EXERCISE PROGRAM

Exercise Plan

[2012 BEAVER VALLEY POWER STATION PLUME EXERCISE]
FEMA EVALUATED REP EXERCISE

U.S. DEPARTMENT OF HOMELAND SECURITY

FEMA

EXERCISE DATE: 06/19/12

Publishing Date: 12/08/11

This page is intentionally left blank.

PREFACE

The 2012 Beaver Valley Power Station Plume Exercise Evaluated Full Scale Exercise (FSE) is sponsored by the Federal Emergency Management Agency (FEMA), the West Virginia Division of Homeland Security and Emergency Management (WVDHSEM), the Hancock County Office of Emergency Management (HCOEM), and Beaver Valley Power Station (BVPS). This Exercise Plan (ExPlan) was produced with input, advice, and assistance from the Exercise Planning Team (EPT), which followed the draft guidance set forth in the Federal Emergency Management Agency, Homeland Security Exercise and Evaluation Program (HSEEP) and exercise guidance of FEMA, Radiological Emergency Preparedness (REP) Program. This ExPlan is valid for jurisdictions within the State of West Virginia, even though the 2012 Beaver Valley Power Station Plume Exercise is conducted in conjunction with similar exercises in the Commonwealth of Pennsylvania and the State of Ohio.

The ExPlan gives officials, observers, media personnel, and players from participating organizations the information necessary to observe or participate in a nuclear power plant accident response exercise focusing on participants' emergency response plans, policies, and procedures as they pertain to this type of event. The information in this document is current as of the date of publication and is subject to change as dictated by the EPT.

The 2012 Beaver Valley Power Station Plume Exercise is an *unclassified exercise.* The control of information is based more on public sensitivity regarding the nature of the exercise than on the actual exercise content. Some exercise material is intended for the exclusive use of exercise planners, Controllers, and Evaluators, but Players may view other materials deemed necessary to their performance. The ExPlan may be viewed by all exercise participants, *but the Controller and Evaluator (C/E) Handbook is a restricted document intended for Controllers and Evaluators only.*

All exercise participants should use appropriate guidelines to ensure the proper control of information within their areas of expertise and to protect this material in accordance with current jurisdictional directives. Public release of exercise materials to third parties is at the discretion of DHS and the EPT.

This page is intentionally left blank.

HANDLING INSTRUCTIONS

1. The title of this document is the *2012 Beaver Valley Power Station Plume Exercise Plan (ExPlan).*
2. The information gathered in this ExPlan is *For Official Use Only (FOUO)* and should be handled as sensitive information not to be disclosed. This document should be safeguarded, handled, transmitted, and stored in accordance with appropriate security directives. Reproduction of this document, in whole or in part, without prior approval from the Exercise Planning Director is prohibited.
3. At a minimum, the attached materials will be disseminated only on a need-to-know basis and when unattended, will be stored in a locked container or area offering sufficient protection against theft, compromise, inadvertent access, and unauthorized disclosure.
4. For more information, please consult the following points of contact (POCs):

Federal POC(s):
Lee A. Torres
Technological Hazards Program Specialist
Federal Emergency Management Agency Region III
615 Chestnut Street
Philadelphia, Pa 19106-4404
215-931-5567
lee.a.torres@dhs.gov

State POC(s):
Robert Jelacic
REP Program Manager
WV Division of Homeland Security and Emergency Management
Room EB-80, Bldg 1
1900 Kanawha Blvd E
Charleston WV 25305-0360
304-558-5380
Robert.l.jelacic@wv.gov

Terrance Lively
REP State Coordinator
WV Division of Homeland Security and Emergency Management
Room EB-80, Bldg 1
1900 Kanawha Blvd E
Charleston WV 25305-0360
304-558-5380
Terrance.d.lively2@wv.gov

Beaver Valley Power Station POC(s):

Sam Paletta
Emergency Preparedness
Beaver Valley Power Station
PO Box 4
Shippingport PA 15077
724-682-5774
palettas@firstenergycorp.com

TABLE OF CONTENTS

CHAPTER 1: GENERAL INFORMATION

Introduction

The 2012 Beaver Valley Power Station Plume Exercise is a full-scale exercise (FSE) designed to establish a learning environment for players to exercise emergency response plans, policies, and procedures as they pertain to Nuclear Power Plant accidents. A FSE is a complex event that requires detailed planning. To conduct an effective exercise, subject matter experts (SMEs) and local representatives from numerous agencies have taken part in the planning process and will take part in exercise conduct and evaluation.

This Exercise Plan (ExPlan) was produced at the direction of the Federal Emergency Management Agency, the West Virginia Division of Homeland Security and Emergency Management, and the Beaver Valley Power Station with the input, advice, and assistance of the Exercise Planning Team. The 2012 Beaver Valley Power Station Plume Exercise is evidence of the growing partnership between State and local jurisdictions for response to the threats our Nation and communities face.

Confidentiality

The 2012 Beaver Valley Power Station Plume Exercise is an *unclassified exercise.* The control of information is based more on public sensitivity regarding the nature of the exercise than on the actual exercise content. Some exercise material is intended for the exclusive use of exercise planners, controllers, and evaluators, but players may view other materials deemed necessary to their performance. This ExPlan may be viewed by all exercise participants, *but the Controller and Evaluator (C/E) Handbooks are restricted documents intended for controllers and evaluators only.*

All exercise participants should use appropriate guidelines to ensure the proper control of information within their areas of expertise and protect this material in accordance with current Federal Emergency Management Agency directives.

Public release of exercise materials to third parties is at the discretion of the Federal Emergency Management Agency (FEMA) and the Exercise Planning Team.

Purpose

The purpose of this exercise is to evaluate player actions against current response plans and capabilities for a nuclear power plant-related incident, and to comply with the requirements of 44 CFR 350 and the guidelines of NUREG 0654/FEMA-REP-1. Exercise planners utilized the elements described in the 67 FR 20580 (April 25, 2002) and Radiological Emergency Preparedness (REP) Program Manual (April 2012) to develop this exercise.

The objective of the Federal Emergency Management Agency, West Virginia Division of Homeland Security and Emergency Management Hancock County Office of Emergency Management is to demonstrate reasonable assurance that the public can be protected during a nuclear power plant emergency.

Target Capabilities

The establishment of the National Preparedness Priorities have steered the focus of homeland security toward a capabilities-based planning approach. Capabilities-based planning focuses on planning under uncertainty, since the next danger or disaster can never be forecast with complete accuracy. Therefore, capabilities-based planning takes an all-hazards approach to planning and preparation which builds capabilities that can be applied to a wide variety of incidents. States and Urban Areas use capabilities-based planning to identify a baseline assessment of their homeland security efforts by comparing their current capabilities against the Target Capabilities List (TCL) and the critical tasks of the Universal Task List (UTL). This approach identifies gaps in current capabilities and focuses efforts on identifying and developing priority capabilities and tasks for the jurisdiction.

The capabilities listed below have been selected by the Exercise Planning Team (EPT) from the priority capabilities identified in FEMA Radiological Emergency Preparedness Program Manual (April 2012), Exercise Evaluation Criteria. These capabilities provide the foundation for development of the exercise objectives and scenario, as the purpose of this exercise is to measure and validate performance of these capabilities and their associated critical tasks.

- Communications
- Emergency Operations Center Management
- Responder Safety and Health
- Public Safety and Security Response
- WMD/HazMat Response and Decontamination (Radiological only)
- Citizen Evacuation and Shelter-In-Place
- Emergency Public Information and Warning
- Mass Care (Sheltering, Feeding, and Related Services)

Exercise Objectives

The Emergency Preparedness Evaluation Areas – the elements and sub-elements – for this exercise are those that are required to be demonstrated in REP exercises, as required by 67 FR 20580 (April 25, 2002) and the *Interim REP Program Manual (August 2002).* Appendix B Extent of Play shows the emergency preparedness elements that are required to be demonstrated in the 2012 Beaver Valley Power Station Plume Exercise, along with the level of demonstration that will be displayed in the exercise (i.e., fully demonstrated, limited demonstration, simulated, out-of-sequence interviews, not demonstrated).

The objective of this exercise is to demonstrate reasonable assurance that the health and safety of the public can be protected, through successful demonstration of tasks identified in Appendix B.

Outstanding Issues

There is one (1) Area Requiring Corrective Action (ARCAs) as a result of the FEMA-evaluated plume-phase exercise at Beaver Valley Power Station in April 2010 that has not been re-demonstrated in subsequent exercises:

ARCA issue numbers:

03-10-1c1-A-08	**Condition:** Personnel from the West Virginia Bureau of Public Health (BPH) did not fill the command and control functions in the Accident Assessment Area pursuant to their plans and procedures.

CHAPTER 2: EXERCISE LOGISTICS

Exercise Summary

General

The 2012 Beaver Valley Power Station Plume Exercise is designed to establish a learning environment for players to exercise their plans and procedures for responding to an incident at a nuclear power plant. The 2012 Beaver Valley Power Station Plume Exercise will be conducted on June 19, 2012. Out of sequence evaluations will be conducted on May 7th and 9th and June 18, 2012.

Exercise play on June 19, 2012 is scheduled to end at 2100 hours or before. The exercise may conclude when the Lead Controller in consultation with FEMA and the Utility determine that the exercise objectives have been met at each venue.

Assumptions

Assumptions constitute the implied factual foundation for the exercise and, hence, are assumed to be present before the start of the exercise. The following general assumptions apply to the 2012 Beaver Valley Power Station Plume Exercise:

- The exercise will be graded against the REP criteria. Elements outside the scope of the REP criteria will not be graded.
- This exercise will be conducted in a no-fault learning environment wherein systems and processes, not individuals, will be evaluated.
- Exercise simulation will be realistic and plausible, containing sufficient detail from which to respond.
- Exercise players will react to the information and situations as they are presented, in the same manner as if this had been a real event.

Constructs and Constraints

Constructs are exercise devices designed to enhance or improve exercise realism. Alternatively, constraints are exercise limitations that may detract from exercise realism. Constraints may be the inadvertent result of a faulty construct or may pertain to financial and staffing issues. Although there are a number of constructs and constraints (also known as exercise artificialities) for any exercise, the EPT recognizes and accepts the following as necessary:

- Players will utilize normal, everyday communications methods, channels, and equipment.
- Out-of-Sequence play is allowed.
- Certain simulations are allowed.

The participating agencies may need to balance exercise play with real-world emergencies. It is understood that real-world emergencies will take priority.

Exercise Participants

The following are the categories of participants involved in this exercise; note that the term "participant" refers to all categories listed below, not just those playing in the exercise:

- *Players.* Players are agency personnel who have an active role in responding to the simulated emergency and perform their regular roles and responsibilities during the exercise. Players initiate actions that will respond to and mitigate the simulated emergency.
- *Controllers.* Controllers set up and operate the exercise site; plan and manage exercise play; act in the roles of response individuals and agencies not playing in the exercise. Controllers direct the pace of exercise play and routinely include members from the exercise planning team. They provide key data to players and may prompt or initiate certain player actions to ensure exercise continuity.
- *Simulators.* Simulators are control staff personnel who role-play as nonparticipating organizations or individuals. They most often operate out of the Simulation Cell (SimCell), but may occasionally have face-to-face contact with players. Simulators function semi-independently under the supervision of the Lead Controller, enacting roles (e.g., as media reporters or next of kin) in accordance with instructions provided in the Master Scenario Events List (MSEL). All simulators are ultimately accountable to the Lead Controller. For this exercise, the SimCell will be restricted to the Rumor Control Function.
- *Evaluators.* Evaluators are chosen to evaluate and provide feedback on a designated functional area of the exercise. They are chosen based on their expertise in the functional area(s) they have been assigned to review during the exercise and their familiarity with local emergency response procedures. Evaluators assess and document players' performance against established emergency plans and exercise evaluation criteria, in accordance with draft HSEEP standards and within the bounds of REP Program guidance and regulations. They are typically chosen from amongst planning committee members or the agencies/organizations that are participating in the exercise. FEMA evaluators are members of the Region III REP Program staff, representatives of the Radiological Assistance Committee, and contractors. FEMA Evaluators will not serve as Controllers.
- *Actors.* Actors are exercise participants who act or simulate specific roles during exercise play. They are typically volunteers who have been recruited to play the role of victims or other bystanders.
- *Observers.* Observers visit or view selected segments of the exercise. Observers do not play in the exercise, and do not perform any control or evaluation functions. Observers will view the exercise from a designated observation area and will be asked to remain within the observation area during the exercise. Governmental observers may be present at selected locations as assigned by the Lead Controller. Governmental observers will receive an observer briefing prior to the day of the exercise. Any V.I.P.s or other visitors will be handled by each agency or location (Municipal EOC, County EOC, etc.) according to that agencies policies and procedures.

