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FEMA

JUL 26 2016

Nuclear Regulatory Commission Headquarters
Office of Nuclear Security and Incident Response
Document Control Desk
U. S. Nuclear Regulatory Commission
Washington, DC 20555-0001

To Whom It May Concern:

Enclosed is the final After Action Report/Improvement Plan for the Peach Bottom Atomic Power Station Radiological Emergency Preparedness Plume Exercise held on April 27, 2016. This report also includes the Medical Services Drills for Union Hospital and Upper Chesapeake Hospital evaluated on March 24, 2016 and March 31, 2016 and Out of Sequence demonstrations also evaluated in March.

There were no Level 1 Findings or Planning Issues identified during the exercise. There was one Level 2 Finding identified that was successfully re-demonstrated during the exercise.

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

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

Sincerely,

MaryAnn Tierney
Regional Administrator

Enclosure

IX49
NRR

Peach Bottom Atomic Power Station

After Action Report/ Improvement Plan

Exercise Date – April 27, 2016

Radiological Emergency Preparedness (REP) Program

FEMA

Published July 15, 2016

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EXECUTIVE SUMMARY

On April 27, 2016, a full-scale Plume Exposure Pathway exercise was demonstrated and evaluated for the 10 Mile Emergency Planning Zone (EPZ) around the Peach Bottom Atomic Power Station (PBAPS) by the Federal Emergency Management Agency (FEMA), Region III. The previous full-scale exercise at this site was evaluated on April 7, 2014.

Out-of-Sequence demonstrations were conducted on March 2, 7-9, 24, 29, 30, and 31, 2016. The purpose of the Exercise and Out-of-Sequence demonstrations was to assess the capabilities of State, counties, and local jurisdictions to implement Radiological Emergency Plans and Procedures (RERP) to protect the property and lives of residents and transients in the event of an emergency at PBAPS. The findings in this report are based on the evaluations of the Federal evaluation team, with final determinations made by the FEMA, Region III Regional Assistance Committee (RAC) Chairperson, and approved by FEMA Headquarters. These reports are provided to the Nuclear Regulatory Commission (NRC) and participating states. State and local governments utilize the findings contained in these reports for the purposes of planning, training, and improving emergency preparedness.

The evaluation of this Exercise determined that there were no Level 1 Findings, one Level 2 Finding that was successfully re-demonstrated, and no Plan Issues. All prior Performance and Planning Issues were resolved during the previous exercise. A Level 1 Finding is defined by the FEMA Radiological Emergency Preparedness Program Manual as follows: An observed or identified inadequacy of organizational performance in an exercise that could cause a determination that offsite emergency preparedness is not adequate to provide reasonable assurance that appropriate protective measures can be taken in the event of a radiological emergency to protect the health and safety of the public living in the vicinity of a Nuclear Power Plant (NPP). A Level 2 Finding is defined as: An observed or identified inadequacy of organizational performance in an exercise that is not considered, by itself, to adversely impact public health and safety. Finally, a Planning Issue is: An observed or identified inadequacy in the ORO's emergency plan/implementing procedures, rather than that of the ORO's performance.

FEMA wishes to acknowledge the efforts of many individuals in the Commonwealth of Pennsylvania and the risk jurisdictions; Chester, Lancaster, and York Counties. FEMA also wishes to acknowledge the State of Maryland and the risk jurisdictions of Harford and Cecil Counties. Protecting the public health and safety is the full-time job of some of the exercise participants and an additional assigned responsibility for others. Still others have willingly sought this responsibility by volunteering to provide vital emergency services to their communities. Cooperation and teamwork of all the participants were evident during the exercise.

SECTION 1: EXERCISE OVERVIEW

1.1 Exercise Details

Exercise Name
Peach Bottom Atomic Power Station Plume

Type of Exercise
Radiological Emergency

Exercise Date
April 27, 2016

Program
Department of Homeland Security/FEMA Radiological Emergency Preparedness Program

Scenario Type
Plume Exposure Pathway

1.2 Exercise Planning Team Leadership

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1.3 Participating Organizations

Agencies and organizations of the following jurisdictions participated in the Peach Bottom Atomic Power Station exercise:

State Jurisdictions

State of Maryland

Maryland Army National Guard
Maryland Association of Soil Conservation Districts
Maryland Department of Agriculture
Maryland Department of Environment
Maryland Department of General Services
Maryland Department of Health and Mental Hygiene
Maryland Department of Human Resources
Maryland Department of Information Technologies
Maryland Department of Transportation
Maryland Emergency Management Agency
Maryland Institute for Emergency Services Systems
Maryland Joint Operations Center
Maryland Natural Resources Police
Maryland Public Service Commission
Maryland Social Services
Maryland State Highway Administration
Maryland State Police
Maryland Technology Assistance Program

Cecil County

Airville Volunteer Fire Company
Baltimore County Government
Bel Air Police Department
Cecil County Department of Emergency Services
Cecil County Department of Social Services
Cecil County Emergency Management
Cecil County Health Department
Cecil County Public Schools
Cecil County Sheriff's Office
Cecil County Soil Conservation District

Harford County

Baltimore County
Baltimore Gas and Electric
Bel Air Police Department

Harford County Administrator
Harford County Communications
Harford County Community College
Harford County Community Services
Harford County Department Public Works, Roads
Harford County Department Public Works, Water & Sewer
Harford County Emergency Services
Harford County Health Department
Harford County Human Resources
Harford County Local Emergency Planning Committee
Harford County Mental Health
Harford County Parks and Recreation
Harford County Public Schools Transportation
Harford County Sheriff's Office
Havre De Grace Police Department

Commonwealth of Pennsylvania

Pennsylvania Department of Administration
Pennsylvania Department of Aging
Pennsylvania Department of Agriculture
Pennsylvania Department of Conservation and Natural Resources
Pennsylvania Department of Corrections
Pennsylvania Department of Education
Pennsylvania Department of Environmental Protection, Bureau of Radiation Protection
Pennsylvania Department of Fish and Boat
Pennsylvania Department of General Services Administration
Pennsylvania Department of Health
Pennsylvania Department of Infrastructure
Pennsylvania Department of Military and Veteran's Affairs
Pennsylvania Department of Public Welfare
Pennsylvania Department of Transportation
Pennsylvania Emergency Management Agency
Pennsylvania Game Commission
Pennsylvania Liquor Control Board
Pennsylvania Public Utility Commission
Pennsylvania State Police
Pennsylvania Turnpike Commission

Chester County

Chester County Department of Emergency Services
Chester County Department of Emergency Services, 911 Center
Chester County Department of Emergency Services, Facilities Department

Chester County Department of Emergency Services, Technical Division
Chester County FIRST/Private Sector
Chester County Health Department
Chester County Sheriff's Office
Oxford Area School District
Oxford Area High School
Chester County Amateur Radio Emergency Services
Union Fire Company #1
West Nottingham Township Emergency Operations Center
West Nottingham Township Police Department

Lancaster County

Lancaster County Board of Commissioners
Lancaster County Chief Clerk
Lancaster County Commissioners
Lancaster County Geographical Information System
Lancaster County Public Safety Training Center
Lancaster County Sheriff
Lancaster County-Wide Communications
Lancaster County South Central Task Force
Penn Manor School District
Marticville Middle School
Solanco Area School District
Solanco High School
Clermont Elementary School
Providence Elementary School
Rawlinsville Fire Department

York County

York Adams Disaster, Crisis, Outreach and Referral Team
York Adams Transportation Authority
York City Bureau of Health
York County 911
York County Commissioners
York County Department of Emergency Services
York County HazMat Team
York County Office of Emergency Management
York County Parks and Recreation
York County Penn State Extension
York County Sheriff's Office
York Skywarn
Quarryville Borough Emergency Management Agency
Quarryville Fire Department

Quarryville Law Enforcement

Private Organizations

American Red Cross
Blue Ridge News
Delmarva Power
Exelon Nuclear
Knowledge Center, Inc.
Penn State Cooperative Extension
Radio Amateur Communications Emergency Services
Wellspan York Hospital
WXCY Radio
Union Hospital
Darlington Volunteer Fire Company
Upper Chesapeake Memorial Hospital
Rising Sun Emergency Medical Services
AMTRAK
Baltimore Gas and Electric
The Aegis

Federal Organizations

United States Coast Guard
United States Department of Agriculture

SECTION 2: EXERCISE DESIGN SUMMARY

2.1 Exercise Purpose and Design

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

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

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

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

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

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

- U.S. Department of Commerce,
- U.S. Nuclear Regulatory Commission,
- U.S. Environmental Protection Agency,
- U.S. Department of Energy,
- U.S. Department of Health and Human Services,
- U.S. Department of Transportation,

- U.S. Department of Agriculture,
- U.S. Department of the Interior, and
- U.S. Food and Drug Administration.

