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FEMA

SEP 23 2008

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US Nuclear Regulatory Commission
Washington, DC 20555-0001

Enclosed is the final report for the Beaver Valley Power Station (BVPS) Radiological Emergency Preparedness Exercise that was held on June 24, 2008.

If you have any questions, please contact Darrell Hammons at (215) 931-5546.

Sincerely,

N. C. Weiss for
Darrell Hammons
Regional Assistance Committee Chair

Enclosure

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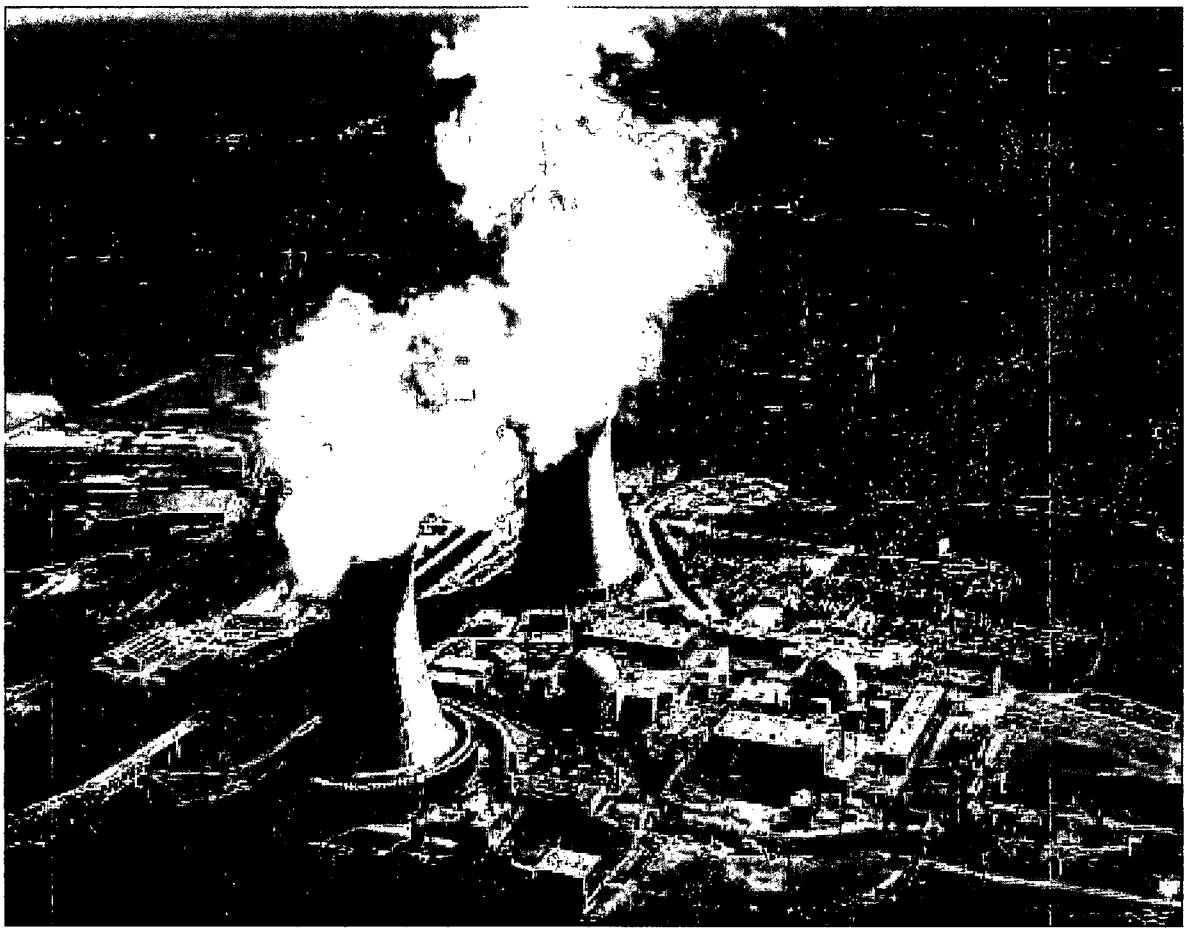
Beaver Valley Power Station

Exercise Report - 2008-06-24
Final Report - Radiological Emergency Preparedness (REP) Program
2008-09-19

FEMA



FEMA

Exercise Report

Beaver Valley Power Station

Exercise Date: 2008-06-24

Report Date: 2008-09-19

U.S. DEPARTMENT OF HOMELAND SECURITY
Federal Emergency Management Agency
REP Program

615 Chestnut Street
Philadelphia, PA 19106

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1. Executive Summary

On June 24, 2008, a full-scale plume exercise was conducted in the 10-mile plume exposure pathway, emergency planning zone (EPZ) around the Beaver Valley Power Station (BVPS) by the Department of Homeland Security/Federal Emergency Management Agency, Region III/National Preparedness Division/Radiological Emergency Preparedness Program (DHS/FEMARIII/NPD/REPP), Philadelphia, Pennsylvania. Out-of-sequence demonstrations were conducted on May 14, 2008. The purpose of the exercise and the out-of-sequence demonstrations was to assess the level of State and local preparedness in responding to a radiological emergency. The exercise and out-of-sequence demonstrations were held in accordance with DHS/FEMARIII/NPD/REPP policies and guidance concerning the exercise of State and local radiological emergency response plans (RERP) and procedures.

The most recent prior full-scale exercise at this site was conducted on June 26 - 30, 2006.

FEMA wishes to acknowledge the efforts of the many individuals in the Commonwealth of Pennsylvania, its one risk county (Beaver), its twenty seven risk jurisdictions (City of Aliquippa, Beaver Borough, Bridgewater Borough, Brighton Township, Center Township, Chippewa Township, Fallston Borough, Frankfort Springs Borough, Georgetown Borough, Glasgow Borough, Greene Township, Hanover Township, Hookstown Borough, Hopewell Township, Independence Township, Industry Borough, Midland Borough, Monaca Borough, Ohioville Borough, Patterson Township, Patterson Heights Borough, Potter Township, Raccoon Township, Shippingport Borough, South Beaver Township, South Heights Borough, and Vanport Township), and its four support counties (Allegheny, Butler, Lawrence, and Washington), as well as the State of West Virginia and its one risk county (Hancock), who 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 this exercise.

This report contains the final evaluation of the biennial exercise and the evaluation of

the following out-of-sequence activities:

Commonwealth of Pennsylvania

The State Emergency Operations Center (EOC), Commonwealth Emergency Information News Center (CENIC), Emergency Operating Facility (EOF), and Radiological Rapid Response Vehicle (R3V) were evaluated on 22 April 2008 during the Peach Bottom Atomic Power Station Exercise. Therefore, those activities were monitored and observed, but not evaluated.

The State Emergency Operations Center (EOC), Commonwealth Emergency Information News Center (CENIC), Emergency Operating Facility (EOF), and Radiological Rapid Response Vehicle (R3V) were evaluated on 22 April 2008 during the Peach Bottom Atomic Power Station Exercise. Therefore, those activities were monitored and observed, but not evaluated.

Emergency Worker, Monitoring and Decontamination: Conducted on May 14, 2008 between 1900 and 2130 hours in Beaver County.

Mass Care: Conducted on June May 14, 2008 between 1900 and 2100 hours in Lawrence and Washington Counties.

Reception Center and Monitoring/Decontamination: Conducted on May 14, 2008 between 1900 and 2100 hours in Allegheny, Butler, Lawrence, and Washington Counties.

Traffic/Access Control: Conducted on June 24, 2008 between 1300 and 1500 hours at the State Police Barracks.

Schools: Conducted May 14, 2008 between 0900 and 1100 in Beaver County.

Execpt where noted in this report, the Commonwealth and local orgaizations demonstrated knowledge of their emerency respone plans and procedures and adequately implemented them. There were no Deficiencies reported. However, six Areas Requiring Corrective Action (ARCAs) were identified as a result of theis exercise; five of the ARCAs were successfully re-demonstrated; one prior ARCA was successfully re-demonstrated. Two new planning issues were identified and have been corrected and one prior planning issue was resolved.

Emergency Worker, Monitoring and Decontamination: Conducted on June 24, 2008 between 1900 and 2100 hours in Hancock County.

Mass Care: Conducted on June 24, 2008 between 1900 and 2100 hours in Hancock County.

Reception Center and Monitoring/Decontamination: Conducted on June 24, 2008 between 1900 and 2100 hours in Hancock County.

Route Alerting: Conducted on June 24, 2008 between 1900 and 2100 hours in Hancock County.

Traffic/Access Control: Conducted on May 14, 2008 from 1900 hours until completion in Hancock County.

Except where noted in this report, the State and local organizations demonstrated knowledge of their emergency response plans and procedures and adequately implemented them. There were no Deficiencies reported. There were no Areas Requiring Corrective Action (ARCAs) identified as a result of this exercise. One new planning issues was identified and corrected; four planning issues from previous exercises were resolved.

2. Introduction

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. In October 2005, the REP Program was moved to the Department of Homeland Security/Office of Infrastructure Protection/Chemical & Nuclear Preparedness and Protection Division/Radiological Emergency Preparedness (DHS/OIP/CNPPD/REP). In March of 2007 legistlation was passed that transferred the REP Program back to FEMA. Modification of the 44 CFR series is underway to reflect the new organizational structure of the REP Program. Radiological Emergency Preparedness is now a branch of the Preparedness Division. At FEMA Region III, the Radiological Emerency Preparedness Program is part of the Technological Hazards Branch.

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

REP'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 Tribal, 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 Tribal, 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, and
- U.S. Food and Drug Administration.

Representatives of these agencies serve on the Radiological Assistance Committee (RAC), which is chaired by Regional Technological Hazards Branch Chief.

A REP exercise was conducted on June 24, 2008, to assess the capabilities of State and local emergency preparedness organizations in implementing their RERPs and procedures to protect the public health and safety during a radiological emergency involving Beaver Valley Power Station (BVPS). The purpose of this exercise report is to present the exercise results and findings on the performance of the off-site response organizations (OROs) during a simulated radiological emergency.

The findings presented in this report are based on the evaluations of the Federal evaluator team, with final determinations made by the RAC Chair and approved by the Regional Administrator, FEMA Region III, Philadelphia, PA.

The criteria utilized in the REP 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 Guidance Memoranda MS-1, "Medical Services," November 1986;

FEMA-REP-14, "Radiological Emergency Preparedness Exercise Manual," September 1991;

66 FR 47546, "FEMA Radiological Emergency Preparedness: Alert and Notification," September 12, 2001; and

67 FR 20580, "FEMA Radiological Emergency Preparedness: Exercise Evaluation Methodology," April 25, 2002.

Section III of this report, entitled "Exercise Overview," presents basic information and data relevant to the exercise. This section of the report contains a description of the plume pathway emergency planning zone (EPZ), a listing of all participating jurisdictions and functional entities that were evaluated, and a tabular presentation of the time of actual occurrence of key exercise events and activities.

Section IV of this report, entitled "Exercise Evaluation and Results," 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 and Areas Requiring Corrective Action (ARCAs) assessed during this exercise, recommended corrective actions, and the Tribal, State, and local governments' schedule of corrective actions for each identified exercise issue and (2) descriptions of ARCAs assessed during previous exercises and resolved at this exercise, including the corrective action demonstrated, as well as ARCAS assessed during previous exercises and scheduled for demonstration at this exercise which remain unresolved.

The final section of the report is comprised of the appendices, which present the following supplementary information: acronyms and abbreviations, exercise evaluators and team leaders, exercise evaluation area criteria and extent of play agreement, and the exercise scenario. It also presents information on planning issues (both new planning issues identified during this exercise and resolved planning issues identified during previous exercises), and additional prior issues not scheduled for demonstration at this exercise.

3. Exercise Overview

Contained in this section are data and basic information relevant to the June 24, 2008 exercise to test the off-site emergency response capabilities in the area surrounding Beaver Valley Power Station (BVPS). This section of the exercise report includes a description of the plume pathway emergency planning zone (EPZ), a listing of all participating jurisdictions and functional entities that were evaluated, and a tabular presentation of the time of actual occurrence of key exercise events and activities.

3.1. EPZ Description

BVPS is located in western Pennsylvania on the southern bank of the Ohio River in Beaver County, Pennsylvania. The site is located near Shippingport Borough, about 1 mile from Midland, Pennsylvania, on 501 acres of fairly level terrace owned by the FirstEnergy Nuclear Operating Company. The latitude for the site is 40º37'18" north; the longitude is 80º26'02" 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 ºF. 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 334,563 and lies 22 miles to the southeast. The maximum population distribution, including residents and transients, is 94,023 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.

3.2. Exercise Participants

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

State Jurisdictions

- Commonwealth of Pennsylvania - Emergency Operations Center
- Bureau of Radiation Protection
- Pennsylvania State Police
- State of West Virginia, Department of Homeland Security, Office of Emergency Services
- State of West Virginia, Department of Health and Human Resources, Bureau of Public Health
- State of West Virginia, Department of Environmental Protection
- State of West Virginia, Department of Natural Resources
- State of West Virginia, Department of Agriculture
- State of West Virginia, Field Air Sampling Team

Risk Jurisdictions

- BEAVER COUNTY EMERGENCY OPEATIONS CENTER
- Beaver County 911 Center
- Beaver County Agricultural Services
- Beaver County Board of Commissions
- Beaver County Department of Health
- Beaver County Emergency Management Agency

Beaver County Hazardous Materials Response
Beaver County Industrial Liaison
Beaver County Office of the Aging
Beaver County Public Works
Beaver County Radiological Office
Beaver County Sherrif's Office
Beaver County Transit Authority
ALIQUIPA EMERGENCY OPERATIONS CENTER
Aliquippa City Fire Department
Aliquippa City Police Department
BEAVER BOROUGH EMERGENCY OPERATIONS CENTER
Beaver Borough Mayor's Office
Beaver Borough City Council
Beaver Borough Fire Department
Beaver Borough Police
BRIDGEWATER/FALLSTON BOROUGH EMERGENCY OPERATIONS CENTER
Bridgewater Fire Department
Bridgewater Police Department
Fallston Fire Department
BRIGHTON TOWNSHIP EMERGENCY OPERATIONS CENTER
Brighton Township Board of Supervisors
Brighton Township Emergency Management Agency
Brighton Township Police Department
Brighton Township Public Works
Brighton Township Fire Department
CENTER TOWNSHIP EMERGENCY OPERATIONS CENTER
Center Township Fire Department
Center Township Police Department
CHIPPEWA TOWNSHIP EMERGENCY OPERATIONS CENTER
Chippewa Township Public Works
Chippewa Township Police Department
Chippewa Township Volunteer Fire Department
Chippewa Township Emergency Management
Chippewa Township Board of Supervisors
FRANKFORT SPEINGS BOROUGH/HANOVER TOWNSHIP/GEORGETOWN BOROUGH/GREEN TOWNSHIP/HOOKSTOWN BOROUGH EMERGENCY OPERATIONS CENTER

Green Township Board of Supervisors
Hookstown Volunteer Fire Department
Hookstown Borough Council
Hookstown Area Emergency Services
Hanover Township Council
Hanover Township Emergency Management Agency
HOPEWELL TOWNSHIP EMERGENCY OPERATIONS CENTER
Hopewell Township Police Department
Hopewell Township Fire Department
Hopewell Township Shcool District
Hopewell Township Public Works
Hopewell Township Commissioners Office
Hopewell Township Emergency Management Agency
INDEPENDENCE TOWNSHIP EMERGENCY OPERATIONS CENTER
Independence Township Volunteer Fire Department
Independence Township Police Department
Independence Township Emergency Medical Services
Independence Township Road Department
Independence Township City Council - Mayor's Office
Independence Township Emergency Management
Independence Township Supervisors Office
INDUSTRY BOROUGH EMERGENCY OPERATIONS CENTER
Industry Borough Emergency Management
Industry Borough Police Department
Industry Borough City Council - Mayor'S Office
MIDLAND BOROUGH EMERGENCY OPERATIONS CENTER
Midland Borough Council
Midland Borough Medical Services
Midland Borough Fire Department
Midland Borough Police Department
Monaca Borough Emergency Operations Center
Monaca Borough Volunteer Fire Department
Monaca Borough Police Department
Monaca Borough Mayor's Office
Monaca Borough Department of Public Works
PATTERSON HEIGHTS/PATTERSON TOWNSHIP EMERGENCY OPERATIONS CENTER

Patterson Heights Borough Counsel
Patterson Heights Borough fire Department
Patterson Heights Borough Street Department
Patterson Township Board of Commissions
Patterson Township Emergency Management
Patterson Township Police Department
Patterson Township Fire Department
POTTER TOWNSHIP EMERGENCY OPERATIONS CENTER
Potter Township Emergency Medical Services
Potter Township Volunteer Fire Department
RACOON TOWNSHIP EMERGENCY OPERATIONS CENTER
Racoon Township Board of supervisors
Racoon Township Fire Department
Racoon Township Police Department
SHIPPINGPORT BOROUGH EMERGENCY OPERATIONS CENTER
Shippingport Borough President of Counsel
Shippingport Borough Mayor
SOUTH BEAVER TOWNSHIP/GLASGOW BOROUGH/OHIOVILLE BOROUGH EMERGENCY OPERATIONS CENTER
Ohioville Fire Department
Ohioville Medical Officer
Ohioville Medical Services
Ohioville Police
Ohioville Emergency Management
South Beaver Township Secretary
South Beaver Police
South Beaver Board of Supervisors
South Beaver Emergency Management
SOUTH HEIGHTS BOROUGH EMERGENCY OPERATIONS CENTER
South Heights Borough Police Department
Hopewell Volunteer Fire Department
VANPORT TOWNSHIP EMERGENCY OPERATIONS CENTER
Vanport Township Board of Commissioners
Vanport Township Emergency Manager
Vanport Township Police
Vanport Township Public Works
Vanport Township Fire Department

Beaver Police Department
PA SCHOOL DISTRICTS AND SCHOOLS
Aliquippa School District
Aliquippa Elementary School
Beaver Area School District
Beaver Area Middle School
Blackhawk School District
Patterson Elementary School
Center Area School District
Center Area Junior High School
Hopewell Area School District
Margret Ross Elementary School
Midland borough School District
Neel Elementary School
Monaca School District
Monaca Elementary School
New Brighton School District
Ambridge School District
South Side Area School District
South Side Middle School
Western Beaver School District
Western Beaver Jr/Sr High School
HANCOCK COUNTY EMERGENCY OPERATIONS CENTER
Hancock County Agriculture Extension
Hancock County Department of Health
Hancock County 911
Hancock County Emergency Management Agency
Hancock County Emergency Medical Services
Hancock County Fire Services
Hancock County Sheriffs Department
Hancock County Health Department
New Cumberland Police Department
New Cumberland Volunteer Fire Department
Oak Glen High School
Hancock County School District
Support Jurisdictions
ALLEGHENY COUNTY EMERGENCY OPERATIONS CENTER

Allegheny County Emergency Services
Allegheny County Managers Office
Allegheny County Office of Behavior Health
Allegheny County Parks Department
Allegheny County Police
Allegheny County Port Authority
Allegheny County Public Defender's Office
Allegheny County Sheriff's Office
Allegheny County Manager
Allegheny County Law Department
Allegheny County Airport Authority
Allegheny County Budget and Finance Department
Allegheny County Council, Chair, Public Safety
Allegheny County Department of Court Records
Allegheny County Department of Human Services
Allegheny County 911 Center
Allegheny County GIS
Pittsburgh Bureau of Fire
Pittsburgh City Manager
Pittsburgh Emergency Medical Service
Pittsburgh Public Safety
Moon Township Fire Department
Municipality of Monroeville
University of Pittsburgh Medical Center
BUTLER COUNTY EMERGENCY OPERATIONS CENTER
Butler County Emergency Management Agency
Butler County Public Information Officer
Butler County Hazmat
Butler Memorial Hospital
Butler County Sheriffs Office
Butler County Fire Department
Butler County 911 Center
Cranberry Township Police Department
Pennsylvania Department of Transportation
LAWRENCE COUNTY EMERGENCY OPERATIONS CENTER
Lawrence County Emergency Management Agency
Lawrence County Board of Commissioners

Lawrence County Department of Public Safety
Lawrence County Courthouse Security
New Castle Fire Department
Pennsylvania Army National Guard
Pennsylvania State Extension Service
WASHINGTON COUNTY EMERGENCY OPERATIONS CENTER
Washington County Emergency Management
Washington County Information Technology Department
Washington County HAZMAT Team
Washington County Finance Department
Washington County Department of Public Safety
Washington County Department of Human Services
Washington County Purchasing Department

Private Jurisdictions

Beaver County Radio Amateur Civil Emergency Services (RACES)
Radio Emergency Associated Communications Team (Beaver Co)
Amateur Radio Emergency Service (ARES)
American Red Cross, South West Pennsylvania Chapter
Salvation Army Disaster Services
Troop 141, Boy Scouts of America
Marshall University
Beaver Valley Power Station
Weirton/Hancock County Citizen Corps

3.3. Exercise Timeline

Table 1, on the following page, presents the times at which key events and activities occurred during the BVPS exercise on June 24, 2008. Also included are times notifications were made to the participating jurisdictions/functional entities.