- *Support Staff.* Exercise support staff includes individuals who are assigned administrative and logistical support tasks during the exercise (i.e. registration, catering, etc.)

Exercise Tools

Controller and Evaluator Handbooks

The 2012 Beaver Valley Power Station Plume Exercise Controller and Evaluator Handbooks are designed to help exercise Controllers and Evaluators conduct and evaluate an effective exercise. These Handbooks also enable Controllers and Evaluators to understand their roles and responsibilities in exercise execution and evaluation. Should a Player, Observer, or other person find an unattended Handbook, it should be provided to the nearest Controller or Evaluator.

Master Scenario Events List

The MSEL outlines benchmarks, as well as injects that drive exercise play. It also details realistic input to the exercise players as well as information expected to emanate from simulated organizations (i.e., those nonparticipating organizations, agencies, and individuals who would usually respond to the situation). An inject will include several items of information, such as inject time, intended recipient, responsible controller, inject type, a short description of the event, and the expected player action.

For the 2012 Beaver Valley Power Station Plume Exercise the MSEL will be used primarily for out of sequence exercise play. During the plume phase the exercise will be driven by the simulator at the utility. Notifications will go out from the utility in the same manner as they would in a real event with all communications being preceded and terminated by the phrase "This is a Drill". Additionally, West Virginia Field Monitoring Teams will be utilizing "exercise measuring instruments" that receive input from the Virtual Plume software. The Virtual Plume software will be programmed to reflect expected conditions at any given time during the exercise.

Exercise Implementation

Exercise Play

Exercise play will begin at approximately 1500 hours with a situation update going to each participating venue. Play will proceed according to the events outlined in the MSEL, in accordance with established plans and procedures. The exercise will conclude upon the completion of operations and attainment of the exercise objectives, as determined by the Lead Controller after consultation with FEMA and the Utility.

Exercise Rules

The following are the general rules that govern exercise play:

- Real-world emergency actions take priority over exercise actions.

- Exercise participants will comply with real-world response procedures, unless otherwise directed by control staff or negotiated extent-of-play agreements.
- All communications (written, radio, telephone, etc.) made during the exercise will begin and end with the phrase, *"This is a drill."*

Exercise participants placing telephone calls or initiating radio communication with the SimCell must identify the organization, agency, office, and/or individual with whom they wish to speak.

Safety Requirements

General

Exercise participant safety takes priority over exercise events. Although the organizations involved in the 2012 Beaver Valley Power Station Plume Exercise come from various response agencies, they share the basic responsibility for ensuring a safe environment for all personnel involved in the exercise. In addition, aspects of an emergency response are dangerous. Professional health and safety ethics should guide all participants to operate in their assigned roles in the safest manner possible. The following general requirements apply to the exercise:

- An exercise Safety Controller will be identified and be responsible for participant safety.
- All exercise controllers, evaluators, and staff will serve as safety observers while the exercise activities are underway. Any safety concerns must be immediately reported to the Safety Controller.
- Participants will be responsible for their own and each other's safety during the exercise. It is the responsibility of all persons associated with the exercise to stop play if, in their opinion, a real safety problem exists. Once the problem is corrected, exercise play can be restarted.
- All organizations will comply with their respective environmental, health, and safety plans and procedures, as well as the appropriate Federal, State, and local environmental health and safety regulations.

Exercise Setup

Exercise setup involves the pre-staging and dispersal of exercise materials; including registration materials, documentation, signage, and other equipment as appropriate.

Accident Reporting and Real Emergencies

- Anyone observing a participant who is seriously ill or injured will provide aid within their training, call the County 911 Center for additional aid or enlist the aid of another person to call, and advise the nearest controller. Anyone calling County 911 will use the phrase "this is not a drill" prior to explaining the injury or illness.
- The controller who is made aware of a real emergency will contact the County 911 center (if this call has not already been made) and request the appropriate aid. The controller will use the phrase "this is not a drill" prior to explaining the injury or illness.

- The controller will then contact the Lead Controller and Exercise Director with the following information:
    - Venue/function
    - Location within the venue/function
    - Condition of injured parties
    - Requirements for medical aid, fire suppression, rescue, or security resources.
- If the nature of the emergency requires a suspension of the exercise at the venue/function, all exercise activities at that facility will immediately cease. Exercise play may resume at that venue/function once the emergency situation has been addressed.
- Exercise play at other venue/functions should not cease if one venue/function has declared a "Real-World Emergency" unless they are reliant on the affected venue.
- If a real emergency occurs that affects the entire exercise, the exercise may be suspended or terminated at the discretion of the Exercise Director and Lead Controller. The notification will be made from the State Emergency Operations Center. The Lead Controller will notify the SimCell.

Site Access

Security

Exercise play for the 2012 Beaver Valley Power Station Plume Exercise will be conducted at numerous sites with varying degrees of security requirements. The Beaver Valley Power Station will control entry to the Utility, Joint Public Information Center, and the Emergency Operations Facility. Security at State and County Emergency Operations Centers will be conducted according to their individual security procedures. Individual Site Controllers will be in charge of entry into their respective exercise sites. To prevent confusion and interruption of the exercise, access to the exercise sites and the SimCell will be limited to exercise participants and approved Observers only. Players should advise their venue's controller or evaluator if an unauthorized person is present. Each organization should follow its internal security procedures, augmented as necessary to comply with exercise requirements.

Governmental Observers

Governmental agencies may assign Observers to State and County Emergency Operations Center that are being evaluated in the 2012 Beaver Valley Power Station Plume Exercise. The Lead Controller will provide a list of Observers to the appropriate Off-Site Response Organizations prior to the day of the exercise. All Observers will receive a pre-exercise briefing.

Observers are not intended to be players and should excuse themselves from any active participation in the exercise. If an Observer is engaged in any way by one of the exercise players he/she should refer the player to the Controller.

Parking and Directions

Directions to each venue area are available from the Lead Controller. Parking will be controlled according to existing policy at each individual location.

Restroom Facilities

Restroom facilities will be available at each venue.

Exercise Identification

Exercise participants will display their existing organizational identification badges.

Communications Plan

Exercise Start, Suspension, and Termination Instructions

The exercise on June 19, 2012 is scheduled to run approximately seven hours or until the Lead Controller after consultation with FEMA and the Utility determine that the exercise objectives have been met. The exercise is scheduled to end by 2100 hours. The Lead Controller will announce the exercise suspension or termination through the State Emergency Operations Center.

All spoken and written communication will start and end with the statement, "THIS IS A DRILL."

Player Communication

Players will use routine, in-place agency communication systems. Additional communication assets may be made available as the exercise progresses. All exercise communication over primary dispatch channels will cease immediately if a real world emergency is announced. Communications concerning a real world emergency will be preceded by the phrase "This is not drill". In no instance will exercise communication interfere with real-world emergency communications. Exercise communication over these channels will recommence when authorized by the Exercise Director after he is advised by County 911 that it is safe to do so. Each venue will coordinate its own internal communication networks and channels.

The primary means of communication among the SimCell, Controllers, and the venues will be telephone. A list of key telephone and fax numbers, and radio call signs will be available as a Communication Directory before the start of the exercise.

Player Briefing

Controllers may be required to read specific scenario details to the participants to begin exercise play. They may also have technical handouts or other materials to give to players in order to better orient them to the exercise environment.

Public Affairs

Joint Information Center will be established at the Beaver Valley Joint Public Information Center. Actors may play the role of reporters and (simulated **not publicly broadcast)** "public briefings" will be given as they would for a real incident.

Any participation by the actual media will be coordinated through the Exercise Director in conjunction with the PEMA Public Information Office.

CHAPTER 3: PLAYER GUIDELINES

Exercise Staff

Exercise Director

The Exercise Director has the overall responsibility for planning, coordinating, and overseeing all exercise functions. The Exercise Director for the 2012 Beaver Valley Power Station Plume Exercise is the Radiological Emergency Preparedness Regional Assistance Committee Chair. The Exercise Director has delegated the following responsibilities to other team members:

The FEMA Region III Site Specialist for the Beaver Valley Power Station has authority to make determinations concerning evaluation issues and re-demonstrations, and,

The WVDHSEM REP Program Manger has responsibility to organize and lead the Exercise Planning Team.

Trusted Agents

Trusted agents are exercise planners and participants who are responsible for developing the Scenario and the Master Scenario Events List (MSEL). These documents are restricted and are not available to the rest of the Exercise Planning Team, Players, or other Participants. The trusted agents for the 2012 Beaver Valley Power Station Plume Exercise include the Exercise Director, Lead Controller, Sam Paletta BVPS Emergency Preparedness, WVDHSEM REP Program Manager, WVDHSEM REP State Coordinator, FEMA Emergency Management Program Specialist, and the Radiological Emergency Preparedness Regional Assistance Committee (RAC) Chair.

Lead Controller

The Lead Controller also functions as a Trusted Agent. As such he is involved in developing the Master Scenario Events List and is privy to the scenario used at the Utility to generate exercise play. The Lead Controller is responsible for scheduling controllers at the "Out of Sequence" components of the exercise and the 2012 Beaver Valley Power Station Plume Exercise. The Lead Controller monitors exercise progress and coordinates decisions regarding deviations or significant changes to the scenario caused by unexpected developments during play. The Lead Controller monitors actions by individual Controllers and ensures they implement all designated and modified actions at the appropriate time. The Lead Controller for West Virginia is stationed in the State EOC during the Plume Exercise.

Controllers

At least one controller will be onsite with every facility and field team participating in the exercise, and at each out-of-sequence interview. The Controller at each location will coordinate any changes that impact the scenario or affect other areas of play through the Lead Controller The individual controllers issue exercise materials to players as required and monitor the exercise timeline. Controllers also provide injects to the players as described in the MSEL. The Trusted Agent from the Utility will act as the Controller at the Utility Sites during the Plume exercise and the Trusted Agents will act as Controller for the WV Field Monitoring Teams.

Lead Evaluator

The Lead Evaluator is responsible for the overall evaluation of the 2012 Beaver Valley Power Station Plume Exercise. The Lead Evaluator monitors exercise progress and stays in contact with the Lead Controller regarding changes to the exercise during play. The Lead Evaluator monitors actions of individual Evaluators and ensures they are tracking progress of the players in accordance with the Overview of Play. The Lead Evaluator debriefs the evaluators after the exercise and oversees the entire evaluation and After Action process. The Lead Evaluator will be the FEMA Region III REP Site Specialist or designee.

Evaluators

Evaluators work under the direction of the Lead Evaluator, and as a team with Controllers. Evaluators are Subject Matter Experts who record events that take place during the exercise and assess/submit documentation for review and inclusion in the After Action Report (AAR). Evaluators should refrain from any direct interaction with the players during exercise play except with the facilitation of a Controller for clarification of issues or during scheduled interviews.

Player Instructions

Before the Exercise

- Review the appropriate emergency plans, procedures, and exercise support documents.
- Arrive at the exercise location as instructed. Wear appropriate uniform/identification badge.
- If you gain knowledge of the scenario before the exercise, notify a controller so that appropriate actions can be taken to ensure a valid evaluation.
- Read your Player Information Handout, which includes information on exercise safety.
- Please sign in.
- West Virginia Field Monitoring Teams will be briefed by the WV Bureau of Public Health Coordinator.

During the Exercise

- Respond to the exercise events and information as if the emergency were real, unless otherwise directed by an exercise controller.
- Controllers will only give you information they are specifically directed to disseminate. You are expected to obtain other necessary information through existing emergency information channels.
- Do not engage in personal conversations with controllers, evaluators, observers, or media personnel while the exercise is in progress. If you are asked an exercise-related question, give a short, concise answer. If you are busy and cannot immediately respond, indicate so, but report back with an answer at the earliest time possible.
- If you do not understand the scope of the exercise or if you are uncertain about an organization's or agency's participation in an exercise, ask a controller.
- Parts of the scenario may seem implausible. Recognize that the exercise has objectives to satisfy and may require the incorporation of unrealistic aspects. Note that every effort has been made by the trusted agents to balance realism with safety and the creation of an effective learning and evaluation environment.
- All exercise communication will begin and end with the phrase "This is a drill". This is a precaution taken so anyone overhearing the conversation will not mistake the exercise play for a real-world emergency.
- When communicating with the SimCell, identify the organization, agency, office, and/or individual with whom you want to speak.
- Verbalize out loud when taking an action. This will ensure that evaluators are made aware of critical actions as they occur.
- Maintain a log of your activities. Many times, this log may include documentation of activities missed by a controller or evaluator.

Following the Exercise

- At the end of the exercise at your facility, participate in a debriefing with the controllers and evaluators.
- Provide all rosters, sign in sheets, logs, messages, notes or materials generated from the exercise to your controller or evaluator for review and inclusion in the AAR.
- West Virginia Field Monitoring Teams will be debriefed immediately following the exercise by the WV Bureau of Public Health Coordinator.