Representatives of these agencies serve on the Region III Radiological Assistance Committee (RAC), which is chaired by FEMA. A REP Plume Exposure Pathway Exercise was evaluated April 27, 2016, and Medical Services drills were conducted March 24, 2016 & March 31, 2016 to assess the capabilities of State and local emergency preparedness organizations in implementing their RERPs and procedures to protect the public health and safety during a radiological emergency involving Peach Bottom Atomic Power Station. The purpose of this exercise report is to present the 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 FEMA Region III Radiological Assistance Committee (RAC) Chairperson and approved by FEMA Headquarters. These reports are provided to the NRC and participating States. State and local governments utilize the findings contained in these reports for the purposes of planning, training, and improving emergency response capabilities.

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

A. 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;

B. Radiological Emergency Preparedness Program Manual, January 2016

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

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

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

Section 4 of this report, entitled "Conclusion", is a description of the Regions overall assessment of the capabilities of the participating organizations. It also presents information on planning issues if any were identified. The Appendices, present supplementary information:

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

Appendix B – Exercise Evaluators and Team leaders. A table listing the evaluator names, organizations, and responsibilities of the evaluators and management.

Appendix C – Acronyms and Abbreviations. An alphabetized table defining the formal names

Emergency Planning Zone Description

The following is a basic description of the plume exposure Emergency Planning Zone (EPZ): Exelon Nuclear owns and operates the Peach Bottom Atomic Power Station (PBAPS). The station consists of one 40-megawatt (MW), high-temperature, gas-cooled reactor (Unit 1), decommissioned in October 1974, and two operating boiling water reactors (Units 2 and 3) rated at 1,065 MW per unit. The operating licenses for the facility were granted in October 1973 (Unit 2) and July 1974 (Unit 3); commercial operation began at the site in July 1974 (Unit 2) and December 1974 (Unit 3).

The coordinates of the plant site are 39°45'32" north (latitude) by 76°16'9" west (longitude). The site consists of 620 acres located on the west shore of Conowingo Pond, a reservoir formed by the backwater of the Conowingo Dam on the Susquehanna River. The site is primarily in Peach Bottom Township, York County, Pennsylvania; a small portion of the property lies in Lancaster County in southeastern Pennsylvania near the mouth of Rock Run Creek. The minimum exclusion distance (distance from the center point of the reactor vessel to the site area boundary) specified for the PBAPS is 2,700 feet. Exelon Nuclear owns all the land within the exclusion area; there are no private residences on site.

The plant is located about 38 miles north-northeast of Baltimore, Maryland; 45 miles southeast of Harrisburg, Pennsylvania; and 20 miles south-southeast of Lancaster, Pennsylvania. The nearest communities are Delta, Pennsylvania, and Cardiff, Maryland, which are located approximately four and five miles west-southwest of the site, respectively. There are 97 sirens providing coverage for the 10-mile EPZ; 65 are in Pennsylvania. Soils of the Manor-Glenelg Association predominate in the site area. These soils, which are generally underlain by schist or phyllite, are shallow to moderately deep and are found on moderate to very steep slopes. The general topography of the site is hilly, with elevations ranging from 110 feet to over 460 feet above mean sea level (MSL); the plant is 116 feet above MSL.

The site is characterized by broad ridge tops and steep hillsides along the river. The climate in this area of York County is mild but humid. Prevailing winds are from the west. The average rainfall is approximately 40.5 inches, and the average annual temperature is 52.8° Fahrenheit. The area in the immediate vicinity of the plant is mostly agricultural. There are no commercial airports within a 10-mile radius. The closest major airport is in Harrisburg, about 50 miles northwest of the site. A smaller airport servicing commuter and private aircraft is located in Lancaster, about 25 miles north of the site. No public highways pass through the plant, and no major arterial highways pass near it. Access to the plant is by two roads: one, from the nearby town of Delta, leads to the decommissioned Unit 1 area and Information Center; the other passes north of Delta and enters the plant area near Units 2 and 3.

The 10-mile EPZ for PBAPS, with a total risk population of approximately 57,645, covers the following jurisdictions:

Commonwealth of Pennsylvania

Risk Counties:

Chester County
West Nottingham Township

Lancaster County
Drumore Township
East Drumore Township
Fulton Township
Little Britain Township
Martic Township
Providence Township
Quarryville Borough

York County
Delta Borough
Fawn Grove Borough
Fawn Township
Lower Chanceford Township
Peach Bottom Township

State of Maryland

Cecil County

Harford County

2.2 Exercise Objectives, Capabilities and Activities

The objective of the Peach Bottom Atomic Power Station 2016 Plume Exercise was to demonstrate the capabilities of State and local emergency management agencies to mobilize emergency management and emergency response personnel, to activate emergency operations centers and support facilities, and to protect the health, lives, and property of the citizens residing within the 10 mile Emergency Planning Zone (EPZ).

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

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

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

2.3 Scenario Summary

NOTE: All information below is scenario simulated. The times for the events are approximate as the NRC licensees operations crew on the reactor training simulator will be provided opportunity for free play.

An Alert is declared by 1625 due to a potential loss of the reactor coolant barrier.

At 1700, a wind shift occurs with a wind direction from 85 degrees. A Site Area Emergency is declared by 1736 due to the potential or loss of two barriers.

At 1810, a wind shift occurs with a wind direction from 65 degrees. Drywell radiation monitors ramp to 980 R/hour due to fuel failure from the uncovered reactor fuel.

A General Emergency is declared by 1830 for the potential or loss of the third barrier. The Commonwealth of Pennsylvania and the State of Maryland will make protective action decisions based Protective Action Recommendations (PARs) from the Licensee and State officials.

At 1915, a wind shift occurs with a wind direction from 30 degrees. The updated PAR adds the South downwind sector for evacuation out to five miles.

At 2030, the exercise is terminated.

SECTION 3: ANALYSIS OF CAPABILITIES

3.1 Exercise Evaluation and Results

Contained in this section are the results and findings of the evaluations of all jurisdictions and locations that participated in the April 27, 2016, biennial Plume Exposure Pathway EPZ Radiological Emergency Preparedness (REP) Exercise, and the Out of Sequence Exercise evaluations conducted in March 2, 7, 8, 9, 16, 24, 29, 30, 31 2016; and Medical Services Drills conducted March 24 & 31, 2016. The exercise was conducted to demonstrate the ability of the Offsite Response Organizations of State and local government to protect the health and safety of the public in the 10 mile Emergency Planning Zone surrounding the Peach Bottom Atomic Power Station.