Table 1 - Exercise Timeline

DATE: 2008-06-24, SITE: Beaver Valley Power Station, PA

Emergency Classification Level or Event	Time Utility Declared	BV JPIC	BC EOC	AEOC	BB EOC	BFEOC	BTEOC
Unusual Event	N/A	N/A	N/A	Nn/A	N/A	N/A	N/A
Alert	1625	1712	1629	1640	1639	1640	1643
Site Area Emergency	1800	1807	1805	1807	1806	1808	1806
General Emergency	1920	1933	1925	1925	1926	1926	1926
Simulated Rad. Release Started		1807	1809	1810	1810	N/R	2010
Simulated Rad. Release Terminated		N/A	N/A	N/A	N/A	N/A	N/A
Facility Declared Operational		1728	1705	1651	1653	1656	1705
Declaration of State of Emergency		1815	1815	1905	1848	1848	1835
Exercise Terminated		2155	2104	2105	2026	2012	2103
Early Precautionary Actions:		1846	1845	1853	N/R	N/R	1927
1st Protective Action Decision:		1846	1830	1946	1831	1933	1843
1st Siren Activation			1840	1833			
1st EAS or EBS Message				1833			
2nd Protective Action Decision:		1954	1945	1946	1946	1945	1950
2nd Siren Activation			1950	1946			
2nd EAS or EBS Message				1946			
3rd Protective Action Decision:							
3rd Siren Activation							
3rd EAS or EBS Message							
KI Administration Decision:		1954	1935	1950	1948	1950	1951

Table 1 - Exercise Timeline

DATE: 2008-06-24, SITE: Beaver Valley Power Station, PA

Emergency Classification Level or Event	Time Utility Declared	CTEOC	CT EOC	FSHTGBGTHB EOC	ITEOC	IEOC	HWTEOC
Unusual Event	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alert	1625	1637	1642	1640	1642	1646	1641
Site Area Emergency	1800	1806	1806	1812	1813	1806	1808
General Emergency	1920	1926	1929	1926	1927	1928	1926
Simulated Rad. Release Started		1810	1810	2010	1956	1955	1955
Simulated Rad. Release Terminated		N/A	N/A	N/A	N/A	N/A	N/A
Facility Declared Operational		1718	1658	1715	1710	1736	1726
Declaration of State of Emergency		N/R	1835	1835	1905	N/R	1905
Exercise Terminated		2048	2046	2052	2030	2048	2036
Early Precautionary Actions:		N/R	1906	1900	N/R	N/R	1909
1st Protective Action Decision:		1840	1837	1835	1832	1836	1830
1st Siren Activation							
1st EAS or EBS Message				1947			
2nd Protective Action Decision:		1950	1947		1945	1946	1945
2nd Siren Activation							
2nd EAS or EBS Message							
3rd Protective Action Decision:							
3rd Siren Activation							
3rd EAS or EBS Message							
KI Administration Decision:		1947	1953	1954	1950	1954	1950

Table 1 - Exercise Timeline

DATE: 2008-06-24, SITE: Beaver Valley Power Station, PA

Emergency Classification Level or Event	Time Utility Declared	MEOC	MoEOC	PHPTEOC	PTEOC	RTEOC	ShEOC
Unusual Event	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alert	1625	1645	1640	1642	1637	1640	1645
Site Area Emergency	1800	1810	1807	1809	1806	1806	1807
General Emergency	1920	1930	1930	1930	1927	1928	1929
Simulated Rad. Release Started		1955	N/R	N/R	1806	N/R	N/R
Simulated Rad. Release Terminated		N/A	N/A	N/A	N/A	N/A	N/A
Facility Declared Operational		1700	1704	1713	1725	1724	1720
Declaration of State of Emergency		1905	1859	N/R	N/R	1730	1905
Exercise Terminated		2015	2050	2054	2020	2022	2028
Early Precautionary Actions:		N/R	N/R		N/R	N/R	N/R
1st Protective Action Decision:		1830	1834		1831	1832	1832
1st Siren Activation							
1st EAS or EBS Message							
2nd Protective Action Decision:		1950	1947		1945	1946	1945
2nd Siren Activation							
2nd EAS or EBS Message							
3rd Protective Action Decision:							
3rd Siren Activation							
3rd EAS or EBS Message							
KI Administration Decision:		1952	1952	1952	1948	1949	1950

Table 1 - Exercise Timeline
DATE: 2008-06-24, SITE: Beaver Valley Power Station, PA

Emergency Classification Level or Event	Time Utility Declared	SBOGEOC	SHEOC	VEOC	ACEOC	BtCEOC	LCEOC
Unusual Event	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alert	1625	1647	1639	1636	1708	1701	1658
Site Area Emergency	1800	1807	1810	1800	1809	1809	1808
General Emergency	1920	1929	1922	1929	1940	1928	1920
Simulated Rad. Release Started		N/R	1810	N/R	1923	1928	N/R
Simulated Rad. Release Terminated		N/A	N/A	N/A	N/A	N/A	N/A
Facility Declared Operational		1759	1750	1650	1730	1730	1721
Declaration of State of Emergency		1816	N/R	N/R	1910	1903	1850
Exercise Terminated		2018	2048	2015	2036	2036	2050
Early Precautionary Actions:		1905	N/R	N/R	1902	1927	N/R
1st Protective Action Decision:		1840	1832	1840	1835	1835	1833
1st Siren Activation							
1st EAS or EBS Message							
2nd Protective Action Decision:		1947	1945	1947	1948	1950	1947
2nd Siren Activation							
2nd EAS or EBS Message							
3rd Protective Action Decision:							
3rd Siren Activation							
3rd EAS or EBS Message							
KI Administration Decision:		1950	1949	1951	1950	1953	1950

Table 1 - Exercise Timeline

DATE: 2008-06-24, SITE: Beaver Valley Power Station, PA

Emergency Classification Level or Event	Time Utility Declared	WC EOC	WVEOC	WVPIC	WVAAC	HC EOC
Unusual Event	N/A	N/A	N/A	N/A	N/A	N/A
Alert	1625	1648	1627	1627	1627	1630
Site Area Emergency	1800	1809	1809	1809	1809	1805
General Emergency	1920	1929	1922	1922	1922	1925
Simulated Rad. Release Started		1939	1938	1938	1938	1805
Simulated Rad. Release Terminated		N/A	N/A	N/A	N/A	N/A
Facility Declared Operational		1710	1650	1650	1650	1659
Declaration of State of Emergency		1846	1817	1817	1817	1745
Exercise Terminated		2100	2155	2155	2155	2157
Early Precautionary Actions:		1839	1833	1833	1833	1839
1st Protective Action Decision:		1821	1829	1829	1829	1830
1st Siren Activation			1829		1829	1840
1st EAS or EBS Message			1829		1829	1843
2nd Protective Action Decision:		1937	1938	1938	1938	1944
2nd Siren Activation			1938		1938	1950
2nd EAS or EBS Message			1938		1938	1953
3rd Protective Action Decision:			2100	2100	2100	N/A
3rd Siren Activation						
3rd EAS or EBS Message						
KI Administration Decision:		1950	1938		1938	1925

4. Exercise Evaluation and Results

Contained in this section are the results and findings of the evaluation of all jurisdictions and functional entities that participated in the June 24, 2008 biennial Radiological Emergency Preparedness (REP) exercise. The exercise was held to test the offsite emergency response capabilities of 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 Exercise Evaluation Methodology. Detailed information on the exercise evaluation area criteria and the extent-of-play agreement used in this exercise are found in Appendix 3 of this report.

4.1. Summary Results of Exercise Evaluation

The matrix presented in Table 2, 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 ARCAs assessed and no unresolved ARCAs from prior exercises)

A ARCA(s) assessed

A1 ARCA(s) assessed, but successfully re-demonstrated

R Resolved ARCA(s) from prior exercises

Table 2 - Summary of Exercise Evaluation (8 pages)

DATE: 2008-06-24 SITE: Beaver Valley Power Station, PA A: ARCA, D: Deficiency, M: Met		BV JPIC	SFMT A SWR	SFMT B SWR	CPA State TACP	BC EOC	AEOC	BB EOC	BC BB BuRA	BFEOC	BTEOC	BC BT BuRA
Emergency Operations Management												
Mobilization	1a1		M	M		M	M	M	M	M	M	M
Facilities	1b1											
Direction and Control	1c1					M	M	M		M	M	
Communications Equipment	1d1		M	M	M	M	M	M	M	M	M	M
Equip & Supplies to support operations	1e1		M	M	M	M	M	M	M	M	M	M
Protective Action Decision Making												
Emergency Worker Exposure Control	2a1					M						
Radiological Assessment and PARs	2b1											
Decisions for the Plume Phase -PADs	2b2											
PADs for protection of special populations	2c1					M						
Rad Assessment and Decision making for the Ingestion Exposure Pathway	2d1											
Rad Assessment and Decision making concerning Relocation, Reentry, and Return	2e1											
Protective Action Implementation												
Implementation of emergency worker exposure control	3a1		M	M	M	M	M	M	M	M	M	M
Implementation of KI decision	3b1		M	M	M	M	M	M	M	M	M	M
Implementation of protective actions for special populations - EOCs	3c1					M	A	M		M	M	
Implementation of protective actions for Schools	3c2					M						
Implementation of traffic and access control	3d1				M	M		M		M		
Impediments to evacuation are identified and resolved	3d2				M	M	M	M		M	M	
Implementation of ingestion pathway decisions - availability/use of info	3e1											
Materials for Ingestion Pathway PADs are available	3e2											
Implementation of relocation, re-entry, and return decisions.	3f1											
Field Measurement and Analysis												
Adequate Equipment for Plume Phase Field Measurements	4a1		M	M								
Field Teams obtain sufficient information	4a2		M	M								
Field Teams Manage Sample Collection Appropriately	4a3		M	M								
Post plume phase field measurements and sampling	4b1											
Laboratory operations	4c1											
Emergency Notification and Public Info												
Activation of the prompt alert and notification system	5a1					M	M	M		M	M	
Activation of the prompt alert and notification system - Fast Breaker	5a2											
Activation of the prompt alert and notification system - Exception areas	5a3								M			M
Emergency information and instructions for the public and the media	5b1	M				M						
Support Operations/Facilities												
Mon / decon of evacuees and emergency workers, and registration of evacuees	6a1											
Mon / decon of emergency worker equipment	6b1											
Temporary care of evacuees	6c1											
Transportation and treatment of contaminated injured individuals	6d1											

Table 2 - Summary of Exercise Evaluation (Continued. page 2/8)

DATE: 2008-06-24 SITE: Beaver Valley Power Station, PA A: ARCA, D: Deficiency, M: Met		CTEOC	CT EOC	BCCT BuRA	FSHTGBGTHB EOC	ITEOC	IEOC	HWTEOC	BC HT BuRA	MEOC	MoEOC
Emergency Operations Management											
Mobilization	1a1	M	M	M	M	M	M	M	M	M	M
Facilities	1b1						M				
Direction and Control	1c1	M	M		M	M	M	M		M	M
Communications Equipment	1d1	M	M	M	M	M	M	M	M	M	M
Equip & Supplies to support operations	1e1	M	M	M	M	M	M	M	M	M	M
Protective Action Decision Making											
Emergency Worker Exposure Control	2a1										
Radiological Assessment and PARs	2b1										
Decisions for the Plume Phase PADs	2b2										
PADs for protection of special populations	2c1										
Rad Assessment and Decision making for the Ingestion Exposure Pathway	2d1										
Rad Assessment and Decision making concerning Relocation, Reentry, and Return	2e1										
Protective Action Implementation											
Implementation of emergency worker exposure control	3a1	M	M	M	M	M	M	M	M	M	M
Implementation of KI decision	3b1	M	M	M	M	M	M	M	M	M	M
Implementation of protective actions for special populations - EOCs	3c1	M	M		M	M	M	M		M	M
Implementation of protective actions for Schools	3c2										
Implementation of traffic and access control	3d1	M									M
Impediments to evacuation are identified and resolved	3d2	M	M		M	M	M	M		M	M
Implementation of ingestion pathway decisions - availability/use of info	3e1										
Materials for Ingestion Pathway PADs are available	3e2										
Implementation of relocation, re-entry, and return decisions.	3f1										
Field Measurement and Analysis											
Adequate Equipment for Plume Phase Field Measurements	4a1										
Field Teams obtain sufficient information	4a2										
Field Teams Manage Sample Collection Appropriately	4a3										
Post plume phase field measurements and sampling	4b1										
Laboratory operations	4c1										
Emergency Notification and Public Info											
Activation of the prompt alert and notification system	5a1	M	M		M	M	M	M		M	M
Activation of the prompt alert and notification system - Fast Breaker	5a2										
Activation of the prompt alert and notification system - Exception areas	5a3			M					M		
Emergency information and instructions for the public and the media	5b1										
Support Operations/Facilities											
Mon / decon of evacuees and emergency workers, and registration of evacuees	6a1										
Mon / decon of emergency worker equipment	6b1										
Temporary care of evacuees	6c1										
Transportation and treatment of contaminated injured individuals	6d1										

Table 2 - Summary of Exercise Evaluation (Continued. page 3/8)

DATE: 2008-06-24 SITE: Beaver Valley Power Station, PA A: ARCA, D: Deficiency, M: Met		BC Mo BuRA	PHPTEOC	BC PT BuRA	PTEOC	RTEOC	ShEOC	SBOGEOC	SHEOC	VEOC	BC EWMDS BFFD
Emergency Operations Management											
Mobilization	1a1	M	M	M	M	M	M	M	M	M	
Facilities	1b1										
Direction and Control	1c1		M		M	M	M	M	M	M	
Communications Equipment	1d1	M	M	M	M	M	M	M	M	M	
Equip & Supplies to support operations	1e1	M	M	M	M	M	M	M	M	M	M
Protective Action Decision Making											
Emergency Worker Exposure Control	2a1										
Radiological Assessment and PARs	2b1										
Decisions for the Plume Phase -PADs	2b2										
PADs for protection of special populations	2c1										
Rad Assessment and Decision making for the Ingestion Exposure Pathway	2d1										
Rad Assessment and Decision making concerning Relocation, Reentry, and Return	2e1										
Protective Action Implementation											
Implementation of emergency worker exposure control	3a1	M	M	M	M	M	M	M	M	M	M
Implementation of KI decision	3b1	M	M	M	M	M	M	M	M	M	
Implementation of protective actions for special populations - EOCs	3c1		M		M	M	M	M	M	M	
Implementation of protective actions for Schools	3c2										
Implementation of traffic and access control	3d1		M			M	M				
Impediments to evacuation are identified and resolved	3d2		M		M	M	M	M	M	M	
Implementation of ingestion pathway decisions - availability/use of info	3e1										
Materials for Ingestion Pathway PADs are available	3e2										
Implementation of relocation, re-entry, and return decisions.	3f1										
Field Measurement and Analysis											
Adequate Equipment for Plume Phase Field Measurements	4a1										
Field Teams obtain sufficient information	4a2										
Field Teams Manage Sample Collection Appropriately	4a3										
Post plume phase field measurements and sampling	4b1										
Laboratory operations	4c1										
Emergency Notification and Public Info											
Activation of the prompt alert and notification system	5a1		M		M	M	M	M	M	M	
Activation of the prompt alert and notification system - Fast Breaker	5a2										
Activation of the prompt alert and notification system - Exception areas	5a3	M		M							
Emergency information and instructions for the public and the media	5b1										
Support Operations/Facilities											
Mon / decon of evacuees and emergency workers, and registration of evacuees	6a1										M
Mon / decon of emergency worker equipment	6b1										M
Temporary care of evacuees	6c1										
Transportation and treatment of contaminated injured individuals	6d1										

Table 2 - Summary of Exercise Evaluation (Continued. page 4/8)

DATE: 2008-06-24 SITE: Beaver Valley Power Station, PA A: ARCA, D: Deficiency, M: Met		BC EWMDS SBTFD	ACEOC	ACRC SPFG	ACMDC SPFG	ACMCC SPHS	BtCEOC	BtCRC SRU	BtCMCC SRU	BtC MDC	LCEOC
Emergency Operations Management											
Mobilization	1a1		M				M				M
Facilities	1b1										
Direction and Control	1c1		M				M				M
Communications Equipment	1d1		M				M				M
Equip & Supplies to support operations	1e1	M	M				M				M
Protective Action Decision Making											
Emergency Worker Exposure Control	2a1										
Radiological Assessment and PARs	2b1										
Decisions for the Plume Phase -PADs	2b2										
PADs for protection of special populations	2c1										
Rad Assessment and Decision making for the Ingestion Exposure Pathway	2d1										
Rad Assessment and Decision making concerning Relocation, Reentry, and Return	2e1										
Protective Action Implementation											
Implementation of emergency worker exposure control	3a1	M			M					M	
Implementation of KI decision	3b1										
Implementation of protective actions for special populations - EOCs	3c1										
Implementation of protective actions for Schools	3c2										
Implementation of traffic and access control	3d1										
Impediments to evacuation are identified and resolved	3d2										
Implementation of ingestion pathway decisions - availability/use of info	3e1										
Materials for Ingestion Pathway PADs are available	3e2										
Implementation of relocation, re-entry, and return decisions.	3f1										
Field Measurement and Analysis											
Adequate Equipment for Plume Phase Field Measurements	4a1										
Field Teams obtain sufficient information	4a2										
Field Teams Manage Sample Collection Appropriately	4a3										
Post plume phase field measurements and sampling	4b1										
Laboratory operations	4c1										
Emergency Notification and Public Info											
Activation of the prompt alert and notification system	5a1										
Activation of the prompt alert and notification system - Fast Breaker	5a2										
Activation of the prompt alert and notification system - Exception areas	5a3										
Emergency information and instructions for the public and the media	5b1										
Support Operations/Facilities											
Mon / decon of evacuees and emergency workers, and registration of evacuees	6a1	M		M	M			M		M	
Mon / decon of emergency worker equipment	6b1	M									
Temporary care of evacuees	6c1					M			M		
Transportation and treatment of contaminated injured individuals	6d1										

Table 2 - Summary of Exercise Evaluation (Continued. page 5/8)