Simulation Guidelines

Because the 2012 Beaver Valley Power Station Plume Exercise is of limited duration and scope, the physical description of what would fully occur at the incident sites and surrounding areas will be relayed to the Players by Simulators or Controllers.

If a real emergency occurs during the exercise, the exercise at your respective venue may be suspended or terminated at the discretion of the controller(s) at each venue. If a real emergency occurs, provide assistance up to the level of your training, call 911 and use the phrase "This is not drill" and ask for the appropriate assistance, and notify the nearest Controller and Evaluator.

CHAPTER 4: EVALUATION AND POST-EXERCISE ACTIVITIES

Exercise Documentation

The goal of the 2012 Beaver Valley Power Station Plume Exercise is to comprehensively exercise and evaluate the OROs' plans and capabilities as they pertain to a potential nuclear power plant incident. After the exercise, data collected by Controllers, Evaluators, and Players will be used to identify strengths and areas for improvement in the context of the exercise design objectives.

Exercise Evaluation Guides

DHS has developed draft Exercise Evaluation Guides (EEGs) that identify expected activities for evaluation, provide consistency across exercises, and link individual tasks to disciplines and expected outcomes.

The EEGs selected by the Exercise Planning Team are contained in the evaluator materials packet along with the Evaluator Handbook. These EEGs have been selected because the activities they describe can be expected to be observed during the exercise and will guide evaluation to match the exercise design objectives. Supplemental REP evaluation material designed for the exercise may also be used.

Debriefing

Immediately following the completion of exercise play, Controllers will facilitate a debriefing with Players from their assigned location. The debriefing is an opportunity for Players to voice their opinions on the exercise and their own performance. At this time, Evaluators can also seek clarification on certain actions and what prompted Players to take them. The debriefing should not last more than 30 minutes. Evaluators should take notes during the debrief and include these observations in their analysis.

Exercise Evaluation Hotwash

Controllers, Evaluators, and selected exercise participants may attend a facilitated Controller and Evaluator Hotwash after the exercise. During the Hotwash these individuals may discuss their observations of the exercise in an open environment to clarify actions taken during the exercise.

After Action Report

The AAR is the culmination of the exercise. It is a written report outlining the strengths and areas for improvement identified during the exercise. The AAR will include the timeline, executive summary, scenario description, mission outcomes, and capability analysis. The AAR will be drafted by the FEMA Evaluation Team.

After Action Conference and Improvement Plan

The improvement process represents the comprehensive, continuing preparedness effort of which the 2012 Beaver Valley Power Station Plume Exercise is a part. The lessons learned and recommendations from the AAR will be incorporated into the Improvement Plan (IP).

After Action Conference

The After Action Conference (AAC) is a forum for jurisdiction officials to hear the results of the evaluation analysis, validate the findings and recommendations in the draft AAR, and begin development of the IP. The After Action Conference will be conducted via a conference call.

Improvement Plan

The Improvement Plan (IP) identifies how recommendations will be addressed, including what actions will be taken, who is responsible, and the timeline for completion. It is created by key stakeholders from the 2012 Beaver Valley Power Station Plume Exercise participating agency officials during the After Action Conference.

APPENDIX A: EXERCISE SCHEDULE

Table A.1 *Beaver Valley Power Station Plume Exercise Schedule*

Time (Tentative)	Personnel	Activity
05/07/2012		
1900 – 2100	Hancock County FDs	Reception Center
1900 – 2100	Hancock County Health/Red Cross	Mass Care Center
05/09/2012		
0900 – 1200	Hancock County Schools	Transportation
0900 – 1200	Hancock County Schools	Special Population Decision
06/18/2012		
1830 – 2030	Hancock County	Emergency Worker Decontamination (New Cumberland FD)
06/19/2012		
1300 - 1600	WV FMT	WV Field Monitoring Team
1500 – 2100	WV and Hancock County EOC, BVPS EOF and JPIC	Plume Exercise
1530 – 2100	Hancock County	Route Alerting at Chester FD
1500 – 1700	Hancock County EOC (New Cumberland PD)	Access Control Point/Traffic Control Point

APPENDIX B: EXTENT OF PLAY INFORMATION

INTRODUCTION

The following locations will be activated for this exercise

State

WV State Emergency Operations Center (EOC) in Charleston, WV
West Virginia Field Monitoring Team (FMT) in Hancock County, WV
Beaver Valley Emergency Response Facility (ERF) in Chippewa Township, PA
Beaver Valley Joint Public Information Center (JPIC) in Moon Township, PA

County Jurisdictions

Hancock County Emergency Operations Center in New Cumberland, WV
Hancock County Route Alerting in Chester, WV

Other Locations

Out of Sequence Demonstrations

Hancock County Reception/Mass Care Center will play out-of-sequence on May 7, 2012. Hancock County Schools will play out-of-sequence on May 9, 2012. Hancock County Emergency Worker Decontamination will play out-of-sequence on June 18, 2012 and West Virginia Field Monitoring Teams will play out-of-sequence on June 19, 2012. West Virginia EOC, BVPS ERF, and BVPS JPIC will play in-sequence on June 19, 2012. Hancock County EOC will play in-sequence on June 19, 2012. Hancock County Access/Traffic Control on June 19 2012.

PLUME PATHWAY

EXERCISE CRITERIA AND EXTENT-OF-PLAY

The Plume Pathway portion of the Beaver Valley Exercise will be conducted on June 19, 2012.

The following extent of play outlines the Evaluation Areas and the expected activities for objectives related to the Plume Pathway. All activities will be demonstrated in accordance with established plans and procedures, except as indicated in the West Virginia Extent of Play for each evaluation criterion.

Extent of Play by Evaluation Area

The following evaluation areas, sub-elements and evaluation criterion are consistent with FEMA's exercise evaluation methods as reflected in the REP Program Manual dated April 2012. Generic extent of play text from the REP Manual is quoted verbatim for each evaluation criterion and has been placed in italics. All activities will be demonstrated in accordance with established plans and procedures, except as indicated in the State of West Virginia Extent of Play for each evaluation criterion.

EVALUATION AREA 1: EMERGENCY OPERATIONS MANAGEMENT

Sub-element 1.a – Mobilization

Criterion 1.a.1: OROs use effective procedures to alert, notify, and mobilize emergency personnel and activate facilities in a timely manner. (NUREG-0654/FEMA REP-1/FEMA REP-1, A1a, A1e, A3, A4, C1, C4, C6, D4, E1, E2, H3, H4)

Intent

This sub-element is derived from NUREG-0654/FEMA REP-1/FEMA REP-1, which provides that OROs should have the capability to alert, notify, and mobilize emergency personnel and to activate and staff emergency facilities.

Extent-of-Play

Responsible OROs should demonstrate the capability to receive notification of an emergency situation from the licensee, verify the notification, and contact, alert, and mobilize key emergency personnel in a timely manner. Responsible OROs should 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 plan and/or procedures. Pre-positioning of emergency personnel is appropriate, in accordance with the Extent-of-Play agreement, at those facilities located beyond a normal commuting distance from the individual's duty location or residence. Further, pre-positioning of staff for out of sequence demonstrations is appropriate in accordance with the Extent-of-Play agreement.

State of West Virginia Negotiated Extent-of-Play

All activities will be based on the ORO's plans and procedures and completed as they would be in an actual emergency except West Virginia EOC will simulate a notification/activation of the Department of Environmental Protection, Department of Transportation, State Police and American Red Cross (these agencies will not be physically represented in the EOC during the exercise). State and County personnel will be pre-positioned, in all locations (including out-of-sequence demonstrations). State and County EOC staffing will be demonstrated through staff rosters.

Locations Evaluated

WV EOC, WV FMT, BVPS EOF, BVPS JPIC, Hancock County EOC

Outstanding Issues

Issue 03-10-1a1-P-06 (State EOC)

EVALUATION AREA 1: EMERGENCY OPERATIONS MANAGEMENT

Sub-element 1.b – Facilities

Criterion 1.b.1: Facilities are sufficient to support the emergency response. (NUREG-0654/FEMA REP-1/FEMA REP-1, H3, G3a, J10h, J12, K5b)

Intent

This sub-element is derived from NUREG-0654/FEMA REP-1/FEMA REP-1, which provides that OROs have facilities to support the emergency response.

Extent-of-Play

Facilities will only be specifically evaluated for this criterion if they are new or have substantial changes in structure or mission. Responsible OROs should demonstrate the availability of facilities that support the accomplishment of emergency operations. Some of the areas to be considered are: adequate space, furnishings, lighting, restrooms, ventilation, backup power and/or alternate facility (if required to support operations).

State of West Virginia Negotiated Extent-of-Play

West Virginia EOC has previously been evaluated under this criterion and has made no significant changes to facilities that would require a re-evaluation. This criterion will not be demonstrated by the WV EOC. Hancock County expects to finish construction on a new EOC in New Cumberland, but opening of this EOC is not expected to occur before the exercise. Hancock County is expected to use the old EOC for exercise play.

Locations Evaluated

None

Outstanding Issues

None

EVALUATION AREA 1: EMERGENCY OPERATIONS MANAGEMENT

Sub-element 1.c - Direction and Control

Criterion 1.c.1: Key personnel with leadership roles for the ORO provide direction and control to that part of the overall response effort for which they are responsible. (NUREG-0654/FEMA REP-1/FEMA REP-1, A1d, A2a, A2b, A3, C4, C6)

Intent

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

Extent -Of-Play

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 OROs, and ensuring completion of requirements and requests.

State of West Virginia Negotiated Extent-of-Play

All activities will be based on the ORO's plans and procedures and completed as they would be in an actual emergency.

Locations Evaluated

WV EOC, Hancock County EOC

Outstanding Issues

Issue 03-10-1c1-A-08

EVALUATION AREA 1: EMERGENCY OPERATIONS MANAGEMENT

Sub-element 1.d – Communications Equipment

Criterion 1.d.1: At least two communication systems are available, at least one operates properly, and communication links are established and maintained with appropriate locations. Communications capabilities are managed in support of emergency operations. (NUREG-0654/FEMA REP-1, F2, F2.)

Intent

This sub-element is derived from NUREG-0654/FEMA REP-1, which provides that OROs should establish 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.

Extent-Of-Play

OROs will demonstrate that a primary and at least one backup system are fully functional at the beginning of an exercise. If a communications system or system is not functional, but exercise performance is not affected, no exercise issue will be assessed. Communications equipment and procedures for facilities and field units should be used as needed for the transmission and receipt of exercise messages. All facilities and field teams should have the capability to access at least one communication system that is independent of the commercial telephone system. Responsible OROs should 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. OROs should ensure that a coordinated communication link for fixed and mobile medical support facilities exist.

The specific communications capabilities of OROs should be commensurate with that specified in the response plan and/or procedures. Exercise scenarios could require the failure of a communications system and the use of an alternate system.

State of West Virginia Negotiated Extent-of-Play

All activities will be based on the ORO's plans and procedures and completed as they would be in an actual emergency. Although out-of-sequence areas have communications available, they will not demonstrate this criterion. Communications associated with medical support facilities was demonstrated during the 2011 MS-1 Exercise at Weirton Medical.

Locations Evaluated

WV EOC, Hancock County EOC, WV FMT.

Outstanding Issues

None

EVALUATION AREA 1: EMERGENCY OPERATIONS MANAGEMENT

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

Criterion 1.e.1: Equipment, maps, displays, monitoring instruments, dosimetry, potassium iodide (KI), and other supplies are sufficient to support emergency operations. (NUREG-0654/FEMA REP-1, H7, H10, I7, I8, I9, J10a, J10b, J10e, J11, J12, K3a, K5b.)

Intent

This sub-element is derived from NUREG-0654/FEMA REP-1, which provides that OROs have emergency equipment and supplies adequate to support the emergency response.

Extent-Of-Play

Assessment of this Demonstration Criterion is accomplished primarily through a baseline evaluation and subsequent periodic inspections.

A particular facility's equipment and supplies must be sufficient and consistent with that facility's assigned role in the ORO's emergency operations plans. Use of maps and other displays is encouraged. For non-facility-based operations, the equipment and supplies must be sufficient and consistent with the assigned operational role. At locations where traffic and access control personnel are deployed, appropriate equipment (e.g., vehicles, barriers, traffic cones, and signs) must be available, or their availability described. Specific equipment and supplies that must be demonstrated under this criterion include KI inventories, dosimetry, and monitoring equipment, as follows:

KI: Responsible OROs must demonstrate the capability to maintain inventories of KI sufficient for use by: (1) emergency workers; (2) institutionalized individuals, as indicated in capacity lists for facilities; and (3) where stipulated by the plans/procedures, members of the general public (including transients) within the plume pathway EPZ. In addition, OROs must demonstrate provisions to make KI available to specialized response teams (e.g., civil support team, Special Weapons and Tactics Teams, urban search and rescue, bomb squads, HAZMAT, or other ancillary groups) as identified in plans/procedures). The plans/procedures must include the forms to be used for documenting emergency worker ingestion of KI, as well as a mechanism for identifying emergency workers that have declined KI in advance. Consider carefully the placement of emergency workers that have declined KI in advance.