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

3.2 Summary Results of Exercise Evaluation

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

(D) Demonstrated Strength: an observed action, behavior, procedure, and/or practice that is worthy of special notice and positive recognition, Note: this is already a common practice that many Regions employ when identifying demonstrated strengths.

(L1) Level 1 Finding: an observed or identified inadequacy or organizational performance in an exercise that could cause a determination that offsite emergency preparedness is not adequate to provide reasonable assurance that appropriate protective measures can be taken in event of a radiological emergency to protect the health and safety of the public living in the vicinity of a Nuclear Power Plant (NPP).

(L2) Level 2 Finding: an observed or identified inadequacy of organizational performance in an exercise that is not considered, by itself, to adversely impact public health and safety.

(P) Plan Issue: an observed or identified inadequacy of organizational in the offsite response organizations' (OROs) emergency plan/implementation procedures, rather than that of the ORO"s performance.

(N) Not Demonstrated: term applied to the status of a REP exercise Evaluation Area Criterion indicating that the ORO, for a justifiable reason, did not demonstrate the Evaluation Area Criterion, as required in the extent-of-play agreement or at the two -year or eight-year interval required in the FEMA REP Program Manual.

(M) Met: status of a REP exercise Evaluation Area Criterion indicating that the participating ORO demonstrated all demonstration criteria for the Evaluation Area Criterion to the level required in the extent of-of-play agreement with no Findings assessed in the current exercise and no unresolved prior Findings.

Tables 3.2 - Summary of Exercise Evaluation

Table 3.2a - Exercise Evaluation by Classification

Date: 4/27/2016 Site: Peach Bottom Atomic Power Station			
Location	Criteria Title	Criteria	Classification
Chester County Emergency Operations Center	Implementation of Emergency Worker Exposure Control	3a1	L2

Table 3.1c – Exercise Evaluation – Criteria Met

Date: 4/27/2016 Site: Peach Bottom Atomic Power Station		
Location	Criteria Title	Criteria
Chester County Emergency Operations Center	Emergency Information & Instructions for the Public/Media	5b1
Chester County Emergency Operations Center	Activation of the Back-up ANS	5a3
Chester County Emergency Operations Center	Activation of the Prompt Alert & Notification System	5a1
Chester County Emergency Operations Center	Equipment and Supplies to Support Operations	1e1

Chester County Emergency Operations Center	Implementation of PADs for Schools	3c2
Chester County Emergency Operations Center	Impediments to Evacuation	3d2
Chester County Emergency Operations Center	Implementation of Traffic & Access Control	3d1
Chester County Emergency Operations Center	Communications Equipment	1d1
Chester County Emergency Operations Center	Direction and Control	1c1
Chester County Emergency Operations Center	Implementation of Emergency Worker Exposure Control	3a1
Chester County Emergency Operations Center	Implementation of PADs for disabilities & access/functional needs people	3c1
Chester County Emergency Operations Center	Mobilization	1a1
Chester County Emergency Operations Center	Implementation of KI PAD for Institutionalized Individuals/Public	3b1
Cecil County Back up Route Alerting	Communications Equipment	1d1
Cecil County Back up Route Alerting	Equipment and Supplies to Support Operations	1e1
Cecil County Back up Route Alerting	Activation of the Back-up ANS	5a3
Cecil County Back up Route Alerting	Implementation of Emergency Worker Exposure Control	3a1
Cecil County Emergency Operations Center	Equipment and Supplies to Support Operations	1e1
Cecil County Emergency Operation Center	Communications Equipment	1d1
Cecil County Emergency Operations Center	Mobilization	1a1
Cecil County Emergency Operations Center	Implementation of PADs for Schools	3c2
Cecil County Emergency Operations Center	Implementation of PADs for disabilities & access/functional needs people	3c1
Cecil County Emergency Operations Center	Implementation of KI PAD for Institutionalized Individuals/Public	3b1
Cecil County Emergency Operations Center	Emergency Information & Instructions for the Public/Media	5b1
Cecil County Emergency Operations Center	Direction and Control	1c1
Cecil County Emergency Operations Center	Activation of the Back-up ANS	5a3
Cecil County Emergency Operations Center	Implementation of Traffic & Access Control	3d1

Cecil County Emergency Operations Center	Activation of the Prompt Alert & Notification System	5a1
Cecil County Emergency Operations Center	Implementation of Emergency Worker Exposure Control	3a1
Cecil County Emergency Operations Center	PADs for disabilities & access/functional needs people	2c1
Cecil County Emergency Operations Center	Emergency Worker Exposure Control Decisions	2a1
Cecil County Emergency Operations Center	Impediments to Evacuation	3d2
Cecil County Emergency Worker Monitoring & Decontamination Station Perryville High School	Monitoring/Decontamination of Emergency Workers/Equipment/Vehicles	6b1
Cecil County Emergency Worker Monitoring & Decontamination Station Perryville High School	Implementation of Emergency Worker Exposure Control	3a1
Cecil County Emergency Worker Monitoring & Decontamination Station Perryville High School	Equipment and Supplies to Support Operations	1e1
Cecil County Mass Care Center Rising Sun High School	Temporary Care of Evacuees	6c1
Cecil County Mass Care Center Rising Sun High School	Equipment and Supplies to Support Operations	1e1
Cecil County Public School District	Implementation of PADs for Schools	3c2
Cecil County Public School District Conowingo Elementary School	Implementation of PADs for Schools	3c2
Cecil County Reception Center Rising Sun High School	Monitoring, Decontamination, & Registration of Evacuees	6a1
Cecil County Reception Center Rising Sun High School	Implementation of Emergency Worker Exposure Control	3a1
Cecil County Reception Center Rising Sun High School	Equipment and Supplies to Support Operations	1e1
Cecil County Reception Center Rising Sun High School	Communications Equipment	1d1
Cecil County Rising Sun Emergency Medical Service Ambulance	Transportation/Treatment of Contaminated Injured Individuals	6d1
Cecil County Rising Sun Emergency Medical Service Ambulance	Implementation of Emergency Worker Exposure Control	3a1
Cecil County Rising Sun Emergency Medical Service Ambulance	Equipment and Supplies to Support Operations	1e1
Cecil County Traffic & Access Control Point	Impediments to Evacuation	3d2
Cecil County Traffic & Access Control Point	Implementation of Traffic & Access Control	3d1
Cecil County Traffic & Access Control Point	Implementation of Emergency Worker Exposure Control	3a1

Cecil County Traffic & Access Control Point	Equipment and Supplies to Support Operations	1e1
Cecil County Traffic & Access Control Point	Communications Equipment	1d1
Cecil County Union Hospital	Equipment and Supplies to Support Operations	1e1
Cecil County Union Hospital	Transportation/Treatment of Contaminated Injured Individuals	6d1
Cecil County Union Hospital	Equipment and Supplies to Support Operations	1e1
Chester County Oxford Area School District	Implementation of PADs for Schools	3c2
Chester County area School District Oxford Area High School	Implementation of PADs for Schools	3c2
Chester County West Nottingham Township back-Up Route Alerting	Activation of the Back-up ANS	5a3
Chester County West Nottingham Township back-Up Route Alerting	Implementation of Emergency Worker Exposure Control	3a1
Chester County West Nottingham Township back-Up Route Alerting	Equipment and Supplies to Support Operations	1e1
Chester County West Nottingham Township back-Up Route Alerting	Communications Equipment	1d1
Chester County West Nottingham Township Emergency Operations Center	Mobilization	1a1
Chester County West Nottingham Township Emergency Operations Center	Implementation of PADs for disabilities & access/functional needs people	3c1
Chester County West Nottingham Township Emergency Operations Center	Activation of the Back-up ANS	5a3
Chester County West Nottingham Township Emergency Operations Center	Implementation of Traffic & Access Control	3d1
Chester County Emergency Operation Center	Impediments to Evacuation	3d2
Chester County West Nottingham Township Emergency Operations Center	Direction and Control	1c1
Chester County West Nottingham Township Emergency Operations Center	Communications Equipment	1d1
Chester County West Nottingham Township Emergency Operations Center	Implementation of KI PAD for Institutionalized Individuals/Public	3b1