DATE: 2008-06-24 SITE: Beaver Valley Power Station, PA A: ARCA, D: Deficiency, M: Met		LCRC MAHS	LCMDC MHS	LCMCC UHS	WC EOC	WCRC CFG	WC MDC MGHS	WCMCC MGJSHS	ASD	AES	BASD
Emergency Operations Management											
Mobilization	1a1				M						
Facilities	1b1										
Direction and Control	1c1				M						
Communications Equipment	1d1				M						
Equip & Supplies to support operations	1e1				M						
Protective Action Decision Making											
Emergency Worker Exposure Control	2a1										
Radiological Assessment and PARs	2b1										
Decisions for the Plume Phase -PADs	2b2										
PADs for protection of special populations	2c1										
Rad Assessment and Decision making for the Ingestion Exposure Pathway	2d1										
Rad Assessment and Decision making concerning Relocation, Reentry, and Return	2e1										
Protective Action Implementation											
Implementation of emergency worker exposure control	3a1		M				M				
Implementation of KI decision	3b1										
Implementation of protective actions for special populations - EOCs	3c1										
Implementation of protective actions for Schools	3c2								M	M	M
Implementation of traffic and access control	3d1										
Impediments to evacuation are identified and resolved	3d2										
Implementation of ingestion pathway decisions - availability/use of info	3e1										
Materials for Ingestion Pathway PADs are available	3e2										
Implementation of relocation, re-entry, and return decisions.	3f1										
Field Measurement and Analysis											
Adequate Equipment for Plume Phase Field Measurements	4a1										
Field Teams obtain sufficient information	4a2										
Field Teams Manage Sample Collection Appropriately	4a3										
Post plume phase field measurements and sampling	4b1										
Laboratory operations	4c1										
Emergency Notification and Public Info											
Activation of the prompt alert and notification system	5a1										
Activation of the prompt alert and notification system - Fast Breaker	5a2										
Activation of the prompt alert and notification system - Exception areas	5a3										
Emergency information and instructions for the public and the media	5b1										
Support Operations/Facilities											
Mon / decon of evacuees and emergency workers, and registration of evacuees	6a1	M	M			M	M				
Mon / decon of emergency worker equipment	6b1										
Temporary care of evacuees	6c1			M				M			
Transportation and treatment of contaminated injured individuals	6d1										

Table 2 - Summary of Exercise Evaluation (Continued. page 6/8)

DATE: 2008-06-24 SITE: Beaver Valley Power Station, PA A: ARCA, D: Deficiency, M: Met		BAJSHS	BhSD	PPS	CASD	CAJHS CASD	HASD	MRES	MiBSD	NES	MoSD
Emergency Operations Management											
Mobilization	1a1										
Facilities	1b1										
Direction and Control	1c1										
Communications Equipment	1d1										
Equip & Supplies to support operations	1e1										
Protective Action Decision Making											
Emergency Worker Exposure Control	2a1										
Radiological Assessment and PARs	2b1										
Decisions for the Plume Phase -PADs	2b2										
PADs for protection of special populations	2c1										
Rad Assessment and Decision making for the Ingestion Exposure Pathway	2d1										
Rad Assessment and Decision making concerning Relocation, Reentry, and Return	2e1										
Protective Action Implementation											
Implementation of emergency worker exposure control	3a1										
Implementation of KI decision	3b1										
Implementation of protective actions for special populations - EOCs	3c1										
Implementation of protective actions for Schools	3c2	M	M	M	M	M	M	M	M	M	M
Implementation of traffic and access control	3d1										
Impediments to evacuation are identified and resolved	3d2										
Implementation of ingestion pathway decisions - availability/use of info	3e1										
Materials for Ingestion Pathway PADs are available	3e2										
Implementation of relocation, re-entry, and return decisions	3f1										
Field Measurement and Analysis											
Adequate Equipment for Plume Phase Field Measurements	4a1										
Field Teams obtain sufficient information	4a2										
Field Teams Manage Sample Collection Appropriately	4a3										
Post plume phase field measurements and sampling	4b1										
Laboratory operations	4c1										
Emergency Notification and Public Info											
Activation of the prompt alert and notification system	5a1										
Activation of the prompt alert and notification system - Fast Breaker	5a2										
Activation of the prompt alert and notification system - Exception areas	5a3										
Emergency information and instructions for the public and the media	5b1										
Support Operations/Facilities											
Mon / decon of evacuees and emergency workers, and registration of evacuees	6a1										
Mon / decon of emergency worker equipment	6b1										
Temporary care of evacuees	6c1										
Transportation and treatment of contaminated injured individuals	6d1										

Table 2 - Summary of Exercise Evaluation (Continued. page 7/8)

DATE: 2008-06-24 SITE: Beaver Valley Power Station, PA A: ARCA, D: Deficiency, M: Met		FWES, MoSD	NBSD	AmASD	SSSD	SSMS	WBS	WBJSHS	WVEOC	WVPIC	WVAAC
Emergency Operations Management											
Mobilization	1a1								M	M	
Facilities	1b1										
Direction and Control	1c1								M		M
Communications Equipment	1d1								M		M
Equip & Supplies to support operations	1e1								M		M
Protective Action Decision Making											
Emergency Worker Exposure Control	2a1								M		M
Radiological Assessment and PARs	2b1								M		M
Decisions for the Plume Phase -PADs	2b2								M		
PADs for protection of special populations	2c1								M		
Rad Assessment and Decision making for the Ingestion Exposure Pathway	2d1										
Rad Assessment and Decision making concerning Relocation, Reentry, and Return	2e1										
Protective Action Implementation											
Implementation of emergency worker exposure control	3a1										
Implementation of KI decision	3b1								M		
Implementation of protective actions for special populations - EOCs	3c1										
Implementation of protective actions for Schools	3c2	M	M	M	M	M	M	M			
Implementation of traffic and access control	3d1										
Impediments to evacuation are identified and resolved	3d2										
Implementation of ingestion pathway decisions - availability/use of info	3e1										
Materials for Ingestion Pathway PADs are available	3e2										
Implementation of relocation, re-entry, and return decisions.	3f1										
Field Measurement and Analysis											
Adequate Equipment for Plume Phase Field Measurements	4a1										
Field Teams obtain sufficient information	4a2										M
Field Teams Manage Sample Collection Appropriately	4a3										
Post plume phase field measurements and sampling	4b1										
Laboratory operations	4c1										
Emergency Notification and Public Info											
Activation of the prompt alert and notification system	5a1										
Activation of the prompt alert and notification system - Fast Breaker	5a2										
Activation of the prompt alert and notification system - Exception areas	5a3										
Emergency information and instructions for the public and the media	5b1								M	M	
Support Operations/Facilities											
Mon / decon of evacuees and emergency workers, and registration of evacuees	6a1										
Mon / decon of emergency worker equipment	6b1										
Temporary care of evacuees	6c1										
Transportation and treatment of contaminated injured individuals	6d1										

Table 2 - Summary of Exercise Evaluation (Continued. page 8/8)

DATE: 2008-06-24 SITE: Beaver Valley Power Station, PA A: ARCA, D: Deficiency, M: Met		WVFAMT	HC EOC	HC TCP/ACP CCH	HC BuRA, OFD	HCRC WHS	HC MDC WHS	HC MCC WHS	HCEWMDC NCFD	HCSD	OGHS HCSD
Emergency Operations Management											
Mobilization	1a1	M	M								
Facilities	1b1										
Direction and Control	1c1		M								
Communications Equipment	1d1	M	M	M	M						
Equip & Supplies to support operations	1e1	M	M	M	M			M			
Protective Action Decision Making											
Emergency Worker Exposure Control	2a1	M	M								
Radiological Assessment and PARs	2b1										
Decisions for the Plume Phase -PADs	2b2										
PADs for protection of special populations	2c1		M								
Rad Assessment and Decision making for the Ingestion Exposure Pathway	2d1										
Rad Assessment and Decision making concerning Relocation, Reentry, and Return	2e1										
Protective Action Implementation											
Implementation of emergency worker exposure control	3a1	M	M	M	M	M	M		M		
Implementation of KI decision	3b1	M	M	M	M						
Implementation of protective actions for special populations - EOCs	3c1		M								
Implementation of protective actions for Schools	3c2		M							M	M
Implementation of traffic and access control	3d1		M	M							
Impediments to evacuation are identified and resolved	3d2		M	M							
Implementation of ingestion pathway decisions - availability/use of info	3e1										
Materials for Ingestion Pathway PADs are available	3e2										
Implementation of relocation, re-entry, and return decisions.	3f1										
Field Measurement and Analysis											
Adequate Equipment for Plume Phase Field Measurements	4a1	M									
Field Teams obtain sufficient information	4a2	M									
Field Teams Manage Sample Collection Appropriately	4a3	M									
Post plume phase field measurements and sampling	4b1										
Laboratory operations	4c1										
Emergency Notification and Public Info											
Activation of the prompt alert and notification system	5a1		M								
Activation of the prompt alert and notification system - Fast Breaker	5a2										
Activation of the prompt alert and notification system - Exception areas	5a3				M						
Emergency information and instructions for the public and the media	5b1		M								
Support Operations/Facilities											
Mon / decon of evacuees and emergency workers, and registration of evacuees	6a1					M	M		M		
Mon / decon of emergency worker equipment	6b1								M		
Temporary care of evacuees	6c1							M			
Transportation and treatment of contaminated injured individuals	6d1										

4.2. Status of Jurisdictions Evaluated

B. Status of Jurisdictions Evaluated

This subsection provides information on the evaluation of each participating and functional entity in a jurisdiction-based, issues-only format. Presented below are definitions of the terms used in this subsection relative to criteria demonstration status.

Met – Listing of the demonstrated exercise evaluation area criteria under which no Deficiencies or ARCAs were assessed during this exercise and under which no ARCAs assessed during prior exercises remain unresolved.

Deficiency – Listing of the demonstrated exercise evaluation area criteria under which one or more Deficiencies were assessed during this exercise. Included is a description of each Deficiency and recommended corrective actions.

Area Requiring Corrective Action – Listing of the demonstrated exercise evaluation area criteria under which one or more ARCAs were assessed during the current exercise. Included is a description of the ARCAs assessed during this exercise and the recommended corrective actions to be demonstrated before or during the next biennial exercise.

Not Demonstrated – Listing of the exercise evaluation area criteria that were scheduled to be demonstrated during this exercise, but were not demonstrated and the reason they were not demonstrated.

Prior ARCAs – Resolved – Descriptions of ARCAs assessed during previous exercises that were resolved in this exercise and the corrective actions demonstrated.

Prior ARCAs – Unresolved – Descriptions of ARCAs assessed during prior exercises that were not resolved in this exercise. Included are the reasons the ARCAs remain unresolved and recommended corrective actions to be demonstrated before or during the next biennial exercise.

The following are definitions of the two types of exercise issues that are discussed in this report.

A Deficiency is defined in the FEMA-REP-14 as "...an observed or identified inadequacy

of organizational performance in an exercise that could cause a finding that offsite emergency preparedness is not adequate to provide reasonable assurance that appropriate protective measures can be taken in the event of a radiological emergency to protect the health and safety of the public living in the vicinity of a nuclear power plant."

An ARCA is defined in the FEMA-REP-14 as "...an observed or identified inadequacy of organizational performance in an exercise that is not considered, by itself, to adversely impact public health and safety."

The Federal Emergency Management Agency (FEMA) has developed a standardized system for numbering exercise issues (Deficiencies and ARCAs). This system is used to achieve consistency in numbering exercise issues among FEMA Regions and site-specific exercise reports within each Region. It is also used to expedite tracking of exercise issues on a nationwide basis.

The identifying number for Deficiencies and ARCAs includes the following elements, with each element separated by a hyphen (-).

Plant Site Identifier – A two-digit number corresponding to the Utility Billable Plant Site Codes.

Exercise Year – The last two digits of the year the exercise was conducted.

Evaluation Area Criterion – A letter and number corresponding to the criteria in the FEMA REP Exercise Evaluation Methodology.

Issue Classification Identifier – (D = Deficiency, A = ARCA). Only Deficiencies and ARCAs are included in exercise reports.

Exercise Issue Identification Number – A separate two digit indexing number assigned to each issue identified in the exercise.

4.2.1. State Jurisdictions

4.2.1.1. Beaver Valley Joint Public Information Center

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

4.2.1.2. PA State Field Monitoring Team A, South West Region

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

4.2.1.3. PA State Field Monitoring Team B, South West Region

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

4.2.1.4. Commonwealth of Pennsylvania State Traffic/Access Control Points

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

4.2.1.5. State of West Virginia Emergency Operations Center

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

4.2.1.6. West Virginia Public Information Center

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

4.2.1.7. West Virginia Accicent Assessment Center

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

ISSUE NO.: 03-06-2a1-P-02

ISSUE: The exposure control system in place for West Virginia is confusing

and inconsistent and does not list exposure limits in the proper units. There is also no information concerning the limits for declared pregnant workers. While the present system does give the reporting succession for worker exposures, it does not explicitly name who may authorize exposures above the established limits.

The guidelines are visually confusing: there is a table of "exceptions" that appears, at first glance, to list the exposure limits. The statement above the table "the PAG for all Emergency Workers (EWs) is 5 Rem, except for the following:" is easily overlooked. The instructions about which EWs are allowed up to 25 Rem while inside the plume exposure EPZ is unclear (specific job functions would be helpful). There is no information concerning limits for declared pregnant workers.

The limits are listed in "Rem" without any indication on how this value is determined. The direct-reading dosimeters (DRDs) have units of R (exposure), not Rem (dose). The limits given are the normal dose limits (total effective dose equivalent (TEDE), which is the sum of the effective dose equivalent (EDE) from external exposure and the committed effective dose equivalent (CEDE) from inhalation of contaminated air). DRDs can only measure the EDE portion of the TEDE. Initially, West Virginia personnel assume that there is no dose from inhalation of contaminated air (i.e., there are only noble gases in the release, no radioiodines and no particulates). If Beaver Valley Power Station dose assessment personnel provide information about the EDE/TEDE ratio being something other than 1, then a new limit based on this ratio is calculated (this calculation is not proceduralized). For releases that have a significant non-noble gas component over a short duration, this method could result in an actual dose higher than the 5 Rem dose limit before the new limit could be determined.

REASON UNRESOLVED: The State of West Virginia Emergency Response Plan, Annex 15, dated April 2008, contained pre-authorized exposure (turn-back) levels for various categories of EWs, which are one half of the dose limits for each category listed in a chart on page 15-19. The turn - back levels were stated in rems rather than Roentgens as they should be to properly reflect units recorded by Direct Reading Dosimeters (DRD). The dose limits contained in the Chart did not reflect the most recent recommended PAGS for emergency workers contained in USEPA Guidance in that they exceed 5

rem for 2 categories of EW who are not specifically tasked with life saving duties or the protection of valuable property.

4.2.1.8. West Virginia Field Air Monitoring Team

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

ISSUE NO.: 03-06-4a3-P-04

ISSUE: The West Virginia Field Monitoring Team Procedure details the collection, counting analysis, and reporting of air samples, however some information is missing and some actions should more properly be performed either at the Hancock County Emergency Operation Center (HCEOC) or the West Virginia State Operations Center (WVSEOC).

The procedure does not include taking ambient radiation surveys during air sample collection.

The procedure does require that the Field Monitoring Team (FMT) collect the sample, move to a background area, purge the sample, count the cartridge and filter separately calculating the air concentration and then reporting the count rate and concentration data to the response Team Leader (RTL) at the HCEOC. The RTL then communicates this to the WVSEOC.

CORRECTIVE ACTION DEMONSTRATED: During the time that the air sample was being drawn, the ambient radiological conditions in the area were being continuously monitored. When asked, the Field Team member correctly stated that this was to determine any changes in the ambient radiological conditions that may affect the air sample. However, contrary to the state response above, the procedure has not been revised to reflect this action. The affected procedure is the "West Virginia Field Monitoring Team

Standard Operating Procedure", dated June, 2008.

West Virginia OES provided the updated West Virginia Field Monitoring Team Standard Operating Procedures" Revision 6-B, dated September 2008, which contains instructions to conduct continuous ambient radiological surveying for safety.

f. PRIOR ISSUES - UNRESOLVED: 4.a.2.

ISSUE NO.: 03-06-4a2-P-05

ISSUE: The Response Team Leader (RTL) for WV at the Hancock County Emergency Operations Center (EOC) did not communicate wind direction/speed or release time.

REASON UNRESOLVED: Data provided to the Hancock County Emergency Operations Center was through Controller inject, as this was an out of sequence exercise outlined in the Extent of Play agreement. However, since this was an out of sequence event, implementation of the recommendations above could not be completely demonstrated.

4.2.2. Risk Jurisdictions

4.2.2.1. Beaver County Emergency Operations Center

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

f. PRIOR ISSUES - UNRESOLVED: None

4.2.2.2. Aliquippa Emergency Operations Center

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

b. AREAS REQUIRING CORRECTIVE ACTION: 3.c.1.

ISSUE NO.: 03-08-3c1-A-01

ISSUE: PADs are implemented for special population groups within areas subject to protective actions. (NUREG-0654, E.7., J.9., 10.c.d.e.g)

CONDITION: The Communications Officer did not notify Special Needs Facilities in the city at the Alert ECL, as specified in the plan, nor did the Emergency Management Coordinator ensure that this had been done until later than the plan specifies.

POSSIBLE CAUSE: Lack of familiarity with plans and not using procedures in the plan.

REFERENCE: City of Aliquippa Emergency Operation Plan

- SOP C, Emergency Management Coordinator, page C-7, 7th item
- Attachment C-2, SOP, Section C.2.3, Alert, page C-20, bullet 12
- Section C.2.4, SAE, page C-21, bullet 7
- SOP D, Communications Service Officer, Page D-3, first item
- Attachment D-3, Section D.3.3, bullet 12
- Notification and Resource Manual

EFFECT: If Special Needs facilities are not notified early there may not be adequate resources to implement an evacuation protective action that might occur.

RECOMMENDATION: Emergency workers should be trained to become familiar with and utilize their plans and procedures.

Schedule of Corrective Actions: PEMA comments, "All municipal plans and procudures have been rewritten and clearly deliniate that the county has primary responsibility for notifying special needs population facilities and the

municipalities must verify that this has occurred after each escalation at the plant. This will be demonstrated during the next biennial exercise."

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

4.2.2.3. Beaver Borough Emergency Operations Center

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

4.2.2.4. Beaver County, Beaver Borough, Back-up Route Alerting

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

4.2.2.5. Bridgewater/Fallston Emergency Operations Center

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

f. PRIOR ISSUES - UNRESOLVED: None

4.2.2.6. Brighton Township Emergency Operations Center

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

4.2.2.7. Beaver County, Brighton Township, Back-up Route Alerting

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

ISSUE NO.: 03-08-5a3-A-04

ISSUE: Activities associated with FEMA approved exception areas are completed within 45 minutes following the initial decision by authorized offsite emergency officials to notify the public of an emergency situation. Backup A&N of the public is completed within 45 minutes following the detection by the ORO of a failure of the primary A&N system. (NUREG-0654, E.6., Appendix 3.B.2.c)

CONDITION: The route alerting team did not run the route in the sector in which the siren failed to sound.

POSSIBLE CAUSE: Supervisory personnel in both the EOC and in the Fire House where route alerting teams were staged, were apparently so focused on demonstrating supplemental routes, they were inattentive when Beaver County reported that Siren 36 had failed and the Sector 2 routes should be run.

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

Brighton Township Emergency Operations Plan, Attachment F-1, "Public Alert/Notification and Route Alerting," pp. F-10—11

Brighton Township Route Alert Checklist

EFFECT: Failure to promptly notify residents in the event of a siren failure would delay their tuning in to their EAS station to obtain protective action instructions, thereby potentially placing them at risk.