ORO quantities of dosimetry and KI available and storage locations(s) will be confirmed by physical inspection at the storage location(s) or through documentation of current inventory submitted during the exercise, provided in the ALC submission, and/or verified during an SAV. Available supplies of KI must be within the expiration date indicated on KI bottles or blister packs. As an alternative, the ORO may produce a letter from a certified private or state laboratory indicating that the KI supply remains potent, in accordance with U.S. Pharmacopoeia standards.

Dosimetry: Sufficient quantities of appropriate direct-reading and permanent record dosimetry and dosimeter chargers must be available for issuance to all emergency workers who will be dispatched to perform an ORO mission. In addition, OROs must demonstrate provisions to make dosimetry available to specialized response teams (e.g., civil support team, Special Weapons and Tactics Teams, urban search and rescue, bomb squads, HAZMAT, or other ancillary groups) as identified in plans/procedures).

Appropriate direct-reading dosimetry must allow an individual(s) to read the administrative reporting limits and maximum exposure limits contained in the ORO's plans/procedures. Direct-reading dosimeters must be zeroed or operationally checked prior to issuance. The dosimeters must be inspected for electrical leakage at least annually and replaced when necessary. Civil Defense Victoreen Model 138s (CD V-138s) (0-200 mR), due to their documented history of electrical leakage problems, must be inspected for electrical leakage at least quarterly and replaced when necessary. This leakage testing will be verified during the exercise, through documentation submitted in the ALC and/or through an SAV.

Operational checks and testing of electronic dosimeters must be in accordance with the manufacturer's instructions and be verified during the exercise, through documentation submitted in the ALC and/or through an SAV.

Monitoring Instruments: All instruments must be inspected, inventoried, and operationally checked before each use. Instruments must be calibrated in accordance with the manufacturer's recommendations. Unmodified CDV-700 series instruments and other instruments without a manufacturer's recommendation must be calibrated annually. Modified CDV-700 instruments must be calibrated in accordance with the recommendation of the modification manufacturer. A label indicating such calibration must be on each instrument or calibrated frequency can be verified by other means. In addition, instruments being used to measure activity must have a sticker-affixed to their sides indicating the effective range of the readings. The range of readings documentation specifies the acceptable range of readings that the meter should indicate when it is response-checked using a standard test source.

For FMTs, the instruments must be capable of measuring gamma exposure rates and detecting beta radiation. These instruments must be capable of measuring a range of activity and exposure, including radiological protection/exposure control of team members and detection of activity on air sample collection media, consistent with the intended use of the instrument and the ORO's plans/procedures. An appropriate radioactive check source must be used to verify proper operational response for each low-range radiation measurement instrument (less than 1R/hr) and for high-range instruments when available. If a source is not available for a high-range instrument, a procedure must exist to operationally test the instrument before entering an area where only a high-range instrument can make useful readings.

In areas where portal monitors are used, the OROs must set up and operationally check the monitor(s). The monitor(s) must conform to the standards set forth in the Contamination Monitoring Standard for a Portal Monitor Used for Emergency Response, FEMA-REP-21 (March 1995) or in accordance with the manufacturer's recommendations.

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

State of West Virginia Negotiated Extent-of-Play

All activities will be based on the ORO's plans and procedures and completed as they would be in an actual emergency, except as noted below. State FMT may use equipment and dosimetry from Hancock County. Dosimetry/KI Training Kits will be utilized (for demonstration purposes) at the Field Locations. Sufficient on-site exercise quantities might not be provided for all ORO staffing, but sufficient quantities for operations will be able to be verified through inventory list. Dosimetry/KI simulation may be used during the exercise, provided that evaluators inspect actual equipment/inventory lists to verify equipment sufficient for response. County traffic/access control point supplies and equipment will be evaluated via interview and discussion. Equipment availability to support operations in route alerting, monitoring and decontamination, reception centers, and mass care centers may be verified through interview with EOC staff.

Locations Evaluated

WV EOC, WV FMT, Hancock County EOC

Outstanding Issues:

None

EVALUATION AREA 2: PROTECTIVE ACTION DECISION-MAKING

Sub-element 2.a – Emergency Worker Exposure Control

Criterion 2.a.1: OROs use a decision-making process, considering relevant factors and appropriate coordination, to insure 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, C6, J10e, J10f, K4.)

Intent

This sub-element is derived from NUREG-0654/FEMA REP-1, which provides that an ORO have the capability to assess and control the radiation exposure received by emergency workers and have a decision 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.

Extent-of-Play

OROs authorized to send emergency workers into the plume exposure pathway EPZ should demonstrate a capability to meet the criterion based on their emergency plans and procedures. Responsible OROs should 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. As appropriate, OROs should demonstrate the capability to make decisions on the distribution and administration of KI, as a protective measure, based on the ORO's plan and/or procedures or projected thyroid dose compared with the established protective action guides (PAGs) for KI administration.

State of West Virginia Negotiated Extent-of-Play

All activities will be based on the ORO's plans and procedures and completed as they would be in an actual emergency. The capabilities of excess exposure above pre-authorized levels and KI distribution format to emergency workers may be demonstrated through interview.

Locations Evaluated

WV EOC, WV FMT, Hancock County EOC

Outstanding Issues

Issue 03-06-2a1-P-02 has been corrected in revision of WV REP Plan.

EVALUATION AREA 2: PROTECTIVE ACTION DECISION-MAKING

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

Criterion 2.b.1: Appropriate protective action recommendations are based on available information on plant conditions, field monitoring data, and licensee and ORO dose projections, as well as knowledge of on-site and off-site environmental conditions. (NUREG-0654/FEMA REP-1, I10 and Supplement 3.)

Intent

This sub-element is derived from NUREG-0654/FEMA REP-1, which indicates that OROs have the capability to independently project integrated dose from exposure rates or other information and compare the estimated dose savings with the protective action guides. OROs have the capability to choose, among a range of protective actions, those most appropriate in a given emergency situation. OROs base these choices on protective action guides (PAGs) from the ORO's plans and procedures, or EPA 400-R-92-001 and other criteria, such as, plant conditions, licensee protective action recommendations, coordination of protective action decisions with other political jurisdictions (e.g. other affected OROs), availability of appropriate in-place shelter, weather conditions, evacuation time estimates, and situations that create higher than normal risk from evacuation.

Extent-of-Play

During the initial stage of the emergency response, following notification of plant conditions that may warrant offsite protective actions, the ORO should demonstrate the capability to use appropriate means, described in the plan and/or procedures, to develop protective action recommendations (PARs) for decision-makers based on available information and recommendations from the licensee and field monitoring data, if available.

When release and meteorological data are provided by the licensee, the ORO also considers these data. The ORO should demonstrate a reliable capability to independently validate dose projections. The types of calculations to be demonstrated depend on the data available and the need for assessments to support the PARs appropriate to the scenario. In all cases, calculation of projected dose should be demonstrated. Projected doses should be related to quantities and units of the PAGs to which they will be compared. PARs should be promptly transmitted to decision-makers in a prearranged format.

Differences greater than a factor of 10 between projected doses by the licensee and the ORO should be discussed with the licensee with respect to the input data and assumptions used, the use of different models, or other possible reasons. Resolution of these differences should be incorporated into the PAR if timely and appropriate. The ORO should demonstrate the capability to use any additional data to refine projected doses and exposure rates and revise the associated PARs.

State of West Virginia Negotiated Extent-of-Play

All activities will be based on the ORO's plans and procedures and completed as they would be in an actual emergency.

Locations Evaluated

WV EOC

Outstanding Issues

None

EVALUATION AREA 2: PROTECTIVE ACTION DECISION-MAKING

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

Criterion 2.b.2: A decision-making process involving consideration of appropriate factors and necessary coordination is used to make protective action decisions (PADs) for the general public (including the recommendation for the use of KI, if ORO policy). (NUREG-0654/FEMA REP-1, A3, C4, C6, D4, J9, J10f, J10m)

Intent

This sub-element is derived from NUREG-0654/FEMA REP-1, which indicates that OROs have the capability to independently project integrated dose from exposure rates or other information and compare the estimated dose savings with the protective action guides. OROs have the capability to choose, among a range of protective actions, those most appropriate in a given emergency situation and base these choices on protective action guides (PAGs) from the ORO's plans and procedures, FRC Reports Numbers 5 and 7 or EPA 400-R-92-001 and other criteria, such as, plant conditions, licensee protective action recommendations, coordination of protective action decisions with other political jurisdictions (e.g. other affected OROs), availability of appropriate in-place shelter, weather conditions, evacuation time estimates, and situations that create higher than normal risk from evacuation.

Extent-Of-Play

OROs should have the capability to make both initial and subsequent PADs. They should demonstrate the capability to make initial PADs in a timely manner appropriate to the situation, based on notification from the licensee, assessment of plant status and releases, and PARs from the utility and ORO staff.

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 should demonstrate the capability to change protective actions as appropriate based on these projections.

If the ORO has determined that KI will be used as a protective measure for the general public under off-site plans, then the ORO should demonstrate the capability to make decisions on the distribution and administration of KI as a protective measure for the general public to supplement shelter and evacuation protective actions. This decision should be based on the ORO's plan and/or procedures or projected thyroid dose compared with the established PAG for KI administration. The KI decision-making process should involve close coordination with appropriate assessment and decision-making staff.

If more than one ORO is involved in decision-making, OROs should communicate and coordinate PADs with affected OROs. OROs should demonstrate the capability to communicate the contents of decisions to the affected jurisdictions.

State of West Virginia Negotiated Extent-of-Play

All activities will be based on the ORO's plans and procedures and completed as they would be in an actual emergency. West Virginia coordinates development of PADs with Hancock County, Ohio, and Pennsylvania, but does not always choose the same PAD as another state.

Locations Evaluated

WV EOC, Hancock County EOC

Outstanding Issues

None

EVALUATION AREA 2: PROTECTIVE ACTION DECISION-MAKING

Sub-element 2.c - Protective Action Decisions Consideration for the Protection of Special Populations

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, D4, J9, J10d, J10e.)

Intent

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

Extent-Of-Play

Usually, it is appropriate to implement evacuation in areas where doses are projected to exceed the lower end of the range of PAGs, except for situations where there is a high-risk environment or where high-risk groups (e.g., the immobile or infirm) are involved: In these cases, examples of factors that should be considered are weather conditions, shelter availability, Evacuation Time Estimates, availability of transportation assets, risk of evacuation vs. risk from the avoided dose, and precautionary school evacuations. In situations where an institutionalized population cannot be evacuated, the administration of KI should be considered by the OROs.

State of West Virginia Negotiated Extent-of-Play

All activities will be based on the ORO's plans and procedures and completed as they would be in an actual emergency. PADs for special populations may be demonstrated through interview with EOC staff.

Locations Evaluated

WV EOC, Hancock County EOC

Outstanding Issues

None

EVALUATION AREA 3: PROTECTIVE ACTION IMPLEMENTATION

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

Criterion 3.a.1: The OROs issue appropriate dosimetry, KI, and procedures, and manage radiological exposure to emergency workers in accordance with the plans and 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, J10e, K3a, K3b, K4)

Intent

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

Extent-Of-Play

OROs must demonstrate the capability to provide emergency workers (including supplemental resources) appropriate direct-reading and permanent record dosimetry, dosimetry chargers, KI and instructions on the use of dosimetry to emergency workers. For evaluation purposes, appropriate direct-reading dosimetry is defined as dosimetry that allows individual(s) to read the administrative reporting limits (that are pre-established at a level low enough to consider subsequent calculation of Total Effective Dose Equivalent) and maximum exposure limits (for those emergency workers involved in life saving activities) contained in the OROs plans and procedures.

Each emergency worker must have the basic knowledge of radiation exposure limits as specified in the ORO's plan and/or procedures. If supplemental resources are used, they must be provided with just-in-time training to ensure basic knowledge of radiation exposure control. Emergency workers must demonstrate procedures to monitor and record dosimeter readings and to manage radiological exposure control.

During a plume phase exercise, emergency workers must demonstrate the procedures to be followed when administrative exposure limits and turn-back values are reached. The emergency worker must report accumulated exposures during the exercise as indicated in the plans and procedures. OROs must demonstrate the actions described in the plan and/or procedures by determining whether to replace the worker, to authorize the worker to incur additional exposures

or to take other actions. If exercise play does 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 and at what exposure levels. Emergency workers may use any available resources (e.g. written procedures and/or co-workers) in providing responses.