Chester County West Nottingham Township Emergency Operations Center	Equipment and Supplies to Support Operations	1e1
Chester County West Nottingham Township Emergency Operations Center	Implementation of Emergency Worker Exposure Control	3a1
Exelon Joint Information Center	Emergency Information & Instructions for the Public/Media	5b1
Exelon Joint Information Center	Communications Equipment	1d1
Harford County Back Up Route Alerting	Activation of the Back-up ANS	5a3
Harford County Back Up Route Alerting	Equipment and Supplies to Support Operations	1e1
Harford County Back Up Route Alerting	Communications Equipment	1d1
Harford County Back Up Route Alerting	Implementation of Emergency Worker Exposure Control	3a1
Harford County Congregate Care Center Patterson Mill High School	Temporary Care of Evacuees	6c1
Harford County Congregate Care Center Patterson Mill High School	Equipment and Supplies to Support Operations	1e1
Harford County Darlington Emergency Medical Services	Transportation/Treatment of Contaminated Injured Individuals	6d1
Harford County Congregate Care Center Patterson Mill High School	Implementation of Emergency Worker Exposure Control	3a1
Harford County Darlington Emergency Medical Services	Equipment and Supplies to Support Operations	1e1
Harford County Emergency Monitoring Decontamination Station Fallston High School	Monitoring/Decontamination of Emergency Workers/Equipment/Vehicles	6b1
Harford County Emergency Monitoring Decontamination Station Fallston High School	Implementation of Emergency Worker Exposure Control	3a1
Harford County Emergency Monitoring Decontamination Station Fallston High School	Equipment and Supplies to Support Operations	1e1
Harford County Emergency Monitoring Decontamination Station Fallston High School	Communications Equipment	1d1
Harford County Emergency Monitoring Decontamination Station Fallston High School	Direction and Control	1c1
Harford County Emergency Operations Center	Implementation of PADs for disabilities & access/functional needs people	3c1

Harford County Emergency Operations Center	Implementation of KI PAD for Institutionalized Individuals/Public	3b1
Harford County Emergency Operations Center	Implementation of Emergency Worker Exposure Control	3a1
Harford County Emergency Operations Center	Activation of the Back-up ANS	5a3
Harford County Emergency Operations Center	Activation of the Prompt Alert & Notification System	5a1
Harford County Emergency Operations Center	Emergency Information & Instructions for the Public/Media	5b1
Harford County Emergency Operations Center	Impediments to Evacuation	3d2
Harford County Emergency Operations Center	Implementation of Traffic & Access Control	3d1
Harford County Emergency Operations Center	Accident Assessment and PARs for the Emergency Event	2b1
Harford County Emergency Operations Center	Communications Equipment	1d1
Harford County Emergency Operations Center	Command and Control	1c1
Harford County Emergency Operations Center	Mobilization	1a1
Harford County Emergency Operations Center	Implementation of PADs for Schools	3c2
Harford County Emergency Operations Center	Emergency Worker Exposure Control Decisions	2a1
Harford County Emergency Operations Center	Facilities	1b1
Harford County Emergency Operations Center	Equipment and Supplies to Support Operations	1e1
Harford County Public School District	Implementation of PADs for Schools	3c2
Harford County Public School North Harford Elementary School	Implementation of PADs for Schools	3c2
Harford County Access & Control Point	Implementation of Traffic & Access Control	3d1
Harford County Access & Control Point	Implementation of Emergency Worker Exposure Control	3a1
Harford County Access & Control Point	Equipment and Supplies to Support Operations	1e1
Harford County Access & Control Point	Communications Equipment	1d1
Harford County Access & Control Point	Impediments to Evacuation	3d2
Harford County Emergency Operations Center	Implementation of PADs for Schools	3c2

Harford County Public School District	Implementation of PADs for Schools	3c2
Harford County Public School District North Harford Elementary School	Implementation of PADs for Schools	3c2
Harford County Public School District North Harford High School	Implementation of PADs for Schools	3c2
Harford County Public School District North Harford Middle School	Implementation of PADs for Schools	3c2
Harford County Union Medical Center	Transportation/Treatment of Contaminated Injured Individuals	6d1
Harford County Union Medical Center	Implementation of Emergency Worker Exposure Control	3a1
Harford County Union Medical Center	Equipment and Supplies to Support Operations	1e1
Lancaster County Martic Township Back-Up Route Alerting	Communications Equipment	1d1
Lancaster County Martic Township Back-Up Route Alerting	Equipment and Supplies to Support Operations	1e1
Lancaster County Martic Township Back-Up Route Alerting	Implementation of Emergency Worker Exposure Control	3a1
Lancaster County Martic Township Back-Up Route Alerting	Activation of the Back-up ANS	5a3
Lancaster County Martic Township Emergency Operations Center	Mobilization	1a1
Lancaster County Martic Township Emergency Operations Center	Command and Control	1c1
Lancaster County Martic Township Emergency Operations Center	Implementation of Emergency Worker Exposure Control	3a1
Lancaster County Martic Township Emergency Operations Center	Communications Equipment	1d1
Lancaster County Martic Township Emergency Operations Center	Implementation of KI PAD for Institutionalized Individuals/Public	3b1
Lancaster County Martic Township Emergency Operations Center	Implementation of PADs for disabilities & access/functional needs people	3c1
Lancaster County Martic Township Emergency Operations Center	Implementation of Traffic & Access Control	3d1
Lancaster County Martic Township Emergency Operations Center	Impediments to Evacuation	3d2
Lancaster County Providence Township Emergency Operations Center	Command & Control	1c1
Lancaster County Providence Township Emergency Operations Center	Communications Equipment	1d1

Lancaster County Providence Township Emergency Operations Center	Equipment and Supplies to Support Operations	1e1
Lancaster County Providence Township Emergency Operations Center	Implementation of Emergency Worker Exposure Control	3a1
Lancaster County Providence Township Emergency Operations Center	Implementation of KI PAD for Institutionalized Individuals/Public	3b1
Lancaster County Providence Township Emergency Operations Center	Implementation of PADs for disabilities & access/functional needs people	3c1
Lancaster County Providence Township Emergency Operations Center	Implementation of Traffic & Access Control	3d1
Lancaster County Providence Township Emergency Operations Center	Impediments to Evacuation	3d2
Lancaster County Emergency Worker Monitoring & Decontamination Station Lampeter Strasburg	Communications Equipment	1d1
Lancaster County Emergency Worker Monitoring & Decontamination Station Lampeter Strasburg	Monitoring/Decontamination of Emergency Workers/Equipment/Vehicles	6b1
Lancaster County Emergency Worker Monitoring & Decontamination Station Lampeter Strasburg	Implementation of Emergency Worker Exposure Control	3a1
Lancaster County Emergency Worker Monitoring & Decontamination Station Lampeter Strasburg	Equipment and Supplies to Support Operations	1e1
Lancaster County Emergency Worker Monitoring & Decontamination Station Lampeter Strasburg	Command & Control	1c1
Lancaster County Emergency Operation Center	Communications Equipment	1d1
Lancaster County Emergency Operation Center	Command & Control	1c1
Lancaster County Emergency Operation Center	Activation of the Prompt Alert & Notification System	5a1
Lancaster County Emergency Operation Center	Mobilization	1a1
Lancaster County Emergency Operation Center	Activation of the Back-up ANS	5a3
Lancaster County Emergency Operation Center	Emergency Information & Instructions for the Public/Media	5b1