CORRECTIVE ACTION DEMONSTRATED: Route alerting in Sector 2 was demonstrated at General Emergency by two vehicles, completing the routes, and all required procedures, in 45 minutes, thereby resolving this issue.

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

4.2.2.8. Center Township Emergency Operations Center

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

ISSUE NO.: 03-06-3b1-P-01

ISSUE: At 1959, emergency workers at the Center Township Emergency Operations Center (CTEOC) were directed by the Beaver County EOC through PMARS radio to take potassium iodide (KI). All personnel in the EOC were aware of this Precautionary Protective Action, but only the Radiological Service Officer and his Deputy recorded an entry in their "EPP EVENT LOG." Thus, there is no record that Police Officers in the field at TCP/ACP locations, or Fire/Rescue personnel in the field, providing route alerting and evacuation assistance were directed to ingest their provided KI.

CORRECTIVE ACTION DEMONSTRATED: Center Township Emergency Operations Center sucessfully demonstrated this criterion during the 24 June 08 Plume Exercise. Beaver County and it's constituant jurisdiction emergency operations centers employ a web-based communications system ("Knowledge Center") to relay directions, request resources, and confirm information. The log of the Center Township EOC indicates that at the General Emergency the EOC notified field personnel that the consumption of Potassium Iodide was directed.

f. PRIOR ISSUES - UNRESOLVED: None

4.2.2.9. Chippewa Township Emergency Operations Center

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

4.2.2.10. Beaver County, Chippewa Township, Back-up Route Alerting

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

ISSUE NO.: 03-08-5a3-A-05

ISSUE: Activities associated with FEMA approved exception areas are completed within 45 minutes following the initial decision by authorized offsite emergency officials to notify the public of an emergency situation. Backup A&N of the public is completed within 45 minutes following the detection by the ORO of a failure of the primary A&N system. (NUREG-0654, E.6., Appendix 3.B.2.c)

CONDITION: 45 minute timeframe allowed for back up route alerting caused by a failed siren was not met.

POSSIBLE CAUSE: There was a misunderstanding between the EOC fire personnel and the fire personnel located at the fire station as to who would dispatch staff to perform the route alert function.

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

EFFECT: Since siren #137 failed to sound, a number of residents may have not been informed of the emergency at Beaver Valley Power Station.

CORRECTIVE ACTION DEMONSTRATED: This issue was resolved by a successful re-demonstration at General Emergency (GE).

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

4.2.2.11. Frankfort Springs Borough, Hanover Township, Georgetown borough, Greene Township, Hookstown Borough Emergency Operations Center

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

4.2.2.12. Independence Township Emergency Operations Center

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

4.2.2.13. Industry Emergency Operations Center

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

4.2.2.14. Hopewell Township Emergency Operations Center

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

4.2.2.15. Beaver County, Hopewell Township, Back-up Route Alerting

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

4.2.2.16. Midland Emergency Operations Center

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

4.2.2.17. Monaca Emergency Operations Center

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

4.2.2.18. Beaver County, Monaca Back-up Route Alerting

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

4.2.2.19. Patterson Heights/Patterson Township Emergency Operations Center

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

4.2.2.20. Beaver County, Patterson Township, Back-up Route Alerting

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

4.2.2.21. Potter Township Emergency Operations Center

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

4.2.2.22. Raccoon Township Emergency Operations Center

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

4.2.2.23. Shippingport Emergency Operations Center

a. MET: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 3.a.1, 3.b.1, 3.c.1, 3.d.1, 3.d.2, 5.a.1.
b. AREAS REQUIRING CORRECTIVE ACTION: None
c. DEFICIENCY: None

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

4.2.2.24. South Beaver/Ohioville/Glasgow Emergency Operations Center

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

4.2.2.25. South Heights Emergency Operations Center

a. MET: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 3.a.1, 3.b.1, 3.c.1, 3.d.2, 5.a.1.
b. AREAS REQUIRING CORRECTIVE ACTION: 3.a.1.

ISSUE NO.: 03-08-3a1-A-06

ISSUE: OROs issue appropriate dosimetry and procedures, and manage radiological exposure to emergency workers IAW plans and procedures. Emergency workers periodically and at the end of each mission read and record dosimeter reading. (NUREG-0654, K.3)

CONDITION: The South Heights Borough Radiation Officer confused the requirements for wearing Self Reading Dosimeters with those for wearing Permanent Record Dosimeters. He stated all emergency workers were required to wear the SRDs and only one in three was required to wear the PRD.

POSSIBLE CAUSE: The South Heights Borough Radiation Officer did not reference his procedures during the emergency worker briefing.

REFERENCE: NUREG 0654, K.3.a

EFFECT: A permanent record of radiation exposure would not be available for the emergency worker(s).

CORRECTIVE ACTION DEMONSTRATED: The Radiation Officer should use his check sheets when briefing emergency workers.

Corrective action demonstrated.

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

4.2.2.26. Vanport Emergency Operations Center

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

4.2.2.27. Beaver County Emergency Worker Monitoring and Decontamination Station, Beaver Falls FD

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

4.2.2.28. Beaver County Emergency Worker Monitoring and Decontamination Station South Beaver Township Fire Department

a. MET: 1.e.1, 3.a.1, 6.a.1, 6.b.1.
b. AREAS REQUIRING CORRECTIVE ACTION: 6.a.1, 6.a.1.

ISSUE NO.: 03-08-6a1-A-02

ISSUE: Reception center/emergency worker facility has appropriate space, adequate resources, and trained personnel to provide monitoring, decontamination, and registration of evacuees and/or emergency workers. (NUREG-0654, J.10.h., K.5.b)

CONDITION: On Wednesday, May 14, 2008 at 1900, a South Beaver Fire Department (SBFD) emergency worker (EW), while performing the operational check of a Ludlum Model 2241-3 survey meter procedure, failed to clear the alarm during the source check.

POSSIBLE CAUSE: Inadequate training in radiological monitoring equipment checks.

REFERENCE: NUREG-0654, K.5.a.

South Beaver Fire Department Radiological Emergency Worker Decontamination Station Procedure, Attachment 3 (Radiological Monitoring Equipment Check), section IV.B.10) (page 18)

EFFECT: If the audible alarm is not reset following operational check of the survey meter, it is possible that the monitor may not note visually if an area being surveyed equals or exceeds 300 counts per minute which indicates contamination.

CORRECTIVE ACTION DEMONSTRATED: The operational check was stopped and the EW was retrained on the procedure. The training was completed at 1910. At 1912, the survey meter was successfully operationally checked. No further action is required.

ISSUE NO.: 03-08-6a1-A-03

ISSUE: Reception center/emergency worker facility has appropriate space, adequate resources, and trained personnel to provide monitoring, decontamination, and registration of evacuees and/or emergency workers. (NUREG-0654, J.10.h., K.5.b)

CONDITION: On Wednesday, May 14, 2008, at 1930, the South Beaver Fire Department (SBFD) monitor performing a thyroid survey of an emergency worker (EW) using a Ludlum Model 2241-3 survey meter failed to change from the Ludlum Model 44-9 probe to the Ludlum Model 44-2 probe and performed the survey using the window side of the Ludlum Model 44-9 probe.

POSSIBLE CAUSE: Inadequate training in radiological surveying procedures.

REFERENCE: NUREG-0654, K.5.a.

South Beaver Fire Department Radiological Emergency Worker Decontamination Station Procedure, Attachment 4 (Surveying and Decontamination Procedures), Section V.B.

EFFECT: By using the Ludlum Model 44-9 probe, the reading may be higher than the correct value due to the lack of probe shielding. This could result in a reading greater than 0.1 mR/hr above background and would necessitate referring the individual to a medical facility for further evaluation. With the proper probe (Ludlum Model 44-2) such an evaluation may not be necessary.

CORRECTIVE ACTION DEMONSTRATED: Between Wednesday, May 14, 2008 and Monday June 23, 2008, the procedure for thyroid survey was revised and the EWs were retrained. On Monday, June 23, 2008, between 1852 and 1902, the procedure was successfully redemonstrated. No further action is required.

c. DEFICIENCY: None
d. NOT DEMONSTRATED: None

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

4.2.2.29. Aliquippa School District

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

4.2.2.30. Aliquippa Elementary School

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

4.2.2.31. Beaver Area School Distirct

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

4.2.2.32. Beaver Area Junior Senior High School

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

4.2.2.33. Blackhawk School District

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

4.2.2.34. Patterson Primary School

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

4.2.2.35. Center Area School District

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

4.2.2.36. Center Area Junior High School, Center Area School District

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

4.2.2.37. Hopewell Area School District

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

4.2.2.38. Margaret Ross Elementary School

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

4.2.2.39. Midland Borough School District

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

4.2.2.40. Neel Elementary School

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

4.2.2.41. Monaca School District

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

4.2.2.42. Fifth Ward Elementary School, Monaca School District

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

4.2.2.43. New Brighton School District

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

4.2.2.44. Ambridge Area School District

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

4.2.2.45. South Side Area School District

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

4.2.2.46. South Side Middle School

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

4.2.2.47. Western Beaver Schools

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

4.2.2.48. Western Beaver Jr/Sr High School

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

4.2.2.49. Hancock County Emergency Operations Center

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

4.2.2.50. Hancock County Traffic and Access Control, County Court House

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

4.2.2.51. Hancock County Back-up Route Alerting, Oakland Fire Department

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

4.2.2.52. Hancock County Reception Center, Weir High School Complex

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

f. PRIOR ISSUES - UNRESOLVED: None

4.2.2.53. Hancock County Monitoring and Decontamination Center, Weir High School Complex

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

4.2.2.54. Hancock County Mass Care Center, Weir High School Complex

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

4.2.2.55. Hancock County Emergency Worker Monitor and Decontamination Station, New Cumberland Fire Department

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

4.2.2.56. Hancock County School District

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

4.2.2.57. Oak Glen High School, Hancock County School District

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

4.2.3. Support Jurisdictions

4.2.3.1. Allegheny County Emergency Operations Center

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

4.2.3.2. Allegheny Co Reception Center South Park Fair Grounds

a. MET: 6.a.1.
b. AREAS REQUIRING CORRECTIVE ACTION: None
c. DEFICIENCY: None

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

4.2.3.3. Allegheny County Monitoring and Decontamination Center, South Park Fair Grounds

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

4.2.3.4. Allegheny Co Mass Care Center, South Park High School

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

4.2.3.5. Butler County Emergency Operations Center

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

4.2.3.6. Butler County Reception Center, Slippery Rock University

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

4.2.3.7. Butler County Mass Care Center, Slippery Rock University

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

4.2.3.8. Butler County Monitoring and Decontamination Center

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

ISSUE NO.: 03-06-6a1-A-03

ISSUE: The team assigned to the Monitoring and Decontamination Center was not familiar with procedures, including:

a. Monitoring/decontamination sequences required when using portal monitor;

b. Identification of clean, or decontaminated, evacuees for admittance to Registration;

c. Methods employed to minimize contamination of the facility (e.g. step-off pads not used);

d. Signing to control traffic flow, such as identification of "clean" and "contaminated" zones, pathways, or areas;

e. Source check of portal monitor according to procedure;

f. Processing of personal items and valuables.

CORRECTIVE ACTION DEMONSTRATED: Issue Number 03-06-6.a.1-A-03 for the Monitoring and Decontamination Team not being familiar with procedures was closed with the demonstration for this exercise. Traffic flow was controlled to identify contaminated pathways. Personal items found to be contaminated were identified, bagged, and segregated. The portal monitor was source checked per procedure. Only evacuees free of contamination were identified for admittance to Registration. The monitoring and decontamination sequences were successfully demonstrated using the portal monitor and hand held survey meter.

f. PRIOR ISSUES - UNRESOLVED: None

4.2.3.9. Lawrence County Emergency Operations Center

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

4.2.3.10. Lawrence County Reception Center Mohawk Area High School

a. MET: 6.a.1.

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

4.2.3.11. Lawrence County Monitoring and Decontamination Center, Mohawk High School

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

4.2.3.12. Lawrence County Mass Care Center, Union High School

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

4.2.3.13. Washington County Emergency Operations Center

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

4.2.3.14. Washington Co Reception Center County Fair Grounds

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

4.2.3.15. Washington County Monitoring and Decontamination Center McGuffey High School

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

4.2.3.16. Washington County Mass Care Center, McGuffey Jr/Sr High School

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

APPENDIX 1

ACRONYMS AND ABBREVIATIONS

AAC	Accident Assessment Coordinator
ACEMA	Allegheny County Emergency Management Agency
ACP	Access Control Points
ALARA	As Low As Reasonably Achievable
ARC	American Red Cross
ARES	Amateur Radio Emergency Service
AS	Assistant Superintendent
BASD	Beaver Area School District
BASDEOP	Beaver Area School District Emergency Operations Plan
BB	Beaver Borough
BCEMA	Beaver County Emergency Management Agency
BCEOC	Beaver County Emergency Operations Center
BFD	Beaver Fire Department
BHS	Beaver High School
BHSP	Beaver High School Principal
BMSP	Beaver Middle School Principal
BSD	Blackhawk School District
BVIU	Beaver Valley Intermediate Unit
BVIUD	Beaver Valley Intermediate Unit Director
BVNPS	Beaver Valley Nuclear Power Station
BVPS	Beaver Valley Power Station
CC	Communications Center
CO	Communications Officer
DC	Dosimetry Coordinator
DRD	Direct Reading Dosimeter
EAL	Emergency Action Level
EAS	Emergency Alert System
ECL	Emergency Classification Level
EMA	Emergency Management Agency
EMC	Emergency Management Coordinator
EMD	Emergency Management Director
EMS	Emergency Medical Services
EOC	Emergency Operations Center
EOF	Emergency Operating Facility
EOP	Emergency Operations Plan
EPZ	Emergency Planning Zone
ERDS	Emergency Response Data System
ERF	Emergency Response Facility
EW	Emergency Workers
EWDC	Emergency Worker Decontamination Center
FEMA	Federal Emergency Management Agency
FENOC	First Energy Nuclear Operating Company
FMP	Field Monitoring Point

FMT	Field Monitoring Team
FTC	Field Team Coordinator
GE	General Emergency
GEC	Gold Executive Conference
GIS	Geographic Information System
GPS	Global Positioning System
HCCC	Hancock County Communications Center
HCEN	Hancock County Emergency Network
HCEOC	Hancock County Emergency Operations Center
HS	High School
ICS	Incident Command System
IP	Internet Protocol
IU	Intermediate Unit
JIC	Joint Information Center
JPIC	Joint Public Information Center
KC	Knowledge Center
LCEMA	Lawrence County Emergency Management Agency
MCC	Mass Care Center
MPD	Monaca Police Department
MSD	Medical Services Director
MT	McCarter Transportation
NCVFD	New Cumberland Volunteer Fire Department
NRC	Nuclear Regulatory Commission
PA	Public Address
PAD	Protective Action Decisions
PAG	Protective Action Guides
PAR	Protective Action Recommendation
PC	Personal Computer
PEMA	Pennsylvania Emergency Management Agency
PEMARS	Pennsylvania Emergency Management Agency Radio System
PEMRS	Pennsylvania Emergency Management Radio System
PES	Patterson Elementary School
PHBVFD	Patterson Heights Borough Volunteer Fire Department
PIC	Public Information Center
PIO	Public Information Officer
PRD	Permanent Record Dosimeter
PSP	Pennsylvania State Police
RAC	Radiological Assistance Committee
RACES	Radio Amateur Communications Emergency Services
RC	Reception Center
RCO	Rumor Control Officer
REACT	Radio Emergency Assistance Communications Team
REP	Radiological Emergency Planning
RO	Radiological Officer
RPO	Radiological Protection Officer
RSO	Radiological Safety Officer
SAE	Site Area Emergency
SBFD	South Beaver Fire Department
SEOC	State Emergency Operations Center

SHO	State Health Officer
SOP	Standard Operating Procedure
SRHS	Slippery Rock High School
SSO	School Services Officer
TC	Transportation Coordinator
TCP	Traffic Control Points
TEDE	Total Effective Dose Equivalent
TO	Transportation Officer
VFD	Volunteer Fire Department
VHF	Very High Frequency
WV	West Virginia

APPENDIX 2

EXERCISE EVALUATORS AND TEAM LEADERS

DATE: 2008-06-24, SITE: Beaver Valley Power Station, PA

LOCATION	EVALUATOR	AGENCY
Beaver Valley Joint Public Information Center	Gary Bolender	ICF
PA State Field Monitoring Team A, South West Region	W. Morrison Jackson	ICF
PA State Field Monitoring Team B, South West Region	Ronald Biernacki	ICF
Commonwealth of Pennsylvania State Traffic/Access Control Points	DeeEll Fifield	ICF
State of West Virginia Emergency Operations Center	David Petta Chris Thompson	ICF FAA
West Virginia Public Information Center	Paul Nied	ICF
West Virginia Accicent Assessment Center	James Hickey	ICF
West Virginia Field Air Monitoring Team	Paul Cromier	ICF
Beaver County Emergency Operations Center	Marcy Campbell DeeEll Fifield Richard Wessman	ICF ICF ICF
Aliquippa Emergency Operations Center	Deborah Bell	ICF
Beaver Borough Emergency Operations Center	Clark Cofer Robert Duggleby	ICF ICF
Beaver County, Beaver Borough, Back-up Route Alerting	Robert Duggleby	ICF
Bridgewater/Fallston Emergency Operations Center	John Flynn	ICF
Brighton Township Emergency Operations Center	Michael Meshenberg Michael Petullo	ICF ICF
Beaver County, Brighton Township, Back-up Route Alerting	Michael Meshenberg	ICF
Center Township Emergency Operations Center	Michael Burriss	ICF
Chippewa Township Emergency Operations Center	Robert Gantt Quirano Iannazzo	ICF ICF
Beaver County, Chippewa Township, Back-up Route Alerting	Robert Gantt	ICF
Frankfort Springs Borough, Hanover Township, Georgetown borough, Greene Township, Hookstown Borough Emergency Operations Center	Robert Lemeshka George R MacDonald	ICF ICF
Independence Township Emergency Operations Center	Kieth Earnshaw	ICF
Industry Emergency Operations Center	Gary Goldberg	ICF
Hopewell Township Emergency Operations Center	Albert Lookabaugh	ICF
Beaver County, Hopewell Township, Back-up Route Alerting	Roger Jobe	ICF
Midland Emergency Operations Center	Simon Guereca	ICF
Monaca Emergency Operations Center	Mark Dalton	ICF
Beaver County, Monaca Back-up Route Alerting	Nick Lowe	ICF
Patterson Heights/Patterson Township Emergency Operations Center	William Edmonson	ICF
Beaver County, Patterson Township, Back-up Route Alerting	Lenora Borchardt	ICF
Potter Township Emergency Operations Center	Michael Burns	ICF
Raccoon Township Emergency Operations Center	Ernest Boaze	ICF
Shippingport Emergency Operations Center	Earl Shollenberger	ICF
South Beaver/Ohioville/Glasgow Emergency Operations Center	Nancy Johnson Denise Solomon	ICF ICF
South Heights Emergency Operations Center	Marynette Herndon	ICF
Vanport Emergency Operations Center	David White	ICF
Beaver County Emergency Worker Monitoring and Decontamination Station, Beaver Falls FD	Ronald Biernacki	ICF
Beaver County Emergency Worker Monitoring and Decontamination Station South Beaver Township Fire Department	Steve Denson	ICF