Although it is desirable for all emergency workers to each have a direct-reading dosimeter, there may be situations where team members will be in close proximity to each other during the entire mission and adequate control of exposure can be affected for all members of the team by one dosimeter worn by the team leader. Emergency workers who are assigned to low exposure rate areas, e.g., at reception centers, counting laboratories, emergency operations centers, and communications centers, may have individual direct-reading dosimeters or they may be monitored by dosimeters strategically placed in the work area. It should be noted that, even in these situations, each team member must still have their own permanent record dosimeter.

OROs may have administrative limits lower than EPA-400-R-92-001 dose limits for emergency workers performing various services (e.g., lifesaving, protection of valuable property, all activities). OROs must ensure that the process used to seek authorization for exceeding dose limits does not negatively impact the capability to respond to an incident where lifesaving and/or protection of valuable property may require an urgent response.

OROs must demonstrate the capability to accomplish distribution of KI to emergency workers consistent with decisions made. OROs must have the capability to develop and maintain lists of emergency workers who have ingested KI, including documentation of the date(s) and time(s) they did so. Ingestion of KI recommended by the designated ORO health official is voluntary. For evaluation purposes, the actual ingestion of KI shall not be performed. OROs must demonstrate the capability to formulate and disseminate instructions on using KI for those advised to take it. Emergency workers must demonstrate basic knowledge of procedures for using KI whether or not the scenario drives the implementation of KI use. This can be accomplished by an interview with the evaluator.

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

State of West Virginia Negotiated Extent-of-Play

All activities will be based on the ORO's plans and procedures and completed as they would be in an actual emergency except field locations where Dosimetry/KI "Training Kits" may be used for demonstration purposes on the use of dosimetry. Dosimetry/KI Training Kits will be utilized at the Field Locations for demonstration purposes. Sufficient on-site exercise quantities might not be provided for all ORO staffing, but sufficient quantities will be verified through inventory list.

Locations Evaluated

WV FMT, Hancock County Field Locations, Hancock County EOC

Outstanding Issues

None

EVALUATION AREA 3: PROTECTIVE ACTION IMPLEMENTATION

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

Criterion 3.b.1: KI and appropriate instructions are available if a decision to recommend use of KI is made. Appropriate record keeping of the administration of KI for institutionalized individuals is maintained. (NUREG-0654/FEMA REP-1, J10e, J10f)

Intent

This sub-element is derived from NUREG-0654/FEMA REP-1, which provides that OROs should have the capability to provide radioprotective drugs for emergency workers, institutionalized individuals, and, if in the plan and/or 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 emergency workers and institutionalized individuals, the provision of KI to the general public is an ORO option, reflected in ORO's plans and procedures. Provisions should include the availability of adequate quantities, storage, and means of the distribution of radioprotective drugs.

Extent-Of-Play

OROs must demonstrate the capability to make KI available to institutionalized individuals and, where provided for in the ORO plan and/or procedures, to members of the general public. OROs must demonstrate the capability to accomplish distribution of KI consistent with decisions made. OROs must have the capability to develop and maintain lists of institutionalized individuals who have ingested KI, including documentation of the date(s) and time(s) they were instructed to ingest KI. Ingestion of KI recommended by the designated ORO health official is voluntary. For evaluation purposes, the actual ingestion of KI shall not be performed. OROs must demonstrate the capability to formulate and disseminate instructions on using KI for those advised to take it.

If a recommendation is made for the general public to take KI, appropriate information must be provided to the public by the means of notification specified in the ORO's plans/procedures.

Assessment of this Demonstration Criterion may be accomplished during a full-scale, functional or tabletop exercise. Other means may include drills, seminars or training activities that would fully demonstrate technical proficiency. All activities must be based on the ORO's plans/procedures and completed as they would be in an actual emergency, unless noted above or otherwise specified in the Extent-of-Play Agreement.

State of West Virginia Negotiated Extent-of-Play

All activities will be based on the ORO's plans and procedures and completed as they would be in an actual emergency. The State decision regarding KI can include administration to targeted or general populations or no administration of KI. The actual ingestion of KI is voluntary for each directed individual. A basic knowledge of procedures for KI can be demonstrated to evaluators through interview. KI will not be ingested for the purposes of exercise; ingestion of KI will be simulated.

Locations Evaluated

Hancock County EOC

Outstanding Issues

None

EVALUATION AREA 3: PROTECTIVE ACTION IMPLEMENTATION

Sub-element 3.c – Implementation of Protective Actions for Special Populations

Criterion 3.c.1: Protective action decisions are implemented for persons with disabilities and access/functional needs other than schools within areas subject to protective actions. (NUREG-0654/FEMA REP-1, J10c, J10d, J10e, J10g.)

Intent

This sub-element is derived from NUREG-0654/FEMA REP-1, which provides that OROs should have the capability to implement protective action decisions, including evacuation and/or sheltering, for all special populations. Focus is on those special populations that are (or potentially will be) affected by a radiological release from a nuclear power plant.

Extent-Of-Play

Applicable OROs should demonstrate the capability to alert and notify (e.g., provide protective action recommendations and emergency information and instructions) special populations (hospitals, nursing homes, correctional facilities, mobility impaired individuals, transportation dependent, etc). OROs should demonstrate the capability to provide for the needs of special populations in accordance with the ORO's plans and procedures.

Contact with special populations and reception facilities may be actual or simulated, as agreed to in the Extent-of-Play. Some contacts with transportation providers should be actual, as negotiated in the Extent-of-Play. All actual and simulated contacts should be logged.

State of West Virginia Negotiated Extent-of-Play

All activities will be based on the ORO's plans and procedures and completed as they would be in an actual emergency. Special Needs location listings will be available at Hancock County EOC and Chester FD and will be available to evaluators for review only (these lists may not be removed from area due to HIPPA restrictions).

Locations Evaluated

Hancock County EOC and Route Alerting

Outstanding Issues

None

EVALUATION AREA 3: PROTECTIVE ACTION IMPLEMENTATION

Sub-element 3.c – Implementation of Protective Actions for Special Populations

Criterion 3.c.2: OROs/School officials implement protective actions for schools. (NUREG-0654/FEMA REP-1, J10c, J10d, J10e, J10g)

Intent

This sub-element is derived from NUREG-0654/FEMA REP-1, which provides that OROs should have the capability to implement protective action decisions, including evacuation and/or sheltering, for all special populations which includes persons with disabilities and access/functional needs. Focus is on those special population groups that are (or potentially will be) affected by a radiological release from a nuclear power plant.

Extent-Of-Play

Applicable OROs should demonstrate the capability to alert and notify all public school systems/districts, licensed day care centers, and participating private schools within the emergency planning zone of emergency conditions that are expected to or may necessitate protective actions for students.

In accordance with plans and/or procedures, OROs and/or officials of participating public and private schools and licensed day care centers should demonstrate the capability to make and implement prompt decisions on protective actions for students. Officials should demonstrate that the decision making process for protective actions considers (e.g., either accepts automatically or gives heavy weight to) protective action recommendations made by ORO personnel, the emergency classification level (ECL) at time which these recommendations are received, preplanned strategies for protective actions for that ECL, and the location of students at the time (e.g., whether the students are still at home, en route to the school, or at the school).

Implementation of protective actions should be completed subject to the following provisions: At least one school in each affected school system or district, as appropriate, needs to demonstrate the implementation of protective actions. The implementation of canceling the school day, dismissing early, or sheltering should be simulated by describing to evaluators the procedures that would be followed. If evacuation is the implemented protective action, all activities to coordinate and complete the evacuation of students to reception centers, congregate care centers, or host schools may actually be demonstrated or accomplished through an interview process. If accomplished through an interview process, appropriate school personnel including decision making officials (e.g., superintendent/principal, transportation director/bus dispatcher), and at least one bus driver (and the bus driver's escort, if applicable) must be available to demonstrate knowledge of their role(s) in the evacuation of school children. Communications capabilities between school officials and the buses, if required by plans and/or procedures, should be verified.

Officials of the participating school(s) or school system(s) must demonstrate the capability to develop and provide timely information to OROs for use in messages to parents, the general public, and the media on the status of protective actions for schools.

State of West Virginia Negotiated Extent-of-Play

All activities will be based on the ORO's plans and procedures and completed as they would be in an actual emergency except this criterion will be demonstrated out-of-sequence on May 9th, 2012. Demonstration of implementation will be completed through interview.

Locations Evaluated

Hancock County Schools (New Manchester Elementary)

Outstanding Issues

None

EVALUATION AREA 3: PROTECTIVE ACTION IMPLEMENTATION

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

Criterion 3.d.1: Appropriate traffic and access control is established. Accurate instructions are provided to traffic and access control personnel. (NUREG-0654/FEMA REP-1, A3, C1, C4, J10g, J10j)

Intent

This sub-element is derived from NUREG-0654/FEMA REP-1, which provides that OROs have the capability to implement protective action plans, 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.

Extent-Of-Play

OROs should demonstrate the capability to select, establish, and staff appropriate traffic and access control points consistent with protective action decisions (for example, evacuating, sheltering, and relocation), in a timely manner. OROs should demonstrate the capability to provide instructions to traffic and access control staff on actions to take when modifications in protective action strategies necessitate changes in evacuation patterns or in the area(s) where access is controlled.

Traffic and access control staff should demonstrate accurate knowledge of their roles and responsibilities. This capability may be demonstrated by actual deployment or by interview in accordance with the Extent-of-Play agreement.

In instances where OROs lack authority necessary to control access by certain types of traffic (rail, water, and air traffic), they should demonstrate the capability to contact the State or Federal agencies with authority to control access.

State of West Virginia Negotiated Extent-of-Play

All activities will be based on the ORO's plans and procedures and completed, as they would be in an actual emergency. Staffing of Traffic and Access Control Points will be simulated. Law Enforcement will be interviewed in EOC to evaluate ability to provide appropriate instructions. Ability to control rail, water, and air traffic will be demonstrated through interview.

Locations Evaluated

Hancock County EOC.

Outstanding Issues

None

EVALUATION AREA 3: PROTECTIVE ACTION IMPLEMENTATION

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

Criterion 3.d.2: Impediments to evacuation are identified and resolved. (NUREG-0654/FEMA REP-1, J10k.)

Intent

This sub-element is derived from NUREG-0654/FEMA REP-1, which provides that OROs have the capability to implement protective action plans, 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.

Extent-Of-Play

OROs should demonstrate the capability, as required by the scenario, to identify and take appropriate actions concerning impediments to evacuation. Actual dispatch of resources to deal with impediments, such as wreckers, need not be demonstrated; however, all contacts, actual or simulated should be logged. The impediment must occur during the evacuation and be on an evacuation route such that re-routing of traffic is required, triggering decision-making and coordination with the JIC to communicate the alternate route to evacuees leaving the area.

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

State of West Virginia Negotiated Extent-of-Play

All activities will be based on the ORO's plans and procedures and completed as they would be in an actual emergency. Law Enforcement Officers in the EOC will be evaluated on this criterion through interview.

Locations Evaluated

Hancock County EOC

Outstanding Issues

None

EVALUATION AREA 4: FIELD MEASUREMENT AND ANALYSIS

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

Criterion 4.a.2: Field teams are managed to obtain sufficient information to help characterize the release and to control radiation exposure. (NUREG-0654/FEMA REP-1, C1, H12, I7, I8, I11, J10a).

Intent

This sub-element is derived from NUREG-0654/FEMA REP-1, which provides that OROs should have the capability to deploy field teams 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, NUREG-0654/FEMA REP-1 indicates that OROs should have the capability to use field teams within the plume emergency planning zone to measure airborne radioiodine in the presence of noble gases and to measure radioactive particulate material in the airborne plume.

In the event of an accident at a nuclear power plant, the possible release of radioactive material may pose a risk to the nearby population and environment. Although accident assessment methods are available to project the extent and magnitude of a release, these methods are subject to large uncertainties. During an accident, it is important to collect field radiological data in order to help characterize any radiological release. This does not imply that plume exposure projections should be made from the field data. Adequate equipment and procedures are essential to such field measurement efforts.

Extent-Of-Play

Responsible OROs should demonstrate the capability to brief teams on predicted plume location and direction, travel speed, and exposure control procedures before deployment.

Field measurements are needed to help characterize the release and to support the adequacy of implemented protective actions or to be a factor in modifying protective actions. Teams should be directed to take measurements in such locations, at such times to provide information sufficient to characterize the plume and impacts.

If the responsibility to obtain peak measurements in the plume has been accepted by license field monitoring teams, with concurrence from OROs, there is no requirement for these measurements to be repeated by State and local monitoring teams. If the license teams do not obtain peak measurements in the plume, it is the ORO's decision as to whether peak measurements are necessary to sufficiently characterize the plume. The sharing and coordination of plume measurement information among all field teams (licensee, federal, and ORO) is essential. Coordination concerning transfer of samples, including a chain-of-custody form, to a radiological laboratory should be demonstrated.