Lancaster County Emergency Operation Center	Implementation of Emergency Worker Exposure Control	3a1
Lancaster County Emergency Operation Center	Implementation of KI PAD for Institutionalized Individuals/Public	3b1
Lancaster County Emergency Operation Center	Implementation of PADs for disabilities & access/functional needs people	3c1
Lancaster County Emergency Operation Center	Implementation of PADs for Schools	3c2
Lancaster County Emergency Operation Center	Impediments to Evacuation	3d2
Lancaster County Emergency Operation Center	Implementation of Traffic & Access Control	3d1
Lancaster County Emergency Operation Center	Equipment and Supplies to Support Operations	1e1
Lancaster County Mass Care Center Lampeter Strasberg School Complex	Implementation of KI PAD for Institutionalized Individuals/Public	3b1
Lancaster County Mass Care Center Lampeter Strasberg School Complex	Implementation of Emergency Worker Exposure Control	3a1
Lancaster County Mass Care Center Lampeter Strasberg School Complex	Equipment and Supplies to Support Operations	1e1
Lancaster County Mass Care Center Lampeter Strasberg School Complex	Communications Equipment	1d1
Lancaster County Mass Care Center Lampeter Strasberg School Complex	Monitoring, Decontamination, & Registration of Evacuees	6a1
Lancaster County Mass Care Center Lampeter Strasberg School Complex	Temporary Care of Evacuees	6c1
Lancaster County Monitoring & Decontamination Center Lampeter Strasberg School Complex C	Equipment and Supplies to Support Operations	1e1
Lancaster County Monitoring & Decontamination Center Lampeter Strasberg School Complex C	Equipment and Supplies to Support Operations	3a1
Lancaster County Monitoring & Decontamination Center Lampeter Strasberg School Complex C	Temporary Care of Evacuees	6c1
Lancaster County Martic Township Emergency Operations Center	Implementation of PADs for disabilities & access/functional needs people	3c1
Lancaster County Martic Township Emergency Operations Center	Impediments to Evacuation	3d2
Lancaster County Martic Township Emergency Operations Center	Implementation of Traffic & Access Control	3d1
Lancaster County Solanco School District Claremont Elementary School	Implementation of PADs for Schools	3c2

Lancaster County Solanco School District Solanco High School	Implementation of PADs for Schools	3c2
Lancaster County Solanco School District Providence Elementary School	Implementation of PADs for Schools	3c2
Lancaster County Solanco School District	Implementation of PADs for Schools	3c2
Lancaster County Penn Manor School District	Implementation of PADs for Schools	3c2
Lancaster County Penn Manor School District Marticville Middle School	Implementation of PADs for Schools	3c2
Maryland Accident Assessment State Emergency Operation Center Maryland Department of the Environment	Mobilization	1a1
Maryland Accident Assessment State Emergency Operation Center Maryland Department of the Environment	Direction and Control	1c1
Maryland Accident Assessment State Emergency Operation Center Maryland Department of the Environment	Communications Equipment	1d1
Maryland Accident Assessment State Emergency Operation Center Maryland Department of the Environment	Equipment and Supplies to Support Operations	1e1
Maryland Accident Assessment State Emergency Operation Center Maryland Department of the Environment	Emergency Worker Exposure Control Decisions	2a1
Maryland Accident Assessment State Emergency Operation Center Maryland Department of the Environment	Accident Assessment and PARs for the Emergency Event	2b1
Maryland Accident Assessment State Emergency Operation Center Maryland Department of the Environment	PAD decision-making process and coordination for the General Public	2b2
Maryland Accident Assessment State Emergency Operation Center Maryland Department of the Environment	Accident Assessment and PARs for the Emergency Event	4a2
Maryland Emergency Operations Center	Communications Equipment	1d1

Maryland Emergency Operations Center	Mobilization	1a1
Maryland Emergency Operations Center	PADs for disabilities & access/functional needs people	2c1
Maryland Emergency Operations Center	Facilities	1b1
Maryland Emergency Operations Center	Direction and Control	1c1
Maryland Emergency Operations Center	Equipment and Supplies to Support Operations	1e1
Maryland Emergency Operations Center	PAD decision-making process and coordination for the General Public	2b2
Maryland Emergency Operations Center	Activation of the Prompt Alert & Notification System	5a1
Maryland Emergency Operations Center	Implementation of Traffic & Access Control	3d1
Maryland Emergency Operations Center	Implementation of KI PAD for Institutionalized Individuals/Public	3b1
Maryland Emergency Operations Center	Implementation of PADs for disabilities & access/functional needs people	3c1
Maryland Emergency Operations Center	Implementation of PADs for Schools	3c2
Maryland Emergency Operations Center	Implementation of Traffic & Access Control	3d2
Maryland Emergency Operations Center	Emergency Information & Instructions for the Public/Media	5b1
Maryland State Field Monitoring Team A	Plume Phase Field Measurement, Handling, & Analyses	4a3
Maryland State Field Monitoring Team A	Mobilization	1a1
Maryland State Field Monitoring Team A	Implementation of Emergency Worker Exposure Control	3a1
Maryland State Field Monitoring Team A	Equipment and Supplies to Support Operations	1e1
Maryland State Field Monitoring Team A	Communications Equipment	1d1
Maryland State Field Monitoring Team B	Plume Phase Field Measurement, Handling, & Analyses	4a3
Maryland State Field Monitoring Team B	Mobilization	1a1
Maryland State Field Monitoring Team B	Implementation of Emergency Worker Exposure Control	3a1
Maryland State Field Monitoring Team B	Equipment and Supplies to Support Operations	1e1

Maryland State Field Monitoring Team B	Communications Equipment	1d1
Pennsylvania Accident Assessment Center State Emergency Operations Center Bureau of Radiation Protection	Accident Assessment and PARs for the Emergency Event	2b1
Pennsylvania Accident Assessment Center State Emergency Operations Center Bureau of Radiation Protection	Emergency Worker Exposure Control Decisions	2a1
Pennsylvania Accident Assessment Center State Emergency Operations Center Bureau of Radiation Protection	Communications Equipment	1d1
Pennsylvania Accident Assessment Center State Emergency Operations Center Bureau of Radiation Protection	Equipment and Supplies to Support Operations	1e1
Pennsylvania Accident Assessment Center State Emergency Operations Center Bureau of Radiation Protection	Direction and Control	1c1
Pennsylvania Accident Assessment Center State Emergency Operations Center Bureau of Radiation Protection	Mobilization	1a1
Commonwealth of Pennsylvania State Emergency Operation Center	Communications Equipment	1d1
Commonwealth of Pennsylvania State Emergency Operation Center	Mobilization	1a1
Commonwealth of Pennsylvania State Emergency Operation Center	PADs for disabilities & access/functional needs people	2c1
Commonwealth of Pennsylvania State Emergency Operation Center	Direction and Control	1c1
Commonwealth of Pennsylvania State Emergency Operation Center	Equipment and Supplies to Support Operations	1e1
Commonwealth of Pennsylvania State Emergency Operation Center	PAD decision-making process and coordination for the General Public	2b2
Commonwealth of Pennsylvania State Emergency Operation Center	Emergency Worker Exposure Control Decisions	2a1
Commonwealth of Pennsylvania State Emergency Operation Center	Activation of the Prompt Alert & Notification System	5a1
Commonwealth of Pennsylvania State Emergency Operation Center	Implementation of Traffic & Access Control	3d1
Commonwealth of Pennsylvania State Emergency Operation Center	Implementation of KI PAD for Institutionalized Individuals/Public	3b1