Aliquippa School District	Ronald Biernacki	ICF
Aliquippa Elementary School	Ronald Biernacki	ICF
Beaver Area School Distirct	Steve Denson	ICF
Beaver Area Junior Senior High School	Steve Denson	ICF
Blackhawk School District	James Hickey	ICF
Patterson Primary School	James Hickey	ICF
Center Area School District	Jill Leatherman	ICF
Center Area Junior High School, Center Area School District	Jill Leatherman	ICF
Hopewell Area School District	Michael Petullo	ICF
Margaret Ross Elementary School	Michael Petullo	ICF
Midland Borough School District	David Stuenkel	ICF
Neel Elementary School	David Stuenkel	ICF
Monaca School District	Patrick Taylor	ICF
Fifth Ward Elementary School, Monaca School District	Patrick Taylor	ICF
New Brighton School District	Robert Black	ICF
Ambridge Area School District	Gary Bolender	ICF
South Side Area School District	John Flynn	ICF
South Side Middle School	John Flynn	ICF
Western Beaver Schools	Lawrence Visniesky	ICF
Western Beaver Jr/Sr High School	Lawrence Visniesky	ICF
Hancock County Emergency Operations Center	W. Lyle Slagle Joseph Suders Jim Torgler Lawrence Visniesky	ICF FEMA RIII ICF ICF
Hancock County Traffic and Access Control, County Court House	Patrick Taylor	ICF
Hancock County Back-up Route Alerting, Oakland Fire Department	Paul Nied	ICF
Hancock County Reception Center, Weir High School Complex	David Stuenkel	ICF
Hancock County Monitoring and Decontamination Center, Weir High School Complex	David Stuenkel	ICF
Hancock County Mass Care Center, Weir High School Complex	David Stuenkel	ICF
Hancock County Emergency Worker Monitor and Decontamination Station, New Cumberland Fire Department	Patrick Taylor	ICF
Hancock County School District	Lawrence Visniesky	ICF
Oak Glen High School, Hancock County School District	Lawrence Visniesky	ICF
Allegheny County Emergency Operations Center	Rosemary Samsel	ICF
Allegheny Co Reception Center South Park Fair Grounds	Robert Black	ICF
Allegheny County Monitoring and Decontamination Center, South Park Fair Grounds	James Hickey	ICF
Allegheny Co Mass Care Center, South Park High School	Robert Black	ICF
Butler County Emergency Operations Center	Wendy Swygert	ICF
Butler County Reception Center, Slippery Rock University	Gary Bolender	ICF
Butler County Mass Care Center, Slippery Rock University	Gary Bolender	ICF
Butler County Monitoring and Decontamination Center	Jill Leatherman	ICF
Lawrence County Emergency Operations Center	William Vocke	ICF
Lawrence County Reception Center Mohawk Area High School	John Flynn	ICF
Lawrence County Monitoring and Decontamination Center, Mohawk High School	Michael Petullo	ICF
Lawrence County Mass Care Center, Union High School	John Flynn	ICF
Washington County Emergency Operations Center	Patrick Taylor	ICF
Washington Co Reception Center County Fair Grounds	Lawrence Visniesky	ICF

Washington County Monitoring and Decontamination Center McGuffey High School	David Stuenkel	ICF
Washington County Mass Care Center, McGuffey Jr/Sr High School	Lawrence Visniesky	ICF
* Team Leader		

APPENDIX 3

EXERCISE EVALUATION AREAS AND EXTENT OF PLAY

COMMON WEALTH OF PENNSYLVANIA

BEAVER VALLEY POWER STATION
2008 RADIOLOGICAL EMERGENCY PREPAREDNESS EXERCISE

METHOD OF OPERATION

March 27, 2008

1. **Beaver Valley Power Station**

The facility normally uses off-watch section personnel to participate in the exercise. The plant's simulated events, radiation readings, and emergency classifications will trigger offsite exercise actions. BVPS will notify the State EOC, the Bureau of Radiation Protection (BRP), and the risk county of emergency classifications.

2. **Bureau of Radiation Protection (BRP)**

Personnel will be present at the State EOC, the nuclear facility EOF, and at field locations. Only the field teams will be evaluated.

3. **PEMA Operations at State EOC / PEMA Headquarters**

This "Method of Operation" Document includes activities for the Full-Scale Plume Exercise (June 24, 2008), and the "Out of Sequence" Activities (May 14, 2008).

A. Plume Exercise – June 24, 2008

PEMA Bureau of Operations and Training staff, augmented by designated PEMA personnel from the Fire Commissioner's Office, the Bureau of Administration, Technical Services, Plans, plus Emergency Preparedness Liaison Officers (EPLOs) with accompanying response team members from designated state departments/agencies, including representatives from the USDA State Emergency Board will comprise initial operations at the State Emergency Operations Center (EOC). The State EOC will not be evaluated during this exercise.

B. Plume Exercise – "Out of Sequence" Activities – May 14, 2008.

PEMA Bureau of Operations and Training staff, augmented by designated PEMA personnel will disseminate exercise related messages to the participating Counties

for dissemination to the participating School Districts during the morning of May 14, 2008. The State Emergency Operations Center (EOC) and County EOCs will NOT be evaluated during the "Out of Sequence" component. PEMA personnel will serve as "observers" at the identified School Districts.

C. "Out of Sequence" Activities – May 14, 2008.

PEMA personnel will serve as "Observers" at the various field exercise locations during the evening "Out-of-Sequence" component May 14, 2008. An exercise coordinator will remain in the State EOC. The State Emergency Operations Center (EOC) and Counties will NOT be evaluated during the evening "Out of Sequence" component.

4. PEMA Area Office Operations

The PEMA Area Office at Indiana will not be activated or evaluated during this exercise. Selected staff of the area office will serve as liaison officers to the risk and support counties as assigned. Liaison officers are exercise participants.

5. Counties Designated to Participate

The risk county (Beaver), in coordination with PEMA, will demonstrate the capability to mobilize appropriate staff, activate their respective Emergency Operations Centers and implement emergency response operations to include sheltering and/or evacuation. County government will provide direction and coordination to risk municipalities. The four support counties (Allegheny, Butler, Lawrence, and Washington) will participate in their assigned support roles. Actual sheltering or evacuation of the general public will be simulated.

6. PEMA Liaison Officers

Liaison officers will be present at the participating risk county EOC, the BVPS Emergency Operations Facility (EOF), Joint Information Center (JIC), and the Ohio and West Virginia EOCs to provide assistance, guidance, and support. These liaison officers will participate as players in the exercise. These liaison officers will participate as players in the plume phase exercise on June 24, 2008.

7. Controllers

Controllers will be present at the emergency worker monitoring/decontaminating stations and the mass care monitoring/ decontamination centers (May 14, 2008). Controllers are not players. Controllers will provide pre-approved injects and information to the players, as appropriate, regarding radiological readings during the monitoring of personnel. Live radioactive sources will not be used. ***Exception:***

individuals tasked with the setup of portal monitoring equipment will use a standard 1 micro curie Cesium 137 source for the purpose of conducting operational tests. Additionally, appropriate test sources will be available and used to verify the operation of the monitoring / survey instruments per manufacturers recommendations.

8. PEMA Observers

PEMA staff, qualified county emergency management personnel, and/or nuclear power plant personnel will be assigned if required to key locations for the purpose of observing, noting response actions and conditions, and recording observations for future use. Observers will not take an active part in the proceedings, but will interact with staff members to the extent necessary to fulfill their observer responsibilities. Coaching of players by observers is not permitted except to provide training to participants awaiting a re-demonstration. (Refer to paragraph 13)

9. FEMA Evaluators

Out of Sequence Period (May 14, 2008): Federal evaluators will be present at the identified "out-of-sequence" demonstration sites per Attachment A, Section I.1 These include the identified Public School Districts. They will also be present at identified Reception Centers, Emergency Worker Monitoring and Decontamination Stations, Mass Care Shelters, and Monitoring and Decontamination Centers, as identified in Attachment A, Section I.B.1, I.B.2 and I.B.3.

Plume Phase Exercise (June 24, 2008): Federal evaluators will be present at the identified risk and support county EOC's to evaluate player response to the actual and simulated events in the exercise scenario.

10. Demonstration Windows

In order to provide for more effective demonstrations, as well as to permit the release of volunteers from exercise play at a reasonable hour, periods of time (Demonstration Windows) have been designated during which specified actions will be accomplished / demonstrated.

The "demonstration windows" for this exercise are:

A. Plume Phase Exercise

The out-of-sequence MS-1 hospital demonstration was federally evaluated at Ellwood City Hospital, Lawrence County, December 12, 2007.

The out-of-sequence exercise window for school demonstrations will be from 9:00 until 11:00 on May 14, 2008.

The out-of-sequence demonstration of reception centers, mass care centers, monitoring / decontamination centers and emergency worker stations will be conducted from 7:00 - 9:30 p.m. on May 14, 2008. Locations are specified within Attachment A, Section II.

The out-of-sequence interview of Pennsylvania State Police traffic control/access control points will be from 1:00 p.m. - 3:00 p.m. June 24, 2008.

All demonstrations will commence promptly and, barring any complications, not continue beyond the time of the designated demonstration window.

County and municipal EOC operations will be conducted on June 24, 2008. (Please refer to the Extent of Play Demonstration Tables, Attachment A).

B. Post Plume Exercise

No post-plume phase exercise is scheduled during this evaluation.

11. Stand-down

All jurisdictions will request approval on a jurisdiction by jurisdiction basis prior to stand-down.

a. Upon completion of all requirements and after having informed the FEMA evaluator that all evaluation areas have been demonstrated and/or completed, the risk municipality EOCs may request approval from their county EOC to terminate the exercise.

b. Support counties may likewise request approval to terminate the exercise upon completion of all evaluated objectives from the state EOC.

c. The risk county EOC will remain operational until the exercise is officially terminated by the State. **The State EOC will issue an Exercise Termination Message.**

12. General Concepts

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

plan there is a failure to protect the public health and safety, it should be noted so that the plan can be modified and the appropriate negative assessment applied.

13. Re-demonstrations

During the exercise any activity that is not satisfactorily demonstrated may be re-demonstrated by the participants during the exercise provided it does not negatively interfere with the exercise. Refresher training can be provided by the players, observers, and/or controllers. Evaluators are not permitted to provide refresher training. Re-demonstrations will be negotiated between the players, observers, controllers, and evaluators. The RAC Chair/designee will be advised prior to initiating any re-demonstrations. It is permissible to extend the evaluation time to accommodate the re-demonstration. Activities corrected from a re-demonstration will be so noted.

EXTENT OF PLAY AGREEMENT

EVALUATION AREA 1
Emergency Operations Management

Sub-element 1.a – Mobilization

INTENT

This sub-element derives from NUREG-0654, which provides that Offsite Response Organizations (ORO) should have the capability to alert, notify, and mobilize emergency personnel and to activate and staff emergency facilities.

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

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 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.

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

PEMA Negotiated Extent of Play:

Pre-positioning of state emergency personnel (Liaison Officers) at the Emergency Operations Facility (EOF), the Media Operations Center (MOC) and Risk and Support Counties is appropriate due to the commuting distance from the individual's duty location or residence. Risk municipalities will conduct call-outs to demonstrate the mobilization of key personnel.

- *Actual calls (or pager notifications) will be made to the municipal EOC personnel for the Plume Phase exercise, June 24, 2008, per plans and procedures.*
- *In all instances, the demonstration of a shift change is **NOT** required. Twenty-four hour staffing will be demonstrated by means of a roster or staffing chart.*
- *All out-of-sequence players and equipment will be pre-positioned (School District personnel, Pennsylvania State Police ACP, Reception Centers, Emergency Worker Monitoring and Decontamination Stations and Monitoring and Decontamination Centers).*
- *Individuals working in state facilities and county EOCs may be pre-positioned for the plume phase.*
- *County and state locations for individuals may be prepositioned for the plume phase.*

Sub-element 1.b – Facilities

INTENT

This sub-element derives from NUREG-0654, which provides that Offsite Response Organizations (ORO) have facilities to support the emergency response.

Criterion 1.b.1: Facilities are sufficient to support the emergency response. (NUREG-0654, H.3)

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.)

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

PEMA Negotiated Extent of Play: None

Sub-element 1.c - Direction and Control

INTENT

This sub-element derives from NUREG-0654, which provides that Offsite Response Organizations (ORO) have the capability to control their overall response to an emergency.

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

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.

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

PEMA Negotiated Extent of Play: *None*

Sub-element 1.d – Communications Equipment

INTENT

This sub-element derives from NUREG-0654, which provides that Offsite Response Organizations (ORO) 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.

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, F.1, 2)

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 systems are 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 exists. 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, as negotiated in the extent of play agreement.

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

PEMA Negotiated Extent of Play:

Risk and Support Counties will communicate with the State EOC via SEVAN (primary) and e-mail (secondary.) PASTAR, State 800 MHz Radio System, and commercial telephone are available for back-up. The State EOC may communicate with the utility and the risk counties via dedicated telephone circuits, conference bridges, commercial "dial-up" lines, or other available means.

Risk Counties will communicate with their risk municipalities via public safety radio frequencies (EMA Radio), Commercial Telephone, Fax, or Amateur Radio Communications (ARES / RACES) or other available means.

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

INTENT

This sub-element derives from NUREG-0654, which provides that Offsite Response Organizations (ORO) have emergency equipment and supplies adequate to support the emergency response.

Criterion 1.e.1: Equipment, maps, displays, dosimetry, potassium iodide (KI), and other supplies are sufficient to support emergency operations. (NUREG-0654, H.7,10; J.10.a, b, e, J.11; K.3.a)

EXTENT OF PLAY

Equipment within the facility (facilities) should be sufficient and consistent with the role assigned to that facility in the ORO's plans and/or procedures in support of emergency operations. Use of maps and displays is encouraged.

All instruments should be inspected, inventoried, and operationally checked before each use. Instruments should be calibrated in accordance with the manufacturer's recommendations. Unmodified CDV-700 series instruments and other instruments without a manufacturer's recommendation should be calibrated annually. Modified CDV-700 instruments should be calibrated in accordance with the recommendation of the modification manufacturer. A label indicating such calibration should be on each instrument, or calibrated frequency can be verified by other means. Additionally, instruments being used to measure activity should have a range of reading sticker affixed to the side of the instrument. The above considerations should be included in 4.a.1 for field team equipment; 4.c.1 for radiological laboratory equipment (does not apply to analytical equipment; reception center and emergency worker facilities' equipment under 6.a.1; and ambulance and medical facilities' equipment under 6.d.1.

Sufficient quantities of appropriate direct-reading and permanent record dosimetry and dosimeter chargers should be available for issuance to all categories of emergency workers that could be deployed from that facility. Appropriate direct-reading dosimetry should allow individual(s) to read the administrative reporting limits and maximum exposure limits contained in the ORO's plans and procedures.

Dosimetry should be inspected for electrical leakage at least annually and replaced, if necessary. CDV-138s, due to their documented history of electrical leakage problems, should be inspected for electrical leakage at least quarterly and replaced if necessary. This leakage testing will be verified during the exercise through documentation.

Responsible OROs should demonstrate the capability to maintain inventories of KI sufficient for use by emergency workers, as indicated on rosters; institutionalized individuals, as indicated in capacity lists for facilities; and, where stipulated by the plan and/or procedures, members of the general public (including transients) within the plume pathway EPZ.

Quantities of dosimetry and KI available and storage locations(s) will be confirmed by physical inspection at storage location(s) or through documentation of current inventory submitted during the exercise. Available supplies of KI should 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.

At locations where traffic and access control personnel are deployed, appropriate equipment (for example, vehicles, barriers, traffic cones and signs, etc.) should be available or their availability described.

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

PEMA Negotiated Extent of Play:

In Pennsylvania CDV-700s are calibrated every 4-years. Support counties do not have DRDs, or KI, but those responsible for reception centers and/or monitoring and decontamination centers will have simulated PRDs.

Evaluation of KI quantities will be verified using inventory sheets. KI will not be removed from storage locations and boxes/packages will not be opened. KI questions will be addressed through interviews.

Leakage testing verification and KI extension letters will be available to the evaluator.

Dosimetry and KI are not pre-distributed in Beaver County. Evaluation of this sub-element will take place at the Beaver County Hazmat Garage.

EVALUATION AREA 2
Protective Action Decision-Making

Sub-element 2.a - Emergency Worker Exposure Control

INTENT

This sub-element derives from NUREG-0654, which provides that Offsite Response Organizations (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 emergency workers may be permitted to incur during an emergency. These limits include any pre-established administrative reporting limits (that take into consideration Total Effective Dose Equivalent or organ-specific limits) identified in the ORO's plans and procedures.

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

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.

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

PEMA Negotiated Extent of Play: None.

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

INTENT

This sub-element derives from NUREG-0654, which provides that Offsite Response Organizations (ORO) have the capability to use all available data to independently project integrated dose 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 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 (for example, other affected OROs), availability of appropriate in-place shelter, weather conditions, and situations that create higher than normal risk from evacuation.

Criterion 2.b.1: Appropriate protective action recommendations are based on available information on plant conditions, field monitoring data, and licensee and ORO dose projections, as well as knowledge of onsite and offsite environmental conditions. (NUREG-0654, I.8, 10 and Supplement 3)

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 the licensee provides release and meteorological data, 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.

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

PEMA Negotiated Extent of Play: *None.*

Criterion 2.b.2: A decision-making process involving consideration of appropriate factors and necessary coordination is used to make protective action decisions (PAD) for the general public (including the recommendation for the use of KI, if ORO policy). (NUREG-0654, J.9, 10.f,m)

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. 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.

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

PEMA Negotiated Extent of Play: *None.*

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

INTENT

This sub-element derives from NUREG-0654, which provides that Offsite Response Organizations (ORO) should have the capability to determine protective action recommendations, including evacuation, sheltering and use of potassium iodide (KI), if applicable, for special population groups (for example, 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.

Criterion 2.c.1: Protective action decisions are made, as appropriate, for special population groups. (NUREG-0654, J.9, J.10.d,e)

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, availability of transportation assets, risk of evacuation vs. risk from the avoided dose, and precautionary school evacuations. In situations were an institutionalized population cannot be evacuated, the administration of KI should be considered by the OROs.

Applicable OROs should demonstrate the capability to alert and notify all public school systems/districts of emergency conditions that are expected to or may necessitate protective actions for students. Contacts with public school systems/districts must be actual.

In accordance with plans and/or procedures, OROs and/or officials of pubic school systems/districts should demonstrate the capability to make prompt decisions on protective actions for students. Officials should demonstrate that the decision making process for protective actions considers (that is, either accepts automatically or gives heavy weight to) protective action recommendations made by ORO personnel, the ECL at which these recommendations are received, preplanned strategies for protective actions for that ECL, and the location of students at the time (for example, whether the students are still at home, en route to the school, or at the school).

All decision-making activities associated with protective actions, including consideration of available resources, for special population groups must be based on the ORO's plans and procedures and completed, as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

PEMA Negotiated Extent of Play: *None*

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

This sub-element will not be evaluated during this exercise.

Sub-element 2.e. – Radiological Assessment and Decision-Making Concerning Relocation, Re-entry, and Return

This sub-element will not be evaluated during this exercise.

EVALUATION AREA 3

Protective Action Implementation

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

INTENT

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

> **Criterion 3.a.1: The OROs issue appropriate dosimetry 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. (NUREG-0654, K.3.a,b)**

EXTENT OF PLAY

OROs should demonstrate the capability to provide appropriate direct-reading and permanent record dosimetry, dosimeter chargers, 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 ORO's plans and procedures.

Each emergency worker should have the basic knowledge of radiation exposure limits as specified in the ORO's plan and/or procedures. Procedures to monitor and record dosimeter readings and to manage radiological exposure control should be demonstrated.