OROs should use Federal resources as identified in the Federal Radiological Emergency Response Plan (FRERF), and other resources (e.g., compacts, etc), if available. Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

State of West Virginia Negotiated Extent-of-Play

All activities will be demonstrated in accordance with established plans and procedures as they would in an actual emergency.

Locations Evaluated

WV EOC, WV FMT, Hancock County EOC

Outstanding Issues

03-10-4a2-P-08 (FMT forms now have a chain-of-custody section to provide for sample integrity)

EVALUATION AREA 4: FIELD MEASUREMENT AND ANALYSIS

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

Criterion 4.a.3: Ambient radiation measurements are made and recorded at appropriate locations, and radioiodine and particulate samples are collected. Teams will move to an appropriate low background location to determine whether any significant (as specified in the plan and/or procedures) amount of radioactivity has been collected on the sampling media. (NUREG-0654/FEMA REP-1,C1, H12, I8, I9, J10a)

Intent

This sub-element is derived from NUREG-0654/FEMA REP-1, which provides that OROs should have the capability to deploy field teams 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, NUREG-0654/FEMA REP-1 indicates that OROs should have the capability to use field teams within the plume emergency planning zone to measure airborne radioiodine in the presence of noble gases and to measure radioactive particulate material in the airborne plume.

In the event of an accident at a nuclear power plant, the possible release of radioactive material may pose a risk to the nearby population and environment. Although accident assessment methods are available to project the extent and magnitude of a release, these methods are subject to large uncertainties. During an accident, it is important to collect field radiological data in order to help characterize any radiological release. This does not imply that plume exposure projections should be made from the field data. Adequate equipment and procedures are essential to such field measurement efforts.

Extent-Of-Play

Field teams should demonstrate the capability to report measurements and field data pertaining to the measurement of airborne radioiodine and particulates to the field team coordinator, dose assessment, or other appropriate authority. If samples have radioactivity significantly above background, the appropriate authority should consider the need for expedited laboratory analyses of these samples. OROs should share data in a timely manner with all appropriate OROs. The methodology, including contamination control, instrumentation, preparation of samples, and a chain-of-custody form for transfer to a laboratory, will be in accordance with the ORO plan and/or procedures.

OROs should use Federal resources as identified in the FRERF, and other resources (e.g., compacts, etc), if available. Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

State of West Virginia Negotiated Extent-of-Play

All activities will be based on the ORO's plans and procedures and completed as they would be in an actual emergency except where WV does not have a laboratory (analysis is provided via the State of Ohio's Radiological Lab). The interaction for this criterion was demonstrated during the 2010 Ingestion Exercise with Sample Reception Site.

Locations Evaluated

WV FMT

Outstanding Issues

None

EVALUATION AREA 5: EMERGENCY NOTIFICATION & PUBLIC INFORMATION

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

Criterion 5.a.1: Activities associated with primary alerting and notification of the public are completed in a timely manner following the initial decision by authorized offsite emergency officials to notify the public of an emergency situation. The initial instructional message to the public must include as a minimum the elements required by current REP guidance. (NUREG-0654/FEMA REP-1, E5, E6, E7)

Intent

This sub-element is derived from NUREG-0654/FEMA REP-1, which provides that OROs should have the capability to provide prompt instructions to the public within the plume pathway EPZ. Specific provisions addressed in this sub-element are derived from the FEMA-REP-10, "Guide for the Evaluation of Alert and Notification systems for Nuclear Power Plants."

Extent-Of-Play

Responsible OROs should 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 pathway EPZ. Following the decision to activate the alert and notification system, in accordance with the ORO's plan and/or procedures, completion of system activation should be accomplished in a timely manner **(will not be subject to specific time requirements)** for primary alerting/notification. The initial message should include the elements required by current FEMA REP guidance.

For exercise purposes, timely is defined as "the responsible ORO personnel/ representatives demonstrate actions to disseminate the appropriate information/ instructions with a sense of urgency and without undue delay." If message dissemination is to be identified as not having been accomplished in a timely manner, the evaluator(s) will document a specific delay or cause as to why a message was not considered timely.

Procedures to broadcast the message should be fully demonstrated as they would in an actual emergency up to the point of transmission. Broadcast of the message(s) or test messages is not required. The alert signal activation may be simulated. However, the procedures should be demonstrated up to the point of actual activation.

The capability of the primary notification system to broadcast an instructional message on a 24-hour basis should be verified during an interview with appropriate personnel from the primary notification system.

State of West Virginia Negotiated Extent-of-Play

All activities will be based on the ORO's plans and procedures and completed as they would be in an actual emergency. Siren activation will be simulated.

Locations Evaluated

Hancock County EOC

Outstanding Issues

None

EVALUATION AREA 5: EMERGENCY NOTIFICATION & PUBLIC INFORMATION

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

Criterion 5.a.3: Backup alert and notification of the public is completed within a reasonable time following the detection by the ORO of a failure of the primary alert and notification system. (NUREG-0654/FEMA REP-1, E6, Appendix 3.B.2.c)

Intent

This sub-element is derived from NUREG-0654/FEMA REP-1, which provides that OROs should have the capability to provide prompt instructions to the public within the plume pathway EPZ. Specific provisions addressed in this sub-element are derived from the Nuclear Regulatory Commission (NRC) regulations (10 CFR Part 50, Appendix E.IV.D.) and FEMA-REP-10, "Guide for the Evaluation of Alert and Notification systems for Nuclear Power Plants."

Extent-Of-Play

OROs with FEMA-approved exception areas (identified in the approved Alert and Notification System Design Report) 5-10 miles from the nuclear power plant should demonstrate the capability to accomplish primary alerting and notification of the exception area(s) within 45 minutes following the initial decision by authorized offsite emergency officials to notify the public of an emergency situation. The 45-minute clock will begin when the OROs make the decision to activate the alert and notification system for the first time for a specific emergency situation. The initial message should, at a minimum, include: a statement that an emergency exists at the plant and where to obtain additional information.

For exception area alerting, at least one route needs to be demonstrated and evaluated. The selected routes should vary from exercise to exercise. However, the most difficult route should be demonstrated at least once every six years. All alert and notification activities along the route should be simulated (e.g., the message that would actually be used is read for the evaluator, but not actually broadcast) as agreed upon in the Extent-of-Play. Actual testing of the mobile public address system will be conducted at some agreed upon location.

Backup alert and notification of the public should be completed within 45 minutes following the detection by the ORO of a failure of the primary alert and notification system. Backup route alerting needs only be demonstrated and evaluated, in accordance with the ORO's plan and/or procedures and the Extent-of-Play agreement, if the exercise scenario calls for failure of any portion of the primary system(s), or if any portion of the primary system(s) actually fails to function. If demonstrated, only one route needs to be selected and demonstrated. All alert and notification activities along the route should be simulated (e.g., the message that would actually be used is read for the evaluator, but not actually broadcast) as agreed upon in the Extent-of-Play. Actual testing of the Public Address system will be conducted at some agreed upon location.

State of West Virginia Negotiated Extent-of-Play

All activities will be based on the ORO's plans and procedures and completed as they would be in an actual emergency. Route Alerting will be demonstrated by Chester FDs in which one run will be completed with alert and notification activities simulated, but not broadcast. Actual testing of the mobile public address system may be conducted at local fire department station.

Locations Evaluated

Hancock County EOC and Route Alerting

Outstanding Issues

None

EVALUATION AREA 5: EMERGENCY NOTIFICATION & PUBLIC INFORMATION

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

Criterion 5.b.1: OROs provide accurate subsequent emergency information and instructions to the public and the news media in a timely manner. (NUREG-0654/FEMA REP-1, E5, E7, G3a, G4a, G4c)

Intent

This sub-element is derived from NUREG-0654/FEMA REP-1, which provides that OROs should have the capability to disseminate to the public appropriate emergency information and instructions including any recommended protective actions. In addition, NUREG-0654/FEMA REP-1 provides that OROs should ensure 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. NUREG-0654/FEMA REP-1 also provides that a system be available for dealing with rumors. This system will hereafter be known as the public inquiry hotline.

Extent-Of-Play

Subsequent emergency information and instructions should be provided to the public and the media in a timely manner **(will not be subject to specific time requirements)**. For exercise purposes, timely is defined as "the responsible ORO personnel/representatives demonstrate actions to disseminate the appropriate information/instructions with a sense of urgency and without undue delay." If message dissemination is to be identified as not having been accomplished in a timely manner, the evaluator(s) will document a specific delay or cause as to why a message was not considered timely.

The OROs should ensure that emergency information and instructions are consistent with protective action decisions made by appropriate officials. The emergency information should contain all necessary and applicable instructions (e.g., evacuation instructions, evacuation routes, reception center locations, what to take when evacuating, information concerning pets, shelter-in-place instructions, information concerning protective actions for schools and special populations, public inquiry telephone number, etc.) to assist the public in carrying out protective action decisions provided to them. OROs should demonstrate the capability to use language that is clear and understandable to the public within both the plume and ingestion pathway EPZs. This includes demonstration of the capability to use familiar landmarks and boundaries to describe protective action areas.

The emergency information should be all-inclusive by including previously identified protective action areas that are still valid as well as new areas. The OROs should demonstrate the capability to ensure that emergency information that is no longer valid is rescinded and not repeated by broadcast media. In addition, the OROs should demonstrate the capability to ensure that current emergency information is repeated at pre-established intervals in accordance with the plan and/or procedures.

OROs should demonstrate the capability to develop emergency information in a non-English language when required by the plan and/or procedures.

If ingestion pathway measures are exercised, OROs should demonstrate that a system exists for rapid dissemination of ingestion pathway information to pre-determined individuals and businesses in accordance with the ORO's plan and/or procedures.

OROs should demonstrate the capability to provide timely, accurate, concise, and coordinated information to the news media for subsequent dissemination to the public. This would include demonstration of the capability to conduct timely and pertinent media briefings and distribute media releases as the situation warrants. The OROs should demonstrate the capability to respond appropriately to inquiries from the news media. All information presented in media briefings and media releases should be consistent with protective action decisions and other emergency information provided to the public. Copies of pertinent emergency information (e.g., EAS messages and media releases) and media information kits should be available for dissemination to the media.

OROs should demonstrate that an effective system is in place for dealing with calls to the public inquiry hotline. Hotline staff should demonstrate the capability to provide or obtain accurate information for callers or refer them to an appropriate information source. Information from the hotline staff, including information that corrects false or inaccurate information when trends are noted, should be included, as appropriate, in emergency information provided to the public, media briefings, and/or media releases.

State of West Virginia Negotiated Extent-of-Play

All activities will be based on the ORO's plans and procedures and completed as they would be in an actual emergency except West Virginia Public Information Officers (PIOs) will conduct one briefing at the WV EOC and Beaver Valley JPIC any time after an Alert or greater is declared. Hancock County EOC will conduct one briefing any time after an Alert or greater is declared. Hancock County is represented at the Beaver Valley JPIC by the West Virginia PIO. PIOs will identify rumors and address trends.

Locations Evaluated

WV EOC, Hancock County EOC, Beaver Valley JPIC

Outstanding Issues:

Issue 03-10-5b1-P-07 (Planning errors have been corrected in revised plans).

EVALUATION AREA 6: SUPPORT OPERATION/FACILITIES

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

Criterion 6.a.1: The reception center facility has appropriate space, adequate resources, and trained personnel to provide monitoring, decontamination, and registration of evacuees. (NUREG-0654/FEMA REP-1, A3, C4, J10h, J12)

Intent

This sub-element is derived from NUREG-0654/FEMA REP-1, which provides that OROs have the capability to implement radiological monitoring and decontamination of evacuees and emergency workers, while minimizing contamination of the facility, and registration of evacuees at reception centers.

Extent-Of-Play

Radiological monitoring, decontamination, and registration facilities for evacuees must be set up and demonstrated as they would be in an actual emergency or as indicated in the Extent-of-Play Agreement. OROs conducting this demonstration must have one-third of the resources (e.g., monitoring teams/instrumentation/portal monitors) available at the facility(ies) as necessary to monitor 20 percent of the population within a 12-hour period. This would include adequate space for evacuees' vehicles. Availability of resources can be demonstrated with valid documentation (e.g., MOU/LOA, etc.) reflecting how necessary equipment would be procured for the location. Plans/procedures must indicate provisions for service animals.