PA JIC/Rumor Control	Communications Equipment	1d1
PA JIC/Rumor Control	Emergency Information & Instructions for the Public/Media	5b1
PA TACP State Police Barracks Lancaster	Impediments to Evacuation	3d2
Pennsylvania Traffic & Access Control Point State Police Barracks Lancaster	Implementation of Traffic & Access Control	3d1
Pennsylvania Traffic & Access Control Point State Police Barracks Lancaster	Communications Equipment	1d1
Pennsylvania Traffic & Access Control Point State Police Barracks Lancaster	Implementation of Emergency Worker Exposure Control	3a1
Pennsylvania Traffic & Access Control Point State Police Barracks Lancaster	Equipment and Supplies to Support Operations	1e1
York County Emergency Operations Center	Direction and Control	1c1
York County Red Lion Area School District	Implementation of PADs for Schools	3c2
York County Red Lion Area School District	Implementation of PADs for Schools	3c2

3.3 Criteria Evaluation Summaries

3.3.1 State Jurisdictions

3.3.1.1 Maryland Accident Center, Maryland Department of the Environment

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

a. MET: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 2.a.1, 2.b.1, 2.b.2, 4.a.2,

b. LEVEL 1 FINDINGS: NONE

c. LEVEL 2 FINDINGS: NONE

d. PLAN ISSUES: NONE

e. PRIOR ISSUES: RESOLVED: NONE

f. PRIOR ISSUES: UNRESOLVED: NONE

3.3.1.2 Maryland Emergency Operations Center

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

a. MET: 1.a.1, 1.b1, 1.c.1, 1.d.1, 1.e.1, 2.b.2, 2.c.1, 3.b.1, 3.c.1, 3.c.2, 3.d.1, 5.a.1, 5.b.1