During a plume phase exercise, emergency workers should demonstrate the procedures to be followed when administrative exposure limits and turn-back values are reached. The emergency worker should report accumulated exposures during the exercise as indicated in the plans and procedures. OROs should 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 scenario events do not require emergency workers to seek authorizations for additional exposure, evaluators should interview at least two emergency workers, to determine their knowledge of whom to contact in the event authorization is needed and at what exposure levels. Emergency workers may use any

available resources (for example, 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 effected for all members of the team by one dosimeter worn by the team leader. Emergency workers who are assigned to low exposure rate areas, for example, 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 dosimetry. Individuals without specific radiological response missions, such as farmers for animal care, essential utility service personnel, or other members of the public who must re-enter an evacuated area following or during the plume passage, should be limited to the lowest radiological exposure commensurate with completing their missions.

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

PEMA Negotiated Extent of Play:

Radiological briefings will be provided to address exposure limits and procedures to replace those approaching limits and how permission to exceed limits is obtained from the municipality and county. Emergency workers will also be briefed on when to take KI and on whose authority. Distribution of KI will be simulated. The completion of a KI report form will be demonstrated.

OROs should also demonstrate the use of all dosimetry forms.

At any time, players may ask other players or supervisors to clarify radiological information.

In Pennsylvania, emergency workers do not have turn back values.

Emergency workers who are assigned to low exposure rate areas, e.g., at reception centers, counting laboratories, emergency operations centers, and communications centers, may have individual permanent record dosimeters or they may be monitored by dosimeters strategically placed in the work area. In Pennsylvania this will be accomplished through the use of an area kit. The area kit process is explained in state, county and municipal plans.

Standard issue of dosimetry and potassium iodide for each category of emergency worker is as follows:

Category A: 1 PRD, 1 DRD, and 1 unit of KI
Category B: 1 PRD and 1 unit of KI
Category C: 1 PRD

All locations that have dosimetry equipment indicated within their Radiological Emergency Response Plan (RERP), will make the dosimetry equipment (and KI) available for inspection by the Federal Evaluator. Simulation PRDs with mock serial numbers will be used.

Sub-element 3.b – Implementation of KI Decision

INTENT

This sub-element derives from NUREG-0654, which provides that Offsite Response Organizations (ORO) 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 and is reflected in ORO's plans and procedures. Provisions should include the availability of adequate quantities, storage, and means of the distribution of radioprotective drugs.

> **Criterion 3.b.1: KI and appropriate instructions are available should a decision to recommend use of KI be made. Appropriate record keeping of the administration of KI for emergency workers and institutionalized individuals is maintained. (NUREG-0654, J. 10. e)**

EXTENT OF PLAY

Offsite Response Organizations (ORO) should demonstrate the capability to make KI available to emergency workers, institutionalized individuals, and, where provided for in the ORO plan and/or procedures, to members of the general public. OROs should demonstrate the capability to accomplish distribution of KI consistent with decisions made. Organizations should have the capability to develop and maintain lists of emergency workers and institutionalized individuals who have ingested KI, including documentation of the date(s) and time(s) they were instructed to ingest KI. The ingestion of KI recommended by the designated ORO health official is voluntary. For evaluation purposes, the actual ingestion of KI is not necessary. OROs should demonstrate the capability to formulate and disseminate appropriate instructions on the use of KI for those advised to take it. If a recommendation is made for the general public to take KI, appropriate information should be provided to the public by the means of notification specified in the ORO's plan and/or procedures.

Emergency workers should demonstrate the basic knowledge of procedures for the use of KI whether or not the scenario drives the use of KI. This can be accomplished through an interview by the evaluator.

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

PEMA Negotiated Extent of Play:

Within Pennsylvania, the Pennsylvania Department of Health is responsible for distribution of KI to the general public located within the EPZ. Pre-distribution is accomplished on an annual basis. KI is not distributed to the general public at the time of an emergency.

Evaluation of emergency worker KI quantities will be verified using inventory sheets. KI will not be removed from storage locations and boxes will not be opened. KI questions will be addressed through interviews.

Personnel assigned to operate Monitoring / Decontamination centers and stations are not issued DRDs or KI since the centers/stations are located outside the EPZ. Each will be issued a simulated PRD with mock serial numbers.

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

INTENT

This sub-element derives from NUREG-0654, which provides that Offsite Response Organizations (ORO) 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.

> **Criterion 3.c.1: Protective action decisions are implemented for special populations other than schools within areas subject to protective actions. (NUREG-0654, J.10.c,d,g)**

EXTENT OF PLAY

Applicable OROs should demonstrate the capability to alert and notify (for example, 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.

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

PEMA Negotiated Extent of Play:

Lists of people with special needs are maintained at the municipal EOCs. Copies of these lists will not be provided to the evaluators however; evaluators will be able to inspect these lists during the exercise.

Initial contact with special population facilities will be actual (hospitals, nursing homes and correctional facilities). All subsequent calls will be simulated. Actual contacts (up to two) will be made with transportation providers as per plan. All actual and simulated contacts should be logged.

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

EXTENT OF PLAY

Public school systems/districts shall demonstrate the ability to implement protective action decisions for students. The demonstration shall be made as follows: 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) should 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 the plan and/or procedures, should be verified.

Officials of the school system(s) should 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.

The provisions of this criterion also apply to any private schools, private kindergartens and day care centers that participate in REP exercises pursuant to the ORO's plans and procedures as negotiated in the Extent of Play Agreement.

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

PEMA Negotiated Extent of Play:

School students will not be involved during the exercise. Actions and activities associated with the demonstration of Criterion 3.c.2 will be limited to the school district administration key personnel and the county. Evacuation of students will be conducted through an interview process with school district personnel or the building principal.

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

Risk County school plans do not require communications between the school and vehicles. Bus drivers are not considered emergency workers and therefore do not require dosimetry.

Private schools, private kindergartens, and day care centers do not participate in REP exercises. However, OROs will be prepared to show evaluators lists of these facilities that they will contact in the event of an emergency in accordance with plans and procedures. Any simulated contacts should be logged.

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

INTENT

This sub-element derives from NUREG-0654, which provides that Offsite Response Organizations (ORO) 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.

> **Criterion 3.d.1: Appropriate traffic and access control is established. Accurate instructions are provided to traffic and access control personnel. (NUREG-0654, J.10.g, j)**

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.

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.

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

PEMA Negotiated Extent of Play:

Municipal traffic and access control will be demonstrated by interview at the applicable EOC of jurisdiction. The traffic/access control personnel will not be deployed to the traffic/access control point(s). If the designated assignment is a location within the EPZ a radiological briefing will be provided to the assigned individuals.

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

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.

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

PEMA Negotiated Extent of Play:

ORO's should demonstrate the capability, as required by the scenario, to identify and take appropriate actions concerning impediments to evacuation. Actual dispatch of resources to deal with impediments, such as tow trucks, need not be demonstrated; however, simulated contacts will be logged.

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

This sub-element will not be evaluated during this exercise.

Sub-element 3.f – Implementation of Relocation, Re-entry, and Return Decisions

This sub-element will not be evaluated during this exercise.

EVALUATION AREA 4
Field Measurement And Analysis

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

INTENT

This sub-element derives from NUREG-0654, 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 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. Adequate equipment and procedures are essential to such field measurement efforts.

> **Criterion 4.a.1: The field teams are equipped to perform field measurements of direct radiation exposure (cloud and ground shine) and to sample airborne radioiodine and particulates. (NUREG-0654, H.10; I.7, 8, 9).**

EXTENT OF PLAY

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

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

PEMA Negotiated Extent of Play:

Department of Environmental Protection (DEP), Bureau of Radiation Protection (BRP) field teams are equipped with the necessary instrumentation and supplies. Evaluators will meet the field teams at ***the DEP South Western Regional Office at 1:30 p.m. on June 24, 2008*** *to observe instrumentation checks and equipment inventory verification.*

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

EXTENT OF PLAY

Responsible Offsite Response Organizations (ORO) 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 licensee 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 licensee 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 (FRERP), and other resources (for example, compacts, utility, etc), if available. Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

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

PEMA Negotiated Extent of Play:

Field Team Control will be performed within or near the 10 mile EPZ using the DEP Radiological Rapid Response Vehicle (R3V). Field Team control is expected to initially be out of sequence with the plume timeline. During the exercise the field teams will be directed to take measurements in locations to provide information sufficient to characterize the plume and impacts. In addition to field team measurements, remote detectors will be located by the field teams near the expected plume pathway, these detectors will automatically transmit data to the R3V. These detectors will be used to keep field team dose ALARA. A FEMA Evaluator will be located at the R3V location, arriving at the same time as the Field Teams, expected to be at 1600 on June 24, 2008.

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, I. 9).

EXTENT OF PLAY

Field teams should demonstrate the capability to report measurements and field data pertaining to the measurement of airborne radioiodine and particulates and ambient radiation to the field team coordinator, 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. All 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 FRERP, and other resources (for example, compacts, utility, nuclear insurers, etc), if available. Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

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

PEMA Negotiated Extent of Play:

Measurements will be made by Department of Environmental Protection (DEP), Bureau of Radiation Protection (BRP), in accordance with the BRP Standard Implementing Procedures (IPs). Two mobile monitoring teams from BRP DEP South Western Regional Office will demonstrate ambient radiation monitoring and radioiodine and particulate sampling. Field teams will be equipped with appropriate dosimetry and KI. Both teams will be evaluated by FEMA. Each team will be directed to monitoring locations and perform actual radiation measurements at each location. Measurements may consist of truck installed radiation monitor or hand-held radiation instruments. - An actual air sample will be taken at the first location that meets the requirements for taking an air sample (1 mR/hr) as directed.

Teams will then take additional simulated air samples, as directed, at additional locations, if conditions are appropriate for radioiodine sampling and relay information to the Radiological Rapid Response Vehicle (R3V). In place of silver zeolite cartridges, charcoal cartridges will be used for the exercise. All measurements will be forwarded to theR3V immediately upon obtaining data. Evaluators will meet the field teams at ***the DEP South Western Regional Office at 1:30 p.m., June 24, 2008.***

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

This sub-element will not be evaluated during this exercise.

Sub-element 4.c - Laboratory Operations

This sub-element will not be evaluated during this exercise.

EVALUATION AREA 5
Emergency Notification and Public Information

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

INTENT

This sub-element derives from NUREG-0654, 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."

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 FEMA REP guidance. (10 CFR Part 50, Appendix E.IV.D and NUREG-0654, E.5, 6, 7)

EXTENT OF PLAY

Responsible Offsite Response Organizations (ORO) 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.

Offsite Response Organizations (OROs) with route alerting as the primary method of alerting and notifying the public should demonstrate the capability to accomplish the primary route alerting, following the decision to activate the alert and notification system, in a timely manner (will not be subject to specific time requirements) in accordance with the ORO's plan and/or procedures. At least one route needs to be demonstrated and evaluated. The selected route(s) 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 (that is, 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. 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.

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

PEMA Negotiated Extent of Play:

*The Commonwealth of Pennsylvania has implemented a Statewide EAS Control system in cooperation with the Pennsylvania Association of Broadcasters per the State Emergency Communications Committee and Pennsylvania Emergency Alert System State EAS Plan (April 1, 2004). The State EOC (PEMA) is the initiating point for the activation of the EAS. Risk counties have the control equipment for activation of sirens. Coordination will occur between the State EOC and the affected counties with respect to the Alert and Notification System (ANS) process. Sirens will be coordinated and the sounding simulated at the appropriate time with the simulated activation of EAS taking place approximately 3 minutes following the simulated activation of the sirens. Regular broadcasting will not be interrupted on the EAS Stations. All subsequent actions to broadcast stations will be simulated. Broadcast of the message(s) or test message(s) is **NOT** required and **NOT** requested. Counties may elect to provide county specific EAS messages to their EAS stations.*

*Following the decision to activate the alert and notification system, in accordance with the ORO's plan and/or procedures, ANS activation should be accomplished in a timely manner for primary alerting/notification. This action will **NOT** be subject to specific time requirements.*

All actions to broadcast stations will be simulated. Systems that use automatic sending technology may be demonstrated by explanation during an interview.

Each evaluated municipality per risk county will demonstrate route alerting of the hearing impaired residents within their jurisdiction by interview at the EOC.

Criterion 5.a.2: [RESERVED]

Criterion 5.a.3: Activities associated with FEMA approved exception areas (where applicable) are completed within 45 minutes following the initial decision by authorized offsite emergency officials to notify the public of an emergency situation. Backup alert and notification of the public is completed within 45 minutes following the detection by the ORO of a failure of the primary alert and notification system. (NUREG-0654, E. 6, Appendix 3.B.2.c)

EXTENT OF PLAY

Offsite Response Organizations (ORO) 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 route(s) 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 (that is, 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 only needs to 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 (that is, 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.

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

PEMA Negotiated Extent of Play:

Back-up alert notification of the public due to a simulated siren failure will be demonstrated. (Refer to Attachment A, Section I. 4.) PEMA liaison will give an inject to the risk county

coordinator that a particular siren has failed in the municipalities scheduled to demonstrate back-up route alerting. This siren failure will then be communicated to the appropriate municipalities so they can demonstrate one back-up route alert run. Pennsylvania does not have any "exception areas."

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

INTENT

This sub-element derives from NUREG-0654, which provides that Offsite Response Organizations (ORO) should have the capability to disseminate to the public appropriate emergency information and instructions, including any recommended protective actions. In addition, NUREG-0654 provides that OROs should ensure that the capability exists for providing information to the media. This includes the availability of a physical location for use by the media during an emergency. NUREG-0654 also provides that a system should be available for dealing with rumors. This system will hereafter be known as the public inquiry hotline.

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

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 ORO 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 (for example, 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. The ORO should also be prepared to disclose and explain the Emergency Classification Level (ECL) of the incident. At a minimum, this information must be included in media briefings and/or media releases. 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.

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

PEMA Negotiated Extent of Play:

*Subsequent emergency information and instructions should be provided to the public and the media in a timely manner. This will **NOT** be subject to specific time requirements. Any subsequent information/news statements required by the ORO Plans will be made by the individual counties to ONE specific electronic news media/information outlet serving the county. One media briefing will be demonstrated in each risk county.*

Risk and support counties will receive and handle "public inquiry" messages via their individual "public inquiry" processes (In compliance with NIMS terminology, rumor control is now considered to be "public inquiry"). Counties will receive approximately ten (10) public inquiry calls from the state exercise cell assigned this responsibility. Counties will be expected to receive and log the calls, identify any trends and take appropriate actions.

EVALUATION AREA 6
Support Operation/Facilities

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

INTENT

This sub-element derives from NUREG-0654, which provides that Offsite Response Organizations (ORO) 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.

Criterion 6.a.1: The reception center/emergency worker facility has appropriate space, adequate resources, and trained personnel to provide monitoring, decontamination, and registration of evacuees and/or emergency workers. (NUREG-0654, J.10.h; J.12; K.5.a)

EXTENT OF PLAY

Radiological monitoring, decontamination, and registration facilities for evacuees/ emergency workers should be set up and demonstrated as they would be in an actual emergency or as indicated in the extent of play agreement. This would include adequate space for evacuees' vehicles. Expected demonstration should include 1/3 of the monitoring teams/portal monitors required to monitor 20% of the population allocated to the facility within 12 hours. Before using monitoring instrument(s), the monitor(s) should demonstrate the process of checking the instrument(s) for proper operation.

Staff responsible for the radiological monitoring of evacuees should demonstrate the capability to attain and sustain a monitoring productivity rate per hour needed to monitor the 20% emergency planning zone (EPZ) population planning base within about 12 hours. This 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 monitoring procedure. A minimum of six individuals per monitoring station should be monitored, using equipment and procedures specified in the plan and/or procedures, to allow demonstration of monitoring, decontamination, and registration capabilities. The monitoring sequences for the first six simulated evacuees per monitoring team will be timed by the evaluators in order to determine whether the twelve-hour requirement can be meet. Monitoring of emergency workers does not have to meet the twelve-hour requirement. However, appropriate monitoring procedures should be demonstrated for a minimum of two emergency workers.

Decontamination of evacuees/emergency workers may be simulated and conducted by interview. The availability of provisions for separately showering should be demonstrated or explained. The staff should demonstrate provisions for limiting the spread of contamination. Provisions could include floor coverings, signs and appropriate means (for example, partitions,

roped-off areas) to separate clean from potentially contaminated areas. Provisions should also exist to separate contaminated and uncontaminated individuals, provide changes of clothing for individuals whose clothing is contaminated, and store contaminated clothing and personal belongings to prevent further contamination of evacuees or facilities. In addition, for any individual found to be contaminated, procedures should be discussed concerning the handling of potential contamination of vehicles and personal belongings.

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

The capability to register individuals upon completion of the monitoring and decontamination activities should be demonstrated. The registration activities demonstrated should include the establishment of a registration record for each individual, consisting of the individual's name, address, results of monitoring, and time of decontamination, if any, or as otherwise designated in the plan. Audio recorders, camcorders, or written records are all acceptable means for registration.

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

PEMA Negotiated Extent of Play:

Radiological monitoring demonstration sites should possess a roster of the monitoring personnel required to process 20% of the population allocated to the facility within a 12 hour period.

Water from decontamination activities may go directly to a storm drain or other sewer or drain system or area normally designated for wastewater that has been used for bathing or washing of vehicles and or equipment.

***At each reception center**, a minimum of three volunteer evacuees will be processed, briefed, issued the appropriate strip map or directions, and instructed to proceed to a mass care center designated for demonstration of monitoring, decontamination, and registration. A sample of the appropriate strip maps or directions will be made available for the demonstration. Co-located facilities do not require strip maps or written directions.*

One mass care center and one mass care monitoring/decontamination center will be demonstrated per county during the out-of-sequence window. The counties will provide space at designated mass care centers for operation of monitoring/decontamination centers. Schematics of these monitoring /decontamination centers will be available to show the organization and layout within the facility and space management for monitoring and

decontamination. Procedures will be demonstrated to show the separation of contaminated and non-contaminated (clean) individuals to minimize cross contamination.

At the evacuee monitoring/decontamination center, *a minimum of six (6) volunteer evacuees will be monitored (or one volunteer evacuee may be monitored six times). Suitable radiological monitoring instruments will be issued to and demonstrated by the initial monitoring team(s). A monitoring team consists of one monitor and one recorder equipped with one survey instrument. Those individuals found to be free of "contamination", based upon scenario injects, will be directed to the mass care registration point for further processing.* ***Note:*** *Actual radiological sources will not be attached to or hidden upon the volunteer evacuees.*

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

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

Portal Monitor Use: *Risk and Support counties may, during this exercise, utilize portal monitors to monitor simulated evacuees and/or emergency workers. The monitoring / decontamination team requirements will be based on the portal monitor capabilities as applicable based on the procedure/guidelines, and the recommendations of the manufacturer.* ***Note:*** *PEMA Circular C2004-2 shall apply.*

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

Radiation readings / contamination data for the evacuees and vehicle will be provided by the controller as appropriate based upon information contained in the scenario package. Set-up of the facility will be performed the same as for an actual emergency with all route markings and contamination control measures in place including step-off pads. Long runs of plastic covered with paper will not be demonstrated, but the materials shall be available and explained. Positioning of a fire apparatus on-site may be simulated if otherwise required.

Sub-element 6.b – Monitoring and Decontamination of Emergency Worker Equipment

INTENT

This sub-element derives from NUREG-0654, which provides that Offsite Response Organizations (ORO) have the capability to implement radiological monitoring and decontamination of emergency worker equipment, including vehicles.

Criterion 6.b.1: The facility/ORO has adequate procedures and resources for the accomplishment of monitoring and decontamination of emergency worker equipment, including vehicles. (NUREG-0654, K.5.b)

EXTENT OF PLAY

The monitoring staff should demonstrate the capability to monitor equipment, including vehicles, for contamination in accordance with the Offsite Response Organizations (ORO) plans and procedures. Specific attention should be given to equipment, including vehicles, that was in contact with individuals found to be contaminated. The monitoring staff should demonstrate the capability to make decisions on the need for decontamination of equipment, including vehicles, based on guidance levels and procedures stated in the plan and/or procedures.