Before using monitoring instrument(s), the monitor(s) must demonstrate the process of checking the instrument(s) for proper operation. Staff responsible for the radiological monitoring of evacuees must demonstrate the capability to attain and sustain, within about 12 hours, a monitoring productivity rate per hour needed to monitor the 20 percent EPZ population planning base. The monitoring productivity rate per hour is the number of evacuees that can be monitored, per hour, by the total complement of monitors using an appropriate procedure. For demonstration of monitoring, decontamination, and registration capabilities, a minimum of six evacuees must be monitored per station using equipment and procedures specified in the plans/procedures. The monitoring sequences for the first six simulated evacuees per monitoring team will be timed by the evaluators to determine whether the 12-hour requirement can be met.

OROs must demonstrate the capability to register evacuees upon completion of the monitoring and decontamination activities. The activities for recording radiological monitoring and, if necessary, decontamination must include establishing a registration record consisting of the evacuee's name, address, results of monitoring, and time of decontamination (if any), or as otherwise designated in the plan and/or procedures. Audio recorders, camcorders, or written records are all acceptable means for registration.

Monitoring activities shall not be simulated. Monitoring personnel must explain use of trigger/action levels for determining the need for decontamination. They must also explain the procedures for referring any evacuees who cannot be adequately decontaminated for assessment and follow-up in accordance with the ORO's plans/procedures. Contamination of the evacuee(s) will be determined by controller inject and not simulated with any low-level radiation source. All activities must be based on the ORO's plans/procedures and completed as they would be in an actual emergency, unless noted above or otherwise specified in the Extent-of-Play Agreement.

Decontamination of evacuees may be simulated and conducted by interview. Provisions for separate showering and same-sex decontamination must be demonstrated or explained. The staff must demonstrate provisions for limiting the spread of contamination. Provisions could include floor coverings, signs, and appropriate means (e.g., partitions, roped-off areas) to separate uncontaminated from potentially contaminated areas. Provisions must also exist to separate contaminated and uncontaminated evacuees, provide changes of clothing for those with contaminated clothing; and store contaminated clothing and personal belongings to prevent further contamination of evacuees or facilities. In addition, for any evacuee found to be contaminated, procedures must be discussed concerning handling of potential contamination of vehicles and personal belongings. Waste water from decontamination operations does not need to be collected.

Individuals who have completed monitoring (and decontamination, if needed) must have means (e.g., hand stamp, sticker, bracelet, form, etc) indicating that they, and their service animals and vehicles, where applicable, have been monitored, cleared, and found to have no contamination or contamination below the trigger/action level.

In accordance with plans/procedures, individuals found to be clean after monitoring do not need to have their vehicle monitored. These individuals do not require confirmation that their vehicle is free from contamination prior to entering the congregate care areas.

However, those individuals who are found to be contaminated and are then decontaminated will have their vehicles monitored and decontaminated (if applicable) and do require confirmation that their vehicle is free from contamination prior to entering the congregate care areas.

State of West Virginia Negotiated Extent-of-Play

These activities will be based on the ORO's plans and procedures and completed, as they would be in an actual emergency. Evaluators may interview personnel to determine appropriate facilities and personnel are available. Actual registration of evacuees is completed in care center after processing through Decon and Reception center.

Locations Evaluated

Reception Center/Emergency Worker Decontamination Center

Outstanding Issues

None

EVALUATION AREA 6: SUPPORT OPERATION/FACILITIES

Sub-element 6.b – Monitoring and Decontamination of Emergency Workers, Emergency Worker Equipment including Vehicles.

Criterion 6.b.1: The facility/ORO has adequate procedures and resources to accomplish of monitoring and decontamination of emergency workers and their equipment and vehicles. (NUREG-0654/FEMA REP-1, K5a, K5b)

Intent

This sub-element is derived from NUREG-0654/FEMA REP-1, which provides that OROs have the capability to implement radiological monitoring and decontamination of emergency worker equipment, including vehicles.

Extent-Of-Play

The monitoring staff must demonstrate the capability to monitor emergency worker personnel and their equipment and vehicles for contamination in accordance with the ORO's plans/procedures.

Specific attention must be given to equipment, including any vehicles that were in contact with contamination. The monitoring staff must demonstrate the capability to make decisions on the need for decontamination of personnel, equipment, and vehicles based on trigger/action levels and procedures stated in the ORO plans/procedures. Monitoring of emergency workers does not have to meet the 12-hour requirement. However, appropriate monitoring procedures must be demonstrated for a minimum of two emergency workers and their equipment and vehicles. Before using monitoring instrument(s), the monitor(s) must demonstrate the process of checking the instrument(s) for proper operation.

The area to be used for monitoring and decontamination must be set up as it would be in an actual emergency, with all route markings, instrumentation, record keeping, and contamination control measures in place. Monitoring procedures must be demonstrated for a minimum of one vehicle. It is generally not necessary to monitor the entire surface of vehicles. However, the capability to monitor areas such as radiator grills, bumpers, wheel wells, tires, and door handles must be demonstrated. Interior surfaces of vehicles that were in contact with contaminated individuals must also be checked.

Decontamination of emergency workers may be simulated and conducted via interview. Provisions for separate showering and same-sex decontamination must be demonstrated or explained. The staff must demonstrate provisions for limiting the spread of contamination. Provisions could include floor coverings, signs, and appropriate means (e.g., partitions, roped-off areas) to separate uncontaminated from potentially contaminated areas. Provisions must also exist to separate contaminated and uncontaminated individuals where applicable; provide changes of clothing for those with contaminated clothing; and store contaminated clothing and personal belongings to prevent further contamination of emergency workers or facilities.

OROs must demonstrate the capability to register emergency workers upon completion of the monitoring and decontamination activities. The activities for recording radiological monitoring and, if necessary, decontamination must include establishing a registration record consisting of the emergency worker's name, address, results of monitoring, and time of decontamination (if any), or as otherwise designated in the plan and/or procedures. Audio recorders, camcorders, or written records are all acceptable means for registration.

Monitoring activities shall not be simulated. Monitoring personnel must explain use of trigger/action levels for determining the need for decontamination. They must also explain the procedures for referring any emergency workers who cannot be adequately decontaminated for assessment and follow-up in accordance with the ORO's plans/procedures. Contamination of the individual(s) will be determined by controller inject and not simulated with any low-level radiation source.

Decontamination capabilities and provisions for vehicles and equipment that cannot be successfully decontaminated may be simulated and conducted by interview. Waste water from decontamination operations does not need to be collected.

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

State of West Virginia Negotiated Extent-of-Play

These activities will be based on the ORO's plans and procedures and completed, as they would be in an actual emergency. Evaluators may interview personnel to determine appropriate facilities and personnel are available.

Locations Evaluated

Emergency Worker Decontamination Center

Outstanding Issues

None

EVALUATION AREA 6: SUPPORT OPERATION/FACILITIES

Sub-element 6.c - Temporary Care of Evacuees

Criterion 6.c.1: Managers of congregate care facilities demonstrate that the centers have resources to provide services and accommodations consistent with American Red Cross planning guidelines. Managers demonstrate the procedures to assure that evacuees have been monitored for contamination and have been decontaminated as appropriate prior to entering congregate care facilities. (NUREG-0654/FEMA REP-1, J10h, J12)

Intent

This sub-element is derived from NUREG-0654/FEMA REP-1, which provides that OROs demonstrate the capability to establish relocation centers in host areas. Congregate care is normally provided in support of OROs by the American Red Cross under existing letters of agreement.

Extent-Of-Play

Under this criterion, demonstration of congregate care centers may be conducted out of sequence with the exercise scenario. The evaluator should conduct a walk-through of the center to determine, through observation and inquiries, that the services and accommodations are consistent with ARC 3031 **In this simulation, it is not necessary to set up operations, as they would be in an actual emergency.** Alternatively, capabilities may be demonstrated by setting up stations for various services and providing those services to simulated evacuees. Given the substantial differences between demonstration and simulation of this criterion, exercise demonstration expectations should be clearly specified in extent-of-play agreements.

Congregate care staff should also 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 may be determined through an interview process.

If operations at the center are demonstrated, material that would be difficult or expensive to transport (e.g., cots, blankets, sundries, and large-scale food supplies) need not be physically available at the facility(ies). However, availability of such items should be verified by providing the evaluator a list of sources with locations and estimates of quantities.

State of West Virginia Negotiated Extent-of-Play

These activities will be based on the ORO's plans and procedures and completed, as they would be in an actual emergency. One (1) Care Center Registration Table and one (1) Health Department Registration Table will be set up. All capabilities will be demonstrated to evaluators through staff interviews/discussion. Sample Kit of KI will be available.

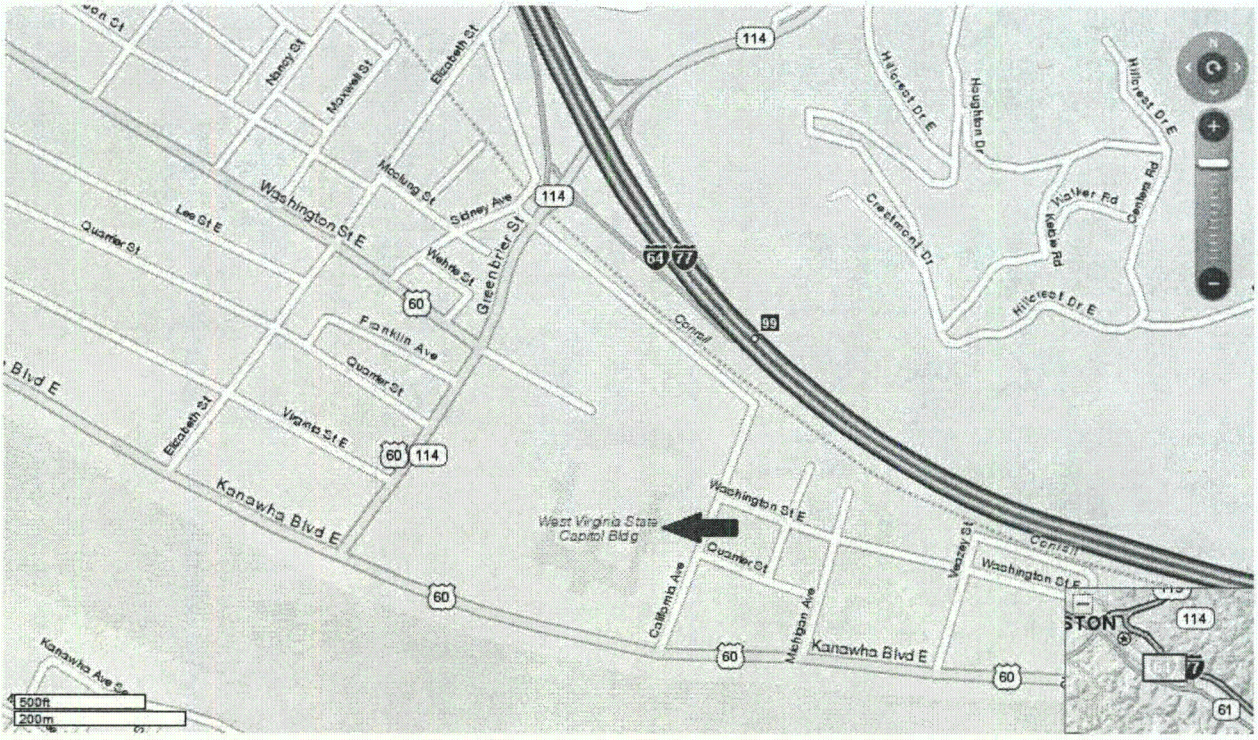
Locations Evaluated

Care Center (Weir High/Middle School Complex)