b. LEVEL 1 FINDINGS: NONE

c. LEVEL 2 FINDINGS: NONE

d. PLAN ISSUES: NONE

e. PRIOR ISSUES: RESOLVED: NONE

f. PRIOR ISSUES: UNRESOLVED: NONE

3.3.1.3 State Field Monitoring Team A

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

a. MET: 1.a.1, 1.d.1, 1.e.1, 3.a.1, 4.a.3

b. LEVEL 1 FINDINGS: NONE

c. LEVEL 2 FINDINGS: NONE

d. PLAN ISSUES: NONE

e. PRIOR ISSUES: RESOLVED: NONE

f. PRIOR ISSUES: UNRESOLVED: NONE

3.3.1.4 Maryland State Field Monitoring Team B

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

a. MET: 1.a.1, 1.d.1, 1.e.1, 3.a.1, 4.a.3

b. LEVEL 1 FINDINGS: NONE

c. LEVEL 2 FINDINGS: NONE

d. PLAN ISSUES: NONE

e. PRIOR ISSUES: RESOLVED: NONE

f. PRIOR ISSUES: UNRESOLVED: NONE

3.3.1.5 Pennsylvania Accident Assessment Center, Bureau of Radiation Protection

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

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

b. LEVEL 1 FINDINGS: NONE

c. LEVEL 2 FINDINGS: NONE

d. PLAN ISSUES: NONE

e. PRIOR ISSUES: RESOLVED: NONE

f. PRIOR ISSUES: UNRESOLVED: NONE

3.3.1.6 Pennsylvania Emergency Operations Center

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

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

b. LEVEL 1 FINDINGS: NONE

c. LEVEL 2 FINDINGS: NONE

d. PLAN ISSUES: NONE

e. PRIOR ISSUES: RESOLVED: NONE

f. PRIOR ISSUES: UNRESOLVED: NONE

3.3.1.7 Pennsylvania Joint Information Center/Rumor Control

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

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

b. LEVEL 1 FINDINGS: NONE

c. LEVEL 2 FINDINGS: NONE

d. PLAN ISSUES: NONE

e. PRIOR ISSUES: RESOLVED: NONE

f. PRIOR ISSUES: UNRESOLVED: NONE

3.3.1.8 Pennsylvania State Traffic and Access Control Points, State Police Barrack Lancaster

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

a. MET: 1.d.1, 1.e.1, 3.a.1, 3.d.3.5.2, 5.b.1

b. LEVEL 1 FINDINGS: NONE

c. LEVEL 2 FINDINGS: NONE

d. PLAN ISSUES: NONE

e. PRIOR ISSUES: RESOLVED: NONE

f. PRIOR ISSUES: UNRESOLVED: NONE

3.3.2 Risk Jurisdictions

3.3.2.1 Cecil County Back-up Route Alerting

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

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

b. LEVEL 1 FINDINGS: NONE

c. LEVEL 2 FINDINGS: NONE

d. PLAN ISSUES: NONE

e. PRIOR ISSUES: RESOLVED: NONE

f. PRIOR ISSUES: UNRESOLVED: NONE

3.3.2.2 Cecil County Emergency Operations Center

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

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

b. LEVEL 1 FINDINGS: NONE

c. LEVEL 2 FINDINGS: NONE

d. PLAN ISSUES: NONE

e. PRIOR ISSUES: RESOLVED: NONE

f. PRIOR ISSUES: UNRESOLVED: NONE

3.3.2.3 Cecil County Emergency Worker Emergency Worker Monitoring and Decontamination Station

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

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

b. LEVEL 1 FINDINGS: NONE

c. LEVEL 2 FINDINGS: NONE

d. PLAN ISSUES: NONE

e. PRIOR ISSUES: RESOLVED: NONE

f. PRIOR ISSUES: UNRESOLVED: NONE

3.3.2.4 Cecil County Mass Care Center, Rising Sun High School

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

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

b. LEVEL 1 FINDINGS: NONE

c. LEVEL 2 FINDINGS: NONE

d. PLAN ISSUES: NONE

e. PRIOR ISSUES: RESOLVED: NONE

f. PRIOR ISSUES: UNRESOLVED: NONE

3.3.2.5 Cecil County Public School District

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

a. MET: 3.c.2

b. LEVEL 1 FINDINGS: NONE

c. LEVEL 2 FINDINGS: NONE

d. PLAN ISSUES: NONE

e. PRIOR ISSUES: RESOLVED: NONE

f. PRIOR ISSUES: UNRESOLVED: NONE

3.3.2.6 Cecil County Public School District, Conowingo Elementary School

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

a. MET: 3.c.2

b. LEVEL 1 FINDINGS: NONE

c. LEVEL 2 FINDINGS: NONE

d. PLAN ISSUES: NONE

e. PRIOR ISSUES: RESOLVED: NONE

f. PRIOR ISSUES: UNRESOLVED: NONE

3.3.2.7 Cecil County Reception Center, Rising Sun High School

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

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

b. LEVEL 1 FINDINGS: NONE

c. LEVEL 2 FINDINGS: NONE

d. PLAN ISSUES: NONE

e. PRIOR ISSUES: RESOLVED: NONE

f. PRIOR ISSUES: UNRESOLVED: NONE

3.3.2.8 Cecil County Traffic and Access Control Point

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

a. MET: 1.d.1, 1.e.1, 3.a.1, 3.d.1, 3.d.2, 6.c.1

b. LEVEL 1 FINDINGS: NONE

c. LEVEL 2 FINDINGS: NONE

d. PLAN ISSUES: NONE

e. PRIOR ISSUES: RESOLVED: NONE

f. PRIOR ISSUES: UNRESOLVED: NONE

3.3.2.9 Chester County, Oxford Area School District

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

a. MET: 3.c.2

b. LEVEL 1 FINDINGS: NONE

c. LEVEL 2 FINDINGS: NONE

d. PLAN ISSUES: NONE

e. PRIOR ISSUES: RESOLVED: NONE

f. PRIOR ISSUES: UNRESOLVED: NONE

3.3.2.10 Chester County, Oxford Area School District, Oxford Area High School

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

a. MET: 3.c.2

b. LEVEL 1 FINDINGS: NONE

c. LEVEL 2 FINDINGS: NONE

d. PLAN ISSUES: NONE

e. PRIOR ISSUES: RESOLVED: NONE

f. PRIOR ISSUES: UNRESOLVED: NONE

3.3.2.11 Chester County, West Nottingham Township Back-up Route Alerting

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

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

b. LEVEL 1 FINDINGS: NONE

c. LEVEL 2 FINDINGS: NONE

d. PLAN ISSUES: NONE

e. PRIOR ISSUES: RESOLVED: NONE

f. PRIOR ISSUES: UNRESOLVED: NONE

3.3.2.12 Chester County, West Nottingham Township Emergency Operations Center

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

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

b. LEVEL 1 FINDINGS: NONE

c. LEVEL 2 FINDINGS: NONE

d. PLAN ISSUES: NONE

e. PRIOR ISSUES: RESOLVED: NONE

f. PRIOR ISSUES: UNRESOLVED: NONE

3.3.2.13 Chester County Emergency Operations Center

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

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

b. LEVEL 1 FINDINGS: NONE

c. LEVEL 2 FINDINGS: 3.a.1

d. PLAN ISSUES: NONE

e. PRIOR ISSUES: RESOLVED: NONE

ISSUE FOR CRITERION: 3.a.1

CONDITION: During the required Emergency Worker (EW) radiological briefing the Chester County Radiological Officer (RO) did not adequately deliver the briefing to two Chester County Sheriff's Office deputies serving as emergency workers.

POSSIBLE CAUSE: The RO did not adhere to the recommended procedures and provided disparate information to the emergency workers.

REFERENCE: NUREG-0654/FEMA-REP-1, K.3.a, b; K.4

EFFECT: The information briefed by the RO could have resulted in a misunderstanding of exposure control and dosimetry.

CORRECTIVE ACTION DEMONSTRATED: The briefing was successfully re-demonstrated by an alternate RO.

3.3.2.14 Harford County Back-up Route Alerting

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

a. MET: 1.d.1, 1.e.1, 3.a.1, 5.a3

b. LEVEL 1 FINDINGS: NONE

c. LEVEL 2 FINDINGS: NONE

d. PLAN ISSUES: NONE

e. PRIOR ISSUES: RESOLVED: NONE

f. PRIOR ISSUES: UNRESOLVED: NONE

3.3.2.15 Harford County Congregate Care Center, Patterson Mill High School

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

b. LEVEL 1 FINDINGS: NONE

c. LEVEL 2 FINDINGS: NONE

d. PLAN ISSUES: NONE

e. PRIOR ISSUES: RESOLVED: NONE

f. PRIOR ISSUES: UNRESOLVED: NONE

3.3.2.16 Harford County Emergency Operations Center

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

a. MET: 1.a.1, 1.b1, 1.c.1, 1.d.1, 1.e.1, 2.a.1, 2.b.1, 3.a.1, 3.b.1, 3.c.1, 3.c.2, 3.d.1, 3.d.2, 5.a.1, 5.a.3, 5.b.1

b. LEVEL 1 FINDINGS: NONE

c. LEVEL 2 FINDINGS: NONE

d. PLAN ISSUES: NONE

e. PRIOR ISSUES: RESOLVED: NONE

f. PRIOR ISSUES: UNRESOLVED: NONE

3.3.2.17 Harford County Emergency Worker Monitoring and Decontamination Station, Fallston

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

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

b. LEVEL 1 FINDINGS: NONE

c. LEVEL 2 FINDINGS: NONE

d. PLAN ISSUES: NONE

e. PRIOR ISSUES: RESOLVED: NONE

f. PRIOR ISSUES: UNRESOLVED: NONE

3.3.2.18 Harford County Public School District

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

a. MET: 3.c.21

b. LEVEL 1 FINDINGS: NONE

c. LEVEL 2 FINDINGS: NONE

d. PLAN ISSUES: NONE

e. PRIOR ISSUES: RESOLVED: NONE

f. PRIOR ISSUES: UNRESOLVED: NONE

3.3.2.19 Harford County Public School District, North Harford Elementary School

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

a. MET: 3.c.2

b. LEVEL 1 FINDINGS: NONE

c. LEVEL 2 FINDINGS: NONE

d. PLAN ISSUES: NONE

e. PRIOR ISSUES: RESOLVED: NONE

f. PRIOR ISSUES: UNRESOLVED: NONE

3.3.2.20 Harford County Public School District, North Harford High School

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

a. MET: 3.c.2

b. LEVEL 1 FINDINGS: NONE

c. LEVEL 2 FINDINGS: NONE

d. PLAN ISSUES: NONE

e. PRIOR ISSUES: RESOLVED: NONE

f. PRIOR ISSUES: UNRESOLVED: NONE

3.3.2.21 Harford County Public School District, North Harford Middle School

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

a. MET: 3.c.2

b. LEVEL 1 FINDINGS: NONE

c. LEVEL 2 FINDINGS: NONE

d. PLAN ISSUES: NONE

e. PRIOR ISSUES: RESOLVED: NONE

f. PRIOR ISSUES: UNRESOLVED: NONE

3.3.2.22 Harford County Traffic and Access Control Point

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

a. MET: 1.d.1, 1.e.1, 3.d.1, 3.d.2, 6.b.1

b. LEVEL 1 FINDINGS: NONE

c. LEVEL 2 FINDINGS: NONE

d. PLAN ISSUES: NONE

e. PRIOR ISSUES: RESOLVED: NONE

f. PRIOR ISSUES: UNRESOLVED: NONE

3.3.2.23 Lancaster County, Martic Township Backup Route Alerting

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

a. MET: 1.d.1, 1.e.1, 3.a.1, 5.a3

b. LEVEL 1 FINDINGS: NONE

c. LEVEL 2 FINDINGS: NONE

d. PLAN ISSUES: NONE

e. PRIOR ISSUES: RESOLVED: NONE

f. PRIOR ISSUES: UNRESOLVED: NONE

3.3.2.24 Lancaster County, Martic Township Emergency Operations Center

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

a. MET: 1.a1, 1.c.1, 1.d.1, 1.e.1, 3.a.1, 3.b.1, 3.c.1, 3.d.1, 3.d.2

b. LEVEL 1 FINDINGS: NONE

c. LEVEL 2 FINDINGS: NONE

d. PLAN ISSUES: NONE

e. PRIOR ISSUES: RESOLVED: NONE

f. PRIOR ISSUES: UNRESOLVED: NONE

3.3.2.25 Lancaster County, Penn Manor School District

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

a. MET: 3.c.2

b. LEVEL 1 FINDINGS: NONE

c. LEVEL 2 FINDINGS: NONE

d. PLAN ISSUES: NONE

e. PRIOR ISSUES: RESOLVED: NONE

f. PRIOR ISSUES: UNRESOLVED: NONE

3.3.2.26 Lancaster County, Penn Manor School District, Marticville Middle School

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

a. MET: 3.c.2

b. LEVEL 1 FINDINGS: NONE

c. LEVEL 2 FINDINGS: NONE

d. PLAN ISSUES: NONE

e. PRIOR ISSUES: RESOLVED: NONE

f. PRIOR ISSUES: UNRESOLVED: NONE

3.3.2.27 Lancaster County, Providence Township Emergency Operations Center

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

a. MET: 1.a1, 1.c.1, 1.d.1, 1.e.1, 3.a.1, 3.b.1, 3.c.1, 3.d.1, 3.d.2

b. LEVEL 1 FINDINGS: NONE

c. LEVEL 2 FINDINGS: NONE

d. PLAN ISSUES: NONE

e. PRIOR ISSUES: RESOLVED: NONE

f. PRIOR ISSUES: UNRESOLVED: NONE

3.3.2.28 Lancaster County, Solanco School District

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

a. MET: 3.c.2

b. LEVEL 1 FINDINGS: NONE

c. LEVEL 2 FINDINGS: NONE

d. PLAN ISSUES: NONE

e. PRIOR ISSUES: RESOLVED: NONE

f. PRIOR ISSUES: UNRESOLVED: NONE

3.3.2.29 Lancaster County, Solanco School District, Clermont Elementary School

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

a. MET: 3.c.2

b. LEVEL 1 FINDINGS: NONE

c. LEVEL 2 FINDINGS: NONE

d. PLAN ISSUES: NONE

e. PRIOR ISSUES: RESOLVED: NONE

f. PRIOR ISSUES: UNRESOLVED: NONE

3.3.2.30 Lancaster County Emergency Operations Center

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

a. MET: 1.a1, 1.c.1, 1.d.1, 1.e.1, 3.a.1, 3.b.1, 3.c.1, 3.c.2, 3.d.1, 3.d.2, 5.a.1, 5.a.3, 5.b.1