The area to be used for monitoring and decontamination should 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 should 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 should be demonstrated. Interior surfaces of vehicles that were in contact with individuals found to be contaminated should also be checked.

Decontamination capabilities, and provisions for vehicles and equipment that cannot be decontaminated, may be simulated and conducted by interview.

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

PEMA Negotiated Extent of Play:

Emergency worker station personnel will consist of a minimum of one monitor and one recorder and sufficient personnel to demonstrate monitoring of at least one vehicle. Schematics of these monitoring/decontamination stations will be available to show organization and space management. The evaluator will request that vehicle decontamination procedures be explained after the vehicle (with simulated contamination) has been monitored. One radiological survey meter, will be issued to each vehicle monitoring/decontamination team. One vehicle and/or piece of equipment will not be able to be decontaminated. Simulated radiation contamination data will be included in the scenario package, and injected by a controller. Set-up of the facility will be performed as closely as possible to that for an actual emergency with all route markings in place.

Decontamination capabilities, and provisions for vehicles and equipment that cannot be decontaminated, will be simulated and conducted by interview. Water will NOT be used.

Sub-element 6.c - Temporary Care of Evacuees

INTENT

This sub-element derives from NUREG-0654, which provides that Offsite Response Organizations (ORO) demonstrate the capability to establish relocation centers in host areas. The American Red Cross (ARC) normally provides congregate care in support of OROs under existing letters of agreement.

> **Criterion 6.c.1: Managers of congregate care facilities demonstrate that the centers have resources to provide services and accommodations consistent with American Red Cross planning guidelines. (Found in MASS CARE - Preparedness Operations, ARC 3031) Managers demonstrate the procedures to assure that evacuees have been monitored for contamination and have been decontaminated as appropriate before entering congregate care facilities. (NUREG-0654, J.10.h, J.12)**

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 objective, 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 (for example, cots, blankets, sundries, and large-scale food supplies) need not be physically available at the facility (facilities). However, availability of such items should be verified by providing the evaluator a list of sources with locations and estimates of quantities.

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

PEMA Negotiated Extent of Play:

All counties demonstrating the operation of mass care centers during the out-of-sequence window will provide floor plans of the mass care centers to show organization within the facility and space management during a real emergency. Mass care center locations are listed in the demonstration tables "Demonstration of Mass Care Centers (Attachment A, Section B.3)".

Personnel, at a minimum, will consist of one manager and one assistant for each mass care center opened during the out-of-sequence window. The responsible American Red Cross chapter will show the source and quantities, by job functional description, to be provided to mass care centers to support the 24-hour operation. The responsible Red Cross Chapter(s) will be visited, or telephonically contacted during business hours on May 14, 2008, by an exercise evaluator, or interviewed at the mass care center during the out-of-sequence evaluation to provide information regarding the 24-hour operation. Schematics of these mass care centers will be available, during the demonstration window, to show organization within the facility and space allocation for the registration and sheltering the evacuating public. Necessary signs, directional arrows and forms will be available and used to demonstrate registration, at a minimum, of three evacuees requiring emergency housing. Evacuees will be shown the location where they would be housed in an actual situation. Bedding, cots, food, etc. normally associated with mass care will not be moved to the site, but the sources of those items should be explained to FEMA evaluators. This out-of-sequence demonstration window will be from 7:00 PM – 9:30 PM on May 14, 2008.

American Red Cross Chapters and POCs are as follows:

(Allegheny and Washington Counties)
Southwest PA Chapter
225 Blvd. Of the Allies
Pittsburgh, PA 15230
POC: Rob Skertich
412-263-3100

(Butler County)
Butler County Area
312 Mercer St.
Butler, PA 16001
POC: Melissa Wilson
724-283-2810

(Beaver and Lawrence County)
133 Friendship Cir.
Beaver, PA 15009
POC: John Stubbs
724-775-9700

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

This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (ORO's) should have the capability to transport contaminated injured individuals to medical facilities with the capability to provide medical services.

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

EXTENT OF PLAY

Monitoring, decontamination, and contamination control efforts will not delay urgent medical care for the victim.

Offsite Response Organizations (ORO) should demonstrate the capability to transport contaminated injured individuals to medical facilities. An ambulance should be used for the response to the victim. However, to avoid taking an ambulance out of service for an extended time, any vehicle (e.g., car, truck, or van) may be utilized to transport the victim to the medical facility. Normal communications between the ambulance/dispatcher and the receiving medical facility should be demonstrated. If a substitute vehicle is used for transport to the medical facility, this communication must occur prior to releasing the ambulance from the drill. This communication would include reporting radiation-monitoring results, if available. Additionally, the ambulance crew should demonstrate, by interview, knowledge of where the ambulance and crew would be monitored and decontaminated, if required, or whom to contact for such information.

Monitoring of the victim may be performed prior to transport, done enroute, or deferred to the medical facility. Prior to using a monitoring instrument(s), the monitor(s) should demonstrate the process of checking the instrument(s) for proper operation. All monitoring activities should be completed, as they would be in an actual emergency. Appropriate contamination control measures should be demonstrated prior to and during transport and at the receiving medical facility.

The medical facility should demonstrate the capability to activate and set up a radiological emergency area for treatment. Equipment and supplies should be available for the treatment of contaminated injured individuals.

The medical facility should demonstrate the capability to make decisions on the need for decontamination of the individual, to follow appropriate decontamination procedures, and to maintain records of all survey measurements and samples taken. All procedures for the collection and analysis of samples and the decontamination of the individual should be demonstrated or described to the evaluator.

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

PEMA Negotiated Extent of Play:

This sub-element was evaluated at Ellwood City Hospital on December 12, 2007.

ATTACHMENT A

Beaver Valley Power Station 2008
Extent of Play Demonstration Tables

I. PLUME PHASE EXERCISE –

A. Activities – May 14, 2008

1. **Risk Public School Districts with schools located within the EPZ and those districts situated outside the EPZ, but with students living within the EPZ, will participate and be evaluated by the Department of Homeland Security. Each identified District Administration Office will be evaluated. When a school system is comprised of multiple buildings (High School, Middle School, Elementary School), the affected buildings (those with students from the EPZ) will be evaluated on a rotational basis to coincide with the six-year exercise cycle.**

   Time: Out of Sequence – 9:00 – 11:00 AM

County	School District	School
Beaver	Aliquippa	Aliquippa Elem
	Beaver Area	Beaver Area MS/HS
	Blackhawk	Patterson Primary
	Center Area	Center Area Junior HS
	Hopewell	Margaret Ross Elem
	Midland Borough	Neel Elem
	Monaca	Monaca Elem
	South Side Area	South Side Middle School
	Western Beaver	Western Beaver Jr/Sr HS
	New Brighton	See Note below
	Ambridge	See Note below

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

2. **County Emergency Operations Centers (EOCs)**
   Time: Per Scenario

	DEMONSTRATION FOR EOC MOBILIZATION FOR COUNTIES (Plume Phase Exercise)	
County	**Date**	**Time**
Beaver	June 24, 2008	TBD
Allegheny	June 24, 2008	TBD
Butler	June 24, 2008	TBD
Lawrence	June 24, 2008	TBD
Washington	June 24, 2008	TBD

3. Municipal Emergency Operations Centers (EOC)
Time: Per Scenario

	DEMONSTRATION FOR EOC MOBILIZATION FOR MUNICIPALITIES (Plume Phase Exercise)	
RISK COUNTY	**MUNICIPALITY**	**DATE**
Beaver	City of Aliquippa	June 24, 2008
	Beaver Borough	June 24, 2008
	Bridgewater/Fallston Borough*	June 24, 2008
	Brighton Township	June 24, 2008
	Center Township	June 24, 2008
	Chippewa Township	June 24, 2008
	Frankfort Springs/Hanover*	June 24, 2008
	Georgetown/Greene/Hookstown*	June 24, 2008
	Glasgow/Ohioville/S. Beaver*	June 24, 2008
	Hopewell Township	June 24, 2008
	Independence Township	June 24, 2008
	Industry Borough	June 24, 2008
	Midland Borough	June 24, 2008
	Monaca Borough	June 24, 2008
	Patterson Twp/Patterson Hts Boro*	June 24, 2008
	Potter Township	June 24, 2008
	Raccoon Township	June 24, 2008
	Shippingport Borough	June 24, 2008
	South Heights Borough	June 24, 2008
	Vanport Township	June 24, 2008

* Joint EOC

4. One back-up one route alerting demonstration by each risk municipality listed below. (During Scenario Exercise)

COUNTY	RISK MUNICIPALITY	DATE
Beaver	Beaver Borough	June 24, 2008
	Brighton Township	June 24, 2008
	Chippewa Township	June 24, 2008
	Hopewell Township	June 24, 2008
	Monaca Township	June 24, 2008
	Patterson Heights/Patterson Borough	June 24, 2008

5. Traffic and Access Control Points

a. The Pennsylvania State Police will brief at the PSP Beaver Barracks, 1400 Brighton Road, Beaver, PA 15009 Those attending the briefing will not actually deploy to the TCP/ACPs.

b. The PSP briefing will be performed out of sequence in a demonstration window of **1:00 p.m. to 3:00 p.m. on June 24, 2008.**

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

d. Municipal and county staffs will be prepared to brief the DHS evaluator on actions to be taken should there be an impediment to evacuation on a designated route. This will be demonstrated between 7:00 pm - 9:30 pm on June 24, 2008.

MUNICIPAL / REGIONAL POLICE FORCES	
COUNTY	**POLICE FORCE**
Beaver	Beaver Bridgewater/Fallston Center Monaca Patterson Heights/Patterson Raccoon Shippingport

B. May 14, 2008

1. **Reception Centers (Out of Sequence)**

	Demonstration of Reception Centers	
COUNTY	**DATE**	**TIME**
Allegheny	May 14, 2008	7:00 p.m. – 9:30 p.m.
Butler	May 14, 2008	7:00 p.m. – 9:30 p.m.
Lawrence	May 14, 2008	7:00 p.m. – 9:30 p.m.
Washington	May 14, 2008	7:00 p.m. – 9:30 p.m.

COUNTY	Reception Center Location
Allegheny	South Park Museum Building
Butler	Slippery Rock University
Lawrence	Mohawk Area High School
Washington	Washington County Fairgrounds

2. **Monitoring/Decontamination Centers (Out of Sequence)**

	Demonstration of Mon/Decon Centers	
COUNTY	**DATE**	**TIME**
Allegheny	May 14, 2008	7:00 p.m. – 9:30 p.m.
Butler	May 14, 2008	7:00 p.m. – 9:30 p.m.
Lawrence	May 14, 2008	7:00 p.m. – 9:30 p.m.
Washington	May 14, 2008	7:00 p.m. – 9:30 p.m.

COUNTY	Mon/Decon Center Locations
Allegheny	South Park Museum Building
Butler	Slippery Rock University
Lawrence	Mohawk High School
Washington	McGuffey High School

3. **Mass Care Centers (Out of Sequence)**

	Demonstration of Mass Care Centers	
COUNTY	**DATE**	**TIME**
Allegheny	May 14, 2008	7:00 p.m. – 9:30 p.m.
Butler	May 14, 2008	7:00 p.m. – 9:30 p.m.
Lawrence	May 14, 2008	7:00 p.m. – 9:30 p.m.
Washington	May 14, 2008	7:00 p.m. – 9:30 p.m.

COUNTY	Mass Care Center Locations
Allegheny	South Park High School

Butler	Slippery Rock University
Lawrence	Mohawk High School
Washington	McGuffey High School

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

Allegheny – reception, mon/decon (personnel and vehicle,) and mass care demonstrations will take place at South Park.

Butler - reception, mon/decon (personnel and vehicle,) and mass care demonstrations will take place at Slippery Rock.

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

Washington – reception and driving directions will be demonstrated at the Washington County Fairgrounds. Personnel and vehicle mon/decon and mass care will be demonstrated at McGuffey High School.

4. Emergency Worker Monitoring / Decontamination Stations (Out of Sequence)

Beaver	Beaver Falls FD	May 14, 2008
Beaver	South Beaver FD	May 14, 2008

ATTACHMENT B

PREVIOUS ISSUES

Number	Facility Evaluated
03-06-6.a.1-A-03	Butler Mon/Decon - team not familiar with procedures
03-06-3.b.1-P-01	Center Township - no log record for KI ingestion
BVX92-27R (1.c.1)	Armstrong County - 16 year old ingestion issue that will not go away. Will be re-demonstrated in 14 years
BVX92-28R (1.b.1)	Greene County - 16 year old ingestion issue that will not go away. Will be re-demonstrated in 14 years

BVPS 2008 REP EXERCISE – WV EXTENT OF PLAY AGREEMENT

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

2. **Offsite Response Functions:**

State: West Virginia Emergency Operations Center

- Direction & Control
- Accident Assessment
- Public Information
- Communications

Hancock County Emergency Operations Center

- Accident Assessment

Beaver Valley Power Station Emergency Response Facility

- Accident Assessment

Beaver Valley Power Station Joint Public Information Center

- Public Information

County: Hancock County Emergency Operations Center

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

Field Play: (See 5. Demonstration Windows)

3. **Controllers:** First Energy Nuclear Operating Company (FENOC) will provide controller at the Hancock County EOC and at Hancock County field locations. Controllers will not take an active part in the proceedings, but will interact with staff members to the extent necessary to fulfill their observer responsibilities or to provide data when requested. Coaching of players by Controllers is not permitted except to provide training to participants awaiting a re-demonstration.

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

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

- The State & Hancock County EOC Operations will be conducted on June 24, 2008.
- The State will be represented at the BVPS Emergency Response Facility during the June 24, 2008 exercise.
- The State will be represented at the BVPS Joint Public Information Center (JPIC) during the June 24, 2008 exercise.
- Out of Sequence Demonstrations will be run independently of each other.
- Out of Sequence Demonstrations will be managed by the Lead Controller at each field location.
- MS-1 Hospital Exercise was conducted on April 24, 2007 and Federal Evaluated at the Weirton Medical Center.
- School demonstration: Will be conducted on June 24, 2008 at 0900 - 1100 hours at Oak Glen High School in New Cumberland, WV. Bus Drivers will also be evaluated at that time.
- Reception Center/Mass Care Center; Monitoring/Decontamination Center June 24, 2008 at Weir High Complex at 1900 - 2100 Hours.
- Emergency Worker Monitoring and Decontamination: May 14, 2008 at New Cumberland Fire Dept. at 1900 - 2100 Hours.
- Traffic Control / Access Control: May 14, 2008 at 1900 - 2100 hours at New Cumberland Fire Dept.
- Route Alerting: May 14, 2008 at Oakland VFD at 1900 - 2100 hours.
- Field Monitoring Team: June 24, 2008 at 0900 – 1100 hours. Team will form at the Hancock County Court House.

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

6. **Termination:** The Lead Controller in the Hancock County EOC will coordinate the Exercise Termination with the West Virginia EOC, the BVPS EOF, and the EOCs in Beaver and Columbiana County for the June 24, 2008 Exercise.

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

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

8. **Re-demonstrations:** During the out-of-sequence demonstrations on during the week of May 14, 2008, or the Plume Exercise on June 24, 2008, any activity that is not satisfactorily demonstrated may be re-demonstrated by the participants during the exercise provided it does not negatively interfere with the exercise. Refresher training can be provided by the players, observers, and/or controllers. Re-demonstrations will be negotiated between the players, observers, controllers, evaluators and RAC Chair, or designee. It is permissible to extend the evaluation time to accommodate the re-demonstration. Activities corrected from a re-demonstration will be so noted.

EVALUATION AREA 1 - Emergency Operations Management

Sub-element 1.a – Mobilization

INTENT

This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (ORO) should have the capability to alert, notify, and mobilize emergency personnel and to activate and staff emergency facilities.

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

EXTENT OF PLAY

State:

- Demonstrate the capability to receive notification of an emergency situation from the licensee. Contact, alert, and mobilize key emergency personnel in a timely manner.
- Demonstrate the activation of facilities for immediate use by mobilized personnel when they arrive to begin emergency operations.
- Activation of facilities will not start until an Alert is declared.
- Activation of facilities should be completed in accordance with the plan and/or procedures.
- Pre-positioning is permitted for all field locations and any out-of–sequence demonstrations. State personnel assigned to field activities (i.e. County EOC, BVPS EOF, BVPS JPIC) will be permitted to pre-position.
- EOC Twenty-four (24) Hour Staffing will be demonstrated by roster.

County:

- Demonstrate the capability to receive notification of an emergency situation from the licensee. Contact, alert, and mobilize key emergency personnel in a timely manner.

- 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.

- Activation of facilities will not start until an Alert is declared.

- Pre-positioning is permitted for all field locations and any out-of-sequence demonstrations.

- EOC Twenty-four (24) Hour Staffing will be demonstrated by roster.

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

EVALUATION AREA 1 - Emergency Operations Management

Sub-element 1.b – Facilities

INTENT

This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (ORO) have facilities to support the emergency response.

Criterion 1.b.1: Facilities are sufficient to support the emergency response. (NUREG-0654, H.3)

EXTENT OF PLAY

State:

- All facilities identified in the method of operations have been evaluated during previous exercises in order to establish a baseline. Facilities will not be evaluated.

County:

- All facilities identified in the method of operations have been evaluated during previous exercises in order to establish a baseline. Facilities will not be evaluated.

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

EVALUATION AREA 1 - Emergency Operations Management

Sub-element 1.c - Direction and Control

INTENT

This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (ORO) have the capability to control their overall response to an emergency.

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

EXTENT OF PLAY

State:

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

County:

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

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

EVALUATION AREA 1 - Emergency Operations Management

Sub-element 1.d – Communications Equipment

INTENT

This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (ORO) 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.

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, F.1, 2)

EXTENT OF PLAY

State:

- EOC will demonstrate telephone and at least one radio communications system.
- Field Teams will demonstrate the capability to communicate from the field locations, independent from commercial hard line telephone.
- Demonstrate the capability to manage the communication systems and ensure that all message traffic is handled without delays that might disrupt the conduct of emergency operations.

County:

- EOC will demonstrate telephone and at least one radio communications system.
- Demonstrate the capability to manage the communication systems and ensure that all message traffic is handled without delays that might disrupt the conduct of emergency operations.

- Out-of-sequence demonstrations will have communications available and demonstrated (i.e. radio / communications check).

- Communications associated with medical support facilities were demonstrated during the April 24, 2007, MS-1 Federal Evaluated Exercise.

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

EVALUATION AREA 1 - Emergency Operations Management

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

INTENT

This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (ORO) have emergency equipment and supplies adequate to support the emergency response.

Criterion 1.e.1: Equipment, maps, displays, dosimetry, potassium iodide (KI), and other supplies are sufficient to support emergency operations. (NUREG-0654, H.7, 10; J.10.a, b, e, J.11; K.3.a)

EXTENT OF PLAY

State:

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

County:

- The dosimetry is exchanged annually and documentation will be verified during the exercise.
- The County will demonstrate the capability to maintain inventories of KI sufficient for use by emergency workers
- Adequate quantities of dosimetry and KI are available at the County EOC and will be confirmed by physical inspection. Available supplies of KI will be within the expiration date indicated on KI bottles or blister packs.
- Maps and displays will be utilized in the EOC.

- Hancock County does not pre-distribute dosimetry. Dosimetry will not be distributed during the exercise.

- Dosimetry "Training Kits" will be available at the field locations to demonstrate the use of dosimetry.