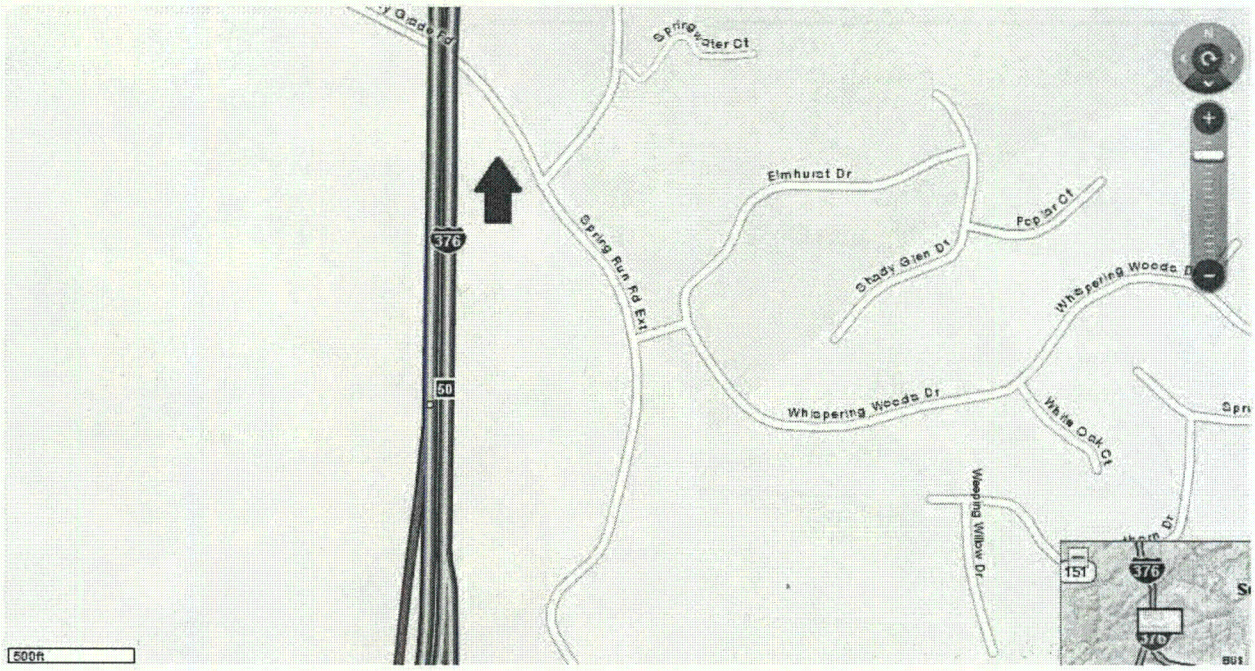
Outstanding Issues

None

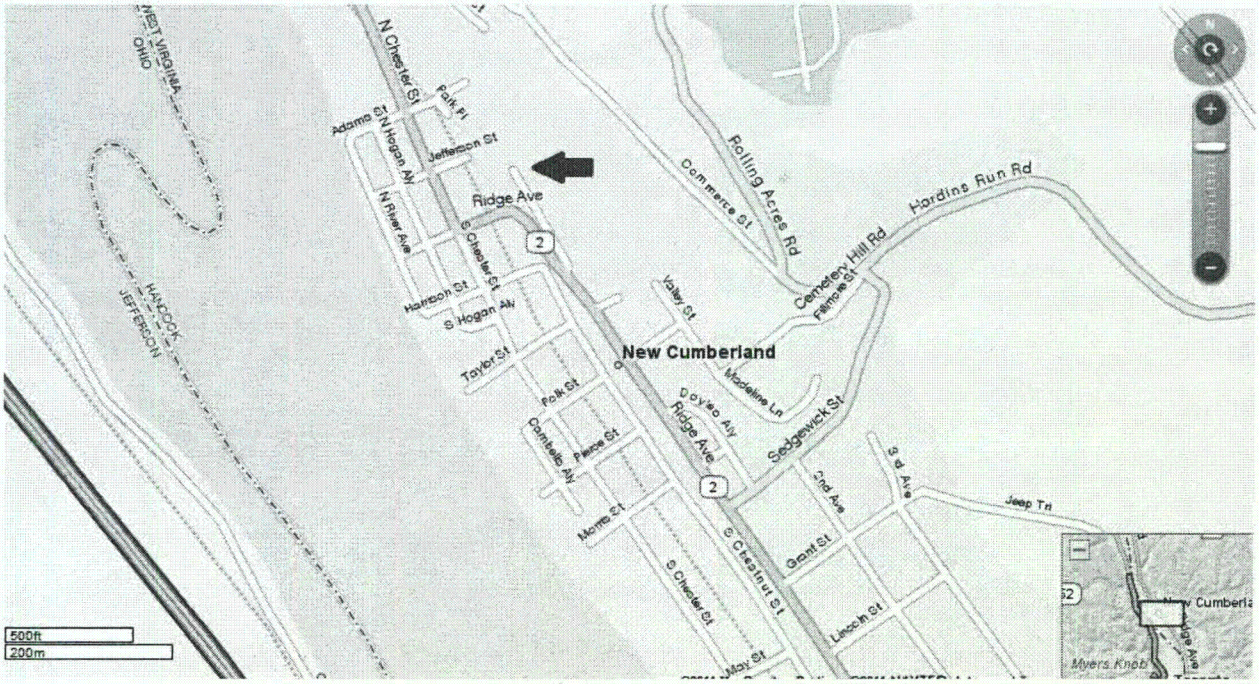
WV EOC Site Map



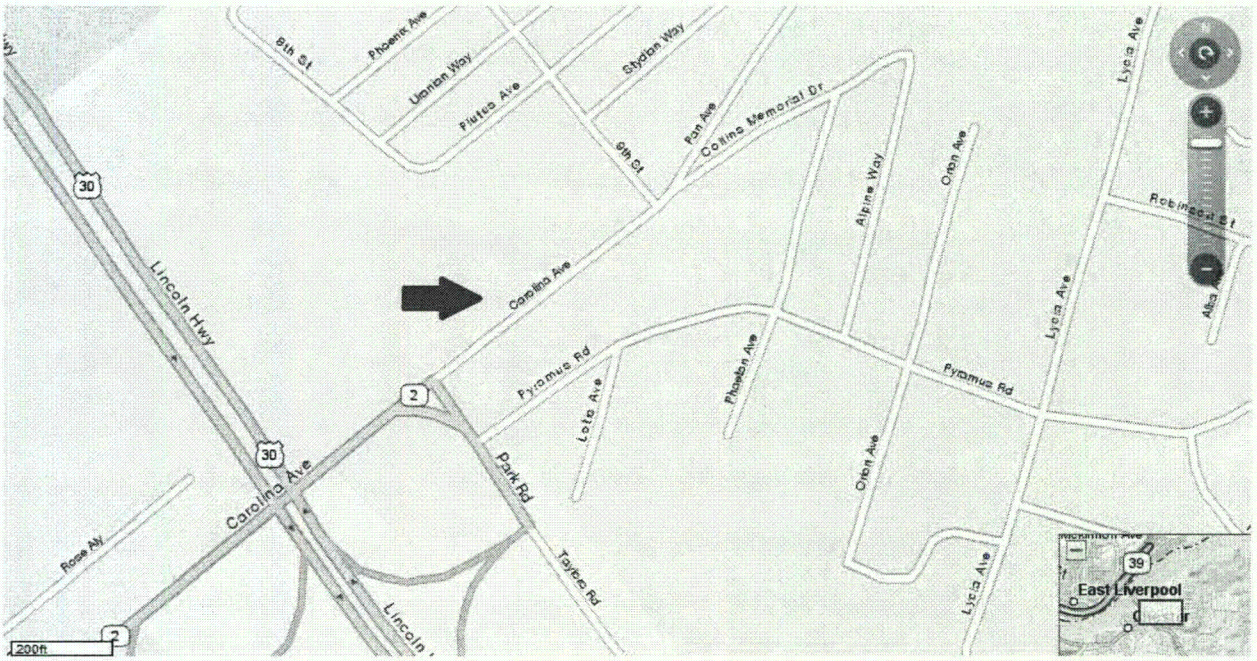
BVPS JPIC Site Map



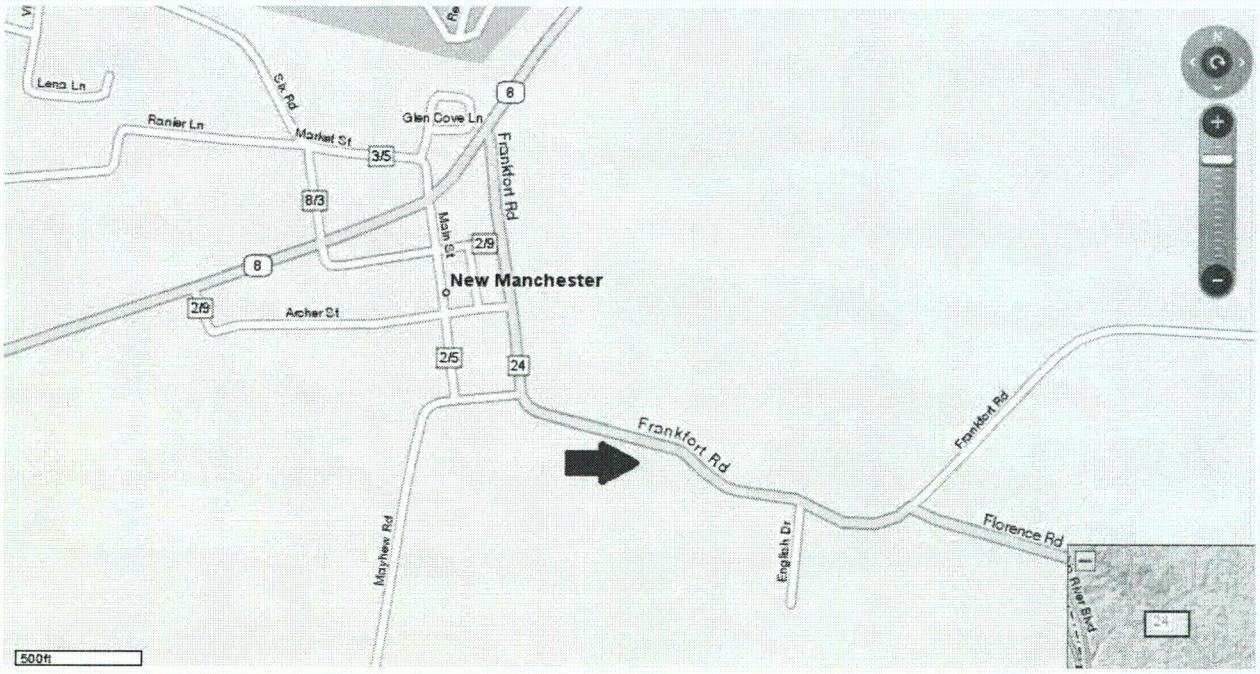
Hancock County EOC Site Map



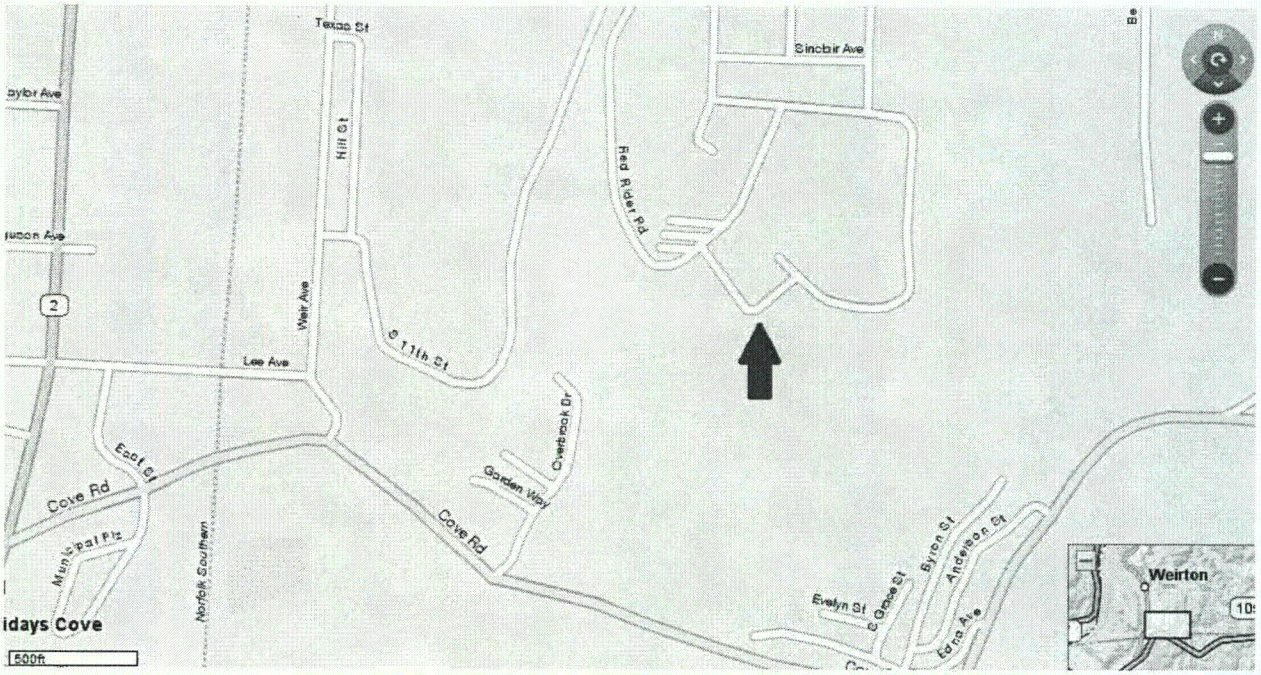
Chester FD Site Map



New Manchester Elementary Site Map



Weir High/Middle School Complex



APPENDIX E: IMPROVEMENT PLAN

An Improvement Plan is not applicable to this report since there are no outstanding Deficiencies, Areas Requiring Corrective Action or Planning Issues.

This page is intentionally blank.