- A Law Enforcement Officer, in the County EOC, will discuss the process to establish Traffic and Access Control Points during the EOC play on June 24, 2008.

- The responsibility of the officer at a Traffic and Access Control Point will be explained through the interview process during Out-of-Sequence play on May 14, 2008 at 1900 – 2100 hours at the New Cumberland Fire Department.

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

EVALUATION AREA 2 - Protective Action Decision-Making

Sub-element 2.a - Emergency Worker Exposure Control

INTENT

This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (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.

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

EXTENT OF PLAY

State:

- **As appropriate, demonstrate the capability to make decisions on the distribution and administration of KI as a protective measure.**

- A decision not to take KI is an acceptable decision.

County:

- **Demonstrate the capability to make decisions concerning the authorization to exceed predetermined administrative exposure limits. This will be done by interview.**

- **Demonstrate through interview with County Director or his designee, how KI would be distributed to EPZ Emergency Workers.**

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

INTENT

This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (ORO) 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 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.

<u>Criterion 2.b.1</u>: Appropriate protective action recommendations are based on available information on plant conditions, field monitoring data, and licensee and ORO dose projections, as well as knowledge of onsite and offsite environmental conditions. (NUREG-0654, I.8, 10 and Supplement 3)

EXTENT OF PLAY

State:

- Protective Action Recommendations will be developed in accordance with Plans and/or Procedures.
- As data becomes available, accident assessment will be performed and PARs developed in accordance with Plans and/or Procedures.

County:

- N/A

<u>Criterion 2.b.2</u>: A decision-making process involving consideration of appropriate factors and necessary coordination is used to make

protective action decisions (PAD) for the general public (including the recommendation for the use of KI, if ORO policy). (NUREG-0654, J.9, 10.f, m)

EXTENT OF PLAY

State:

- The State should have the capability to make both initial and subsequent protective actions.
- Demonstrate the capability to make initial protective actions in a timely manner.
- The dose assessment personnel may provide additional PARs based on the subsequent dose projections, field monitoring data, or information on plant conditions. The decision-makers should demonstrate the capability to change protective actions as appropriate based on these projections.
- The PAR should be coordinated between the 3 States and the three counties. A coordinated PAR does not necessarily mean the same PAR.
- At least one PAR will be demonstrated.

County:

- A least one PAD based on the recommendations coordinated between the states and counties will be demonstrated.

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

EVALUATION AREA 2 - Protective Action Decision-Making

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

INTENT

This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (ORO) 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.

Criterion 2.c.1: Protective action decisions are made, as appropriate, for special population groups. (NUREG-0654, J.9, J.10.d, e)

EXTENT OF PLAY

State:

- N/A

County:

- Schools and bus drivers will be demonstrated out of sequence on June 24, 2008 at 0900 - 1100 hours.
- Bus will not run a route to the host school.
- Special populations will be demonstrated through interview with appropriate EOC staff during the June 24, 2008 exercise.

All decision-making activities associated with protective actions, including consideration of available resources, for special population groups must be based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.

EVALUATION AREA 2 - Protective Action Decision-Making

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

EXTENT OF PLAY

State:

- *This element will not be demonstrated during this exercise.*

County:

- *This element will not be demonstrated during this exercise.*

Sub-element 2.e. – Radiological Assessment and Decision-Making Concerning Relocation, Re-entry, and Return

State:

- *This element will not be demonstrated during this exercise.*

County:

- *This element will not be demonstrated during this exercise.*

EVALUATION AREA 3 - Protective Action Implementation

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

INTENT

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

<u>Criterion 3.a.1</u>: The OROs issue appropriate dosimetry 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. (NUREG-0654, K.3.a, b)

EXTENT OF PLAY

State:

- N/A

County:

- Emergency Workers who are assigned dosimetry will demonstrate the procedures to monitor and record dosimetry readings. The workers may be interviewed by the evaluator to determine their knowledge of radiological exposure control, radiation exposure limits, turn back values and whom to contact in the event authorization is needed to exceed their limits.

- OROs should 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 scenario events do not require emergency workers to seek authorizations for additional exposure, evaluators should interview at

least two emergency workers, to determine their knowledge of whom to contact in the event authorization is needed.

- Emergency workers may use any available resources (e.g., written procedures and/or co-workers) in providing responses.

- Dosimetry "Training Kits" will be available at the field locations to demonstrate the use of dosimetry. A "Training Kit" is designed to have sufficient supplies to demonstrate Radiological Exposure Control. The kit will not necessarily have sufficient supplies for all the emergency workers at the facility. Area monitoring kits may be utilized.

- The supply of DRDs, PRDs and KI will be available in the Hancock County EOC.

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

EVALUATION AREA 3 - Protective Action Implementation

Sub-element 3.b – Implementation of KI Decision

INTENT

This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (ORO) 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 and is reflected in ORO's plans and procedures. Provisions should include the availability of adequate quantities, storage, and means of the distribution of radioprotective drugs.

<u>Criterion 3.b.1</u>: KI and appropriate instructions are available should a decision to recommend use of KI be made. Appropriate record keeping of the administration of KI for emergency workers and institutionalized individuals (not the general public) is maintained. (NUREG-0654, J. 10. e)

EXTENT OF PLAY

State:

- The State should demonstrate the capability to formulate and disseminate appropriate instructions on the use of KI for those advised to take it.

- A decision not to take KI is an acceptable decision.

County:

- The County will demonstrate the capability to make KI available to emergency workers. The County will demonstrate the capability to accomplish distribution of KI consistent with decisions made. Organizations should 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 were instructed to ingest KI. The ingestion of KI recommended by the designated health official is voluntary. For evaluation purposes, the actual ingestion of KI is not necessary.

- Emergency workers should demonstrate the basic knowledge of procedures for the use of KI whether or not the scenario drives the use of KI. This can be accomplished by an interview with the evaluator.

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

EVALUATION AREA 3 - Protective Action Implementation

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

INTENT

This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (ORO) 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.

Criterion 3.c.1: Protective action decisions are implemented for special populations other than schools within areas subject to protective actions. (NUREG-0654, J.10.c, d, g)

EXTENT OF PLAY

State:

- N/A

County:

- Demonstrate the capability to alert and notify special populations (hospitals, nursing homes, correctional facilities, mobility-impaired individuals, transportation dependent, State licensed day care centers, etc.).
- Demonstrate the capability to provide for the needs of special populations in accordance with plans and procedures.
- Contact with special populations and reception facilities will be simulated.
- Telephone calls will not be made
- One transportation provider will be contacted; all other calls will be simulated.
- All simulated contacts should be logged.

- Route Alerting will be conducted Out-of-Sequence on May 14, 2008 at Oakland VFD at 1900 - 2100 hours.

- Notification of special needs people will be simulated by the Route Alerting Fire Department or notification from EOC staff.

- Notification of special populations will be procedurally explained.

Criterion 3.c.2: OROs/School officials decide upon and implement protective actions for schools. (NUREG-0654, J.10.c, d, g)

EXTENT OF PLAY

State:

- N/A

County:

- Demonstrate the capability to alert and notify the Hancock County School District of emergency conditions that are expected to or may necessitate protective actions for students.

- Contact with the public school district will be demonstrated during the out-of-sequence school play on June 24, 2008 at 0900 – 1100 hours.

- The Hancock County OEM and/or officials of the Hancock County School District will demonstrate the capability to make prompt decisions on protective actions for students.

- School Officials will demonstrate the decision making process for protective actions.

- One School in the Hancock County School District will participate during the Out-of-Sequence Demonstration on June 24, 2008 at 0900 – 1100 hours.

- Transportation of school children, if necessary, will be simulated.

- One Bus Driver will be available, at the participating school, for an interview between 0900 – 1100 hours on June 24, 2008

- The bus will not run the route to the Host School, but will explain the procedure.

- The implementation of canceling the school day, dismissing early, or sheltering will be simulated by describing to evaluators the procedures that would be followed. If evacuation is the implemented protective action, all activities to coordinate and complete the evacuation of students to the host school will be accomplished through an interview process.

- Communications will be verified by the Bus Driver by interview.

- Officials of the school will demonstrate the capability to develop and provide timely information to the HCEOC for use in messages to parents, the general public, and the media on the status of protective actions for schools.

- A controller will be at the school location to inject scenario.

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

EVALUATION AREA 3 - Protective Action Implementation

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

INTENT

This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (ORO) 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.

Criterion 3.d.1: Appropriate traffic and access control is established. Accurate instructions are provided to traffic and access control personnel. (NUREG-0654, J.10.g, j)

EXTENT OF PLAY

State:

- N/A

County:

- During the June 24, 2008 exercise, HCEOC will demonstrate the capability to select, establish, and staff appropriate traffic and access control points, consistent with protective actions.

- Staffing of Traffic and Access Control Points will be simulated.

- The capability to provide instructions to traffic and access control staff will be demonstrated through an interview with the Law Enforcement Officer in the HCEOC during the June 24, 2008 exercise.

- The HCEOC will demonstrate the ability to control access to rail, water and air traffic, under its control by interview.

- Traffic Control / Access Control Points will be demonstrated Out-of-Sequence on May 14, 2008 at 1900 - 2100, by interview at the New Cumberland Fire Department. Communications check will be conducted following the interview.

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

EXTENT OF PLAY

State:

- N/A

County:

- The HCEOC will demonstrate the capability by interview to identify and take appropriate actions concerning impediments to evacuation.
- Actual dispatch of resources will be simulated to deal with impediments and will be explained during the interview.

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

EVALUATION AREA 3 - Protective Action Implementation

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

EXTNET OF PLAY

State:

- *This element will not be demonstrated during this exercise.*

County:

- *This element will not be demonstrated during this exercise.*

Sub-element 3.f. – Implementation of Relocation, Re-entry, and Return Decisions

EXTNET OF PLAY

State:

- *This element will not be demonstrated during this exercise.*

County:

- *This element will not be demonstrated during this exercise.*

EVALUATION AREA 4 - Field Measurement And Analysis

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

INTENT

This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (ORO) 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 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.

<u>Criterion 4.a.1</u>: The field teams are equipped to perform field measurements of direct radiation exposure (cloud and ground shine) and to sample airborne radioiodine and particulates. (NUREG-0654, H.10; I.7, 8, 9)

EXTENT OF PLAY

State:

- Field teams will be equipped with instrumentation and supplies necessary to accomplish their mission as identified in the plan and/or procedures.
- One Field Team will be utilized.
- The Field Team will deploy from HCEOC.
- A minimum of six (6)-sampling locations will be demonstrated. Field Team Equipment will be demonstrated at three (3) sample locations. Equipment use will be simulated at the other three (3) locations.

- Transfer of samples to courier for transport to Ohio lab will be simulated.

- In-route readings will be taken.

- The Field Team will be demonstrated Out-of-Sequence on June 24, 2008 at 0900 - 1100 hours.

- Field data will be provided to the field team by controller injects.

County:

- N/A

<u>Criterion 4.a.2</u>: Field teams are managed to obtain sufficient information to help characterize the release, define the edge of the plume and to control radiation exposure. (NUREG-0654, H.12; I.8; 11; J.10.a)

EXTENT OF PLAY

State:

- Responsible Offsite Response Organizations (ORO) will demonstrate the capability to brief teams on predicted plume location and direction, travel speed, and exposure control procedures before deployment.

- The State will simulate contact of the FEMA III RRCC.

- Radiological data will be provided to the field team by the controller.

County:

- N/A

<u>Criterion 4.a.3</u>: 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, I. 9)

EXTENT OF PLAY

State:

- Field teams will demonstrate the capability to report measurements and field data pertaining to the measurement of airborne radioiodine and particulates and ambient radiation to the field team coordinator.
- Charcoal filters will be utilized instead of Silver Xeolite.
- Simulation of sharing of field data with Ohio and Pennsylvania will be demonstrated in a timely manner.
- Labs will not be demonstrated in this exercise.
- The request for Federal resources will be simulated by the WVEOC.
- A controller will provide Field Team readings.

County:

- N/A

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

EVALUATION AREA 4 - Field Measurement And Analysis

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

EXTNET OF PLAY

State:

- *This element will not be demonstrated during this exercise.*

County:

- *This element will not be demonstrated during this exercise.*

Sub-element 4.c – Laboratory Operations

EXTNET OF PLAY

State:

- *This element will not be demonstrated during this exercise. The WV State Plan identifies the State of Ohio's laboratories as the primary laboratories used for all sample analysis.*

County:

- *N/A*

EVALUATION AREA 5 - Emergency Notification and Public Information

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

INTENT

This sub-element is derived from NUREG-0654, 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."

<u>Criterion 5.a.1</u>: 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 FEMA REP guidance. (10 CFR Part 50, Appendix E.IV.D and NUREG-0654, E.5, 6, 7)

EXTENT OF PLAY

State:

- N/A

County:

- The County will demonstrate the capability to sequentially provide an alert signal followed by an initial instructional message to populated areas (permanent resident and transient) throughout the 10-mile plume pathway EPZ. Following the decision to activate the alert and notification system, in accordance with the County 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.

- Siren activation will be explained. Sirens will not be sounded.

- 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 will not be

demonstrated. The alert signal activation will be simulated. The procedures will be demonstrated up to the point of actual activation.

- In Hancock County the EAS Station is activated through the National Weather Service.

- For Exercise purposes the NWS will be contacted, EAS message provided, but the EAS Radio Station will not be activated.

- The capability of the primary notification system to broadcast an instructional message on a 24-hour basis should be verified during an interview with the HCOEM Director or designee.

Criterion 5.a.2: [RESERVED]

Criterion 5.a.3: Activities associated with FEMA approved exception areas (where applicable) are completed within 45 minutes following the initial decision by authorized offsite emergency officials to notify the public of an emergency situation. Backup alert and notification of the public is completed within 45 minutes following the detection by the ORO of a failure of the primary alert and notification system. (NUREG-0654, E. 6, Appendix 3.B.2.c)

EXTENT OF PLAY

State:

- N/A

County:

- Backup Route Alerting will be demonstrated from 1900 - 2100 hours on May 14, 2008 at Oakland Volunteer Fire Department.

- One route will be actually run and alert and notification activities along the route will be simulated (that is, the message that would actually be used is read for the evaluator, but not actually broadcast).

- Actual testing of the mobile public address system will be conducted at the Fire Station.

EVALUATION AREA 5 - Emergency Notification and Public Information

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

INTENT

This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (ORO) should have the capability to disseminate to the public appropriate emergency information and instructions, including any recommended protective actions. In addition, NUREG-0654 provides that OROs should ensure that the capability exists for providing information to the media. This includes the availability of a physical location for use by the media during an emergency. NUREG-0654 also provides that a system should be available for dealing with rumors. This system will hereafter be known as the public inquiry hotline.

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

EXTENT OF PLAY

State:

- The State will ensure that emergency information and instructions are consistent with protective action decisions made by appropriate officials. The State should be prepared to disclose and explain the Emergency Classification Level (ECL) of the incident.

- Public inquiries will be demonstrated at the EOC.

- Trends in rumors will be identified, if applicable.

- Subsequent emergency information and instructions will be provided to the public and the media through the Joint Public Information Center.

- One News Briefing will be conducted at the EOC.

County:

- The County will ensure that emergency information and instructions are consistent with protective action decisions made by appropriate officials. The County should be prepared to disclose and explain the Emergency Classification Level (ECL) of the incident.

- Public inquiries will be demonstrated at the EOC.
- Trends in rumors will be identified, if applicable.
- Subsequent emergency information and instructions will be provided to the public and the media through the state representative at the Joint Public Information Center.
- One News Briefing will be conducted at the EOC.

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

EVALUATION AREA 6 - Support Operation/Facilities

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

INTENT

This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (ORO) 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.

Criterion 6.a.1: The reception center/emergency worker facility has appropriate space, adequate resources, and trained personnel to provide monitoring, decontamination, and registration of evacuees and/or emergency workers. (NUREG-0654, J.10.h; J.12; K.5.a)

EXTENT OF PLAY

State:

- N/A

County:

- Reception/ Mass Care Center, Monitoring/ Decontamination Center will be conducted from 1900 - 2100 hours on June 24, 2008 at the Weir High School Complex.
- Decontamination of evacuees/emergency workers may be simulated and conducted by interview.
- The availability of provisions for separately showering should be demonstrated or explained.
- The staff should demonstrate provisions for limiting the spread of contamination.
- Provisions should also exist to separate contaminated and uncontaminated individuals.
- Change of clothing for individuals whose clothing is contaminated will be simulated.

- Storage of contaminated clothing and personal belongings to prevent further contamination of evacuees or facilities will be explained.

- Procedures should be discussed concerning the handling of potential contamination of vehicles and personal belongings of any individual found to be contaminated.

- Monitoring personnel should explain the use of action levels for determining the need for decontamination.

- Monitoring personnel should explain the procedures for referring evacuees who cannot be adequately decontaminated for assessment and follow up.

- Contamination of the individual will be determined by controller inject and not simulated with any low-level radiation source.

- The capability to register individuals was demonstrated during the 2006 Federal Evaluated Exercise, and will not be demonstrated during this exercise.

- The Emergency Worker Decontamination Center will be conducted from 1900 – 2100 hours on May 14, 2008 at the New Cumberland Fire Department.

- One monitoring station will be established at each location.

- One decontamination area will be established at each location.

- A total of six (6) people will be monitored at the Monitoring and Decontamination area. At least one (1) will be contaminated.

- Decontamination of personnel/equipment/vehicles will be explained. Actual decontamination will be simulated.

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

EVALUATION AREA 6 - Support Operation/Facilities

Sub-element 6.b – Monitoring and Decontamination of Emergency Worker Equipment

INTENT

This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (ORO) have the capability to implement radiological monitoring and decontamination of emergency worker equipment, including vehicles.

Criterion 6.b.1: The facility/ORO has adequate procedures and resources for the accomplishment of monitoring and decontamination of emergency worker equipment, including vehicles. (NUREG-0654, K.5.b)

EXTENT OF PLAY

State:

- N/A

County:

- The Emergency Worker Decontamination Center will be conducted from 1900 - 2100 hours on May 14, 2008 at the New Cumberland Fire Department.

- A total of six (6) people will be monitored at the Emergency Worker Decontamination Center. At least one (1) will be contaminated.

- One Emergency Worker will be monitored for contamination. Discussions on the need for decontamination will be made based on Controller injected radiation levels.

- Contamination control and record-keeping procedures will be demonstrated.

- Decontamination efforts will be procedurally explained, but actual decontamination will be simulated.

- The proper sequence for monitoring/decontamination efforts and the decision to refer individuals who cannot be decontaminated to medical facilities will be demonstrated via inquiries.

- One vehicle will be monitored and decisions regarding the need for decontamination will be made as radiation levels are presented via Controller injects.

- Record-keeping procedures will be demonstrated.

- No vehicles will be washed, but decontamination procedures will be explained.

- Decontamination of personnel/equipment/vehicles will be explained. Actual decontamination will be simulated.

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

EVALUATION AREA 6 - Support Operation/Facilities

Sub-element 6.c - Temporary Care of Evacuees

INTENT

This sub-element is derived from NUREG-0654, which provides that Offsite Response Organizations (ORO) demonstrate the capability to establish relocation centers in host areas. Congregate care is normally provided in support of OROs by the American Red Cross (ARC) under existing letters of agreement.

Criterion 6.c.1: Managers of congregate care facilities demonstrate that the centers have resources to provide services and accommodations consistent with American Red Cross planning guidelines. (Found in MASS CARE - Preparedness Operations, ARC 3031) 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, J.10.h, J.12)

EXTENT OF PLAY

State:

- N/A

County:

- The Red Cross responsibility for Mass Care Centers was demonstrated at the Weir High Complex during the 2006 Federal Evaluated Exercise, and will not be demonstrated during this exercise.

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