b. LEVEL 1 FINDINGS: NONE

c. LEVEL 2 FINDINGS: NONE

d. PLAN ISSUES: NONE

e. PRIOR ISSUES: RESOLVED: NONE

f. PRIOR ISSUES: UNRESOLVED: NONE

3.3.2.31 Lancaster County Emergency Worker Monitoring and Decontamination Station, Lampeter

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

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

b. LEVEL 1 FINDINGS: NONE

c. LEVEL 2 FINDINGS: NONE

d. PLAN ISSUES: NONE

e. PRIOR ISSUES: RESOLVED: NONE

f. PRIOR ISSUES: UNRESOLVED: NONE

3.3.2.32 Lancaster County Mass Care Center, Lampeter/Strasburg School Complex

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

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

b. LEVEL 1 FINDINGS: NONE

c. LEVEL 2 FINDINGS: NONE

d. PLAN ISSUES: NONE

e. PRIOR ISSUES: RESOLVED: NONE

f. PRIOR ISSUES: UNRESOLVED: NONE

3.3.2.33 Lancaster County Monitoring and Decontamination Center, Lampeter/Strasburg School

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

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

b. LEVEL 1 FINDINGS: NONE

c. LEVEL 2 FINDINGS: NONE

d. PLAN ISSUES: NONE

e. PRIOR ISSUES: RESOLVED: NONE

f. PRIOR ISSUES: UNRESOLVED: NONE

3.3.2.34 York County, Emergency Operations Center

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

a. MET: 1.a1, 1.c.1, 1.d.1, 1.e.1, 3.a.1, 3.b.1, 3.c.1, 3.c.2, 3.d.1, 3.d.2, 5.a.1, 5.a.3, 5.b.1

b. LEVEL 1 FINDINGS: NONE

c. LEVEL 2 FINDINGS: NONE

d. PLAN ISSUES: NONE

e. PRIOR ISSUES: RESOLVED: NONE

f. PRIOR ISSUES: UNRESOLVED: NONE

3.3.2.35 York County, Lower Chanceford Back-up Route Alerting

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

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

b. LEVEL 1 FINDINGS: NONE

c. LEVEL 2 FINDINGS: NONE

d. PLAN ISSUES: NONE

e. PRIOR ISSUES: RESOLVED: NONE

f. PRIOR ISSUES: UNRESOLVED: NONE

3.3.2.36 York County, Lower Chanceford Township Emergency Operations Center

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

a. MET: 1.a1, 1.c.1, 1.d.1, 1.e.1, 3.a.1, 3.b.1, 3.c.1, 3.d.1, 3.d.2

b. LEVEL 1 FINDINGS: NONE

c. LEVEL 2 FINDINGS: NONE

d. PLAN ISSUES: NONE

e. PRIOR ISSUES: RESOLVED: NONE

f. PRIOR ISSUES: UNRESOLVED: NONE

3.3.2.37 York County, Red Lion Area School District

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

a. MET: 3.c.2

b. LEVEL 1 FINDINGS: NONE

c. LEVEL 2 FINDINGS: NONE

d. PLAN ISSUES: NONE

e. PRIOR ISSUES: RESOLVED: NONE

f. PRIOR ISSUES: UNRESOLVED: NONE

3.3.2.38 York County, Red Lion Area School District, Windsor Manor Elementary School

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

a. MET: 3.c.2

b. LEVEL 1 FINDINGS: NONE

c. LEVEL 2 FINDINGS: NONE

d. PLAN ISSUES: NONE

e. PRIOR ISSUES: RESOLVED: NONE

f. PRIOR ISSUES: UNRESOLVED: NONE

3.3.2.39 York County, Red Lion School District, Red Lion Senior High School

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

a. MET: 3.c.2

b. LEVEL 1 FINDINGS: NONE

c. LEVEL 2 FINDINGS: NONE

d. PLAN ISSUES: NONE

e. PRIOR ISSUES: RESOLVED: NONE

f. PRIOR ISSUES: UNRESOLVED: NONE

3.3.3 Private Jurisdictions

3.3.3.1 Cecil County, Rising Sun Emergency Medical Services

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

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

b. LEVEL 1 FINDINGS: NONE

c. LEVEL 2 FINDINGS: NONE

d. PLAN ISSUES: NONE

e. PRIOR ISSUES: RESOLVED: NONE

f. PRIOR ISSUES: UNRESOLVED: NONE

3.3.3.2 Cecil County, Union Hospital

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

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

b. LEVEL 1 FINDINGS: NONE

c. LEVEL 2 FINDINGS: NONE

d. PLAN ISSUES: NONE

e. PRIOR ISSUES: RESOLVED: NONE

f. PRIOR ISSUES: UNRESOLVED: NONE

3.3.3.3 Exelon Joint Information Center

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

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

b. LEVEL 1 FINDINGS: NONE

c. LEVEL 2 FINDINGS: NONE

d. PLAN ISSUES: NONE

e. PRIOR ISSUES: RESOLVED: NONE

f. PRIOR ISSUES: UNRESOLVED: NONE

3.3.3.4 Harford County, Darlington Volunteer Fire Company

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

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

b. LEVEL 1 FINDINGS: NONE

c. LEVEL 2 FINDINGS: NONE

d. PLAN ISSUES: NONE

e. PRIOR ISSUES: RESOLVED: NONE

f. PRIOR ISSUES: UNRESOLVED: NONE

3.3.3.5 Harford County, Upper Chesapeake Medical Center

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

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

b. LEVEL 1 FINDINGS: NONE

c. LEVEL 2 FINDINGS: NONE

d. PLAN ISSUES: NONE

e. PRIOR ISSUES: RESOLVED: NONE

f. PRIOR ISSUES: UNRESOLVED: NONE

SECTION 4: CONCLUSION

The Commonwealth of Pennsylvania and the State of Maryland and local jurisdictions, except where noted in this report demonstrated knowledge of their Radiological Emergency Response Plans (RERP) and procedures were adequately implemented during the Peach Bottom Atomic Power Station Plume exercise evaluated on April 27, 2016.

Federal Emergency Management Agency (FEMA) evaluators provided analyses of six evaluation criteria. These analyses resulted in a determination of no Level 1 Findings, (1) One Level 2 Finding (successfully re-demonstrated), and no New Plan Issues.

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

The Rising Sun Emergency Medical Services (EMS) and the Darlington Volunteer Fire Company successfully demonstrated that necessary equipment and supplies were available to support the treatment of an injured/contaminated victim. EMS personnel prioritized life-saving medical practices over contamination concerns, implemented protective measures through the use of Personal Protective Equipment (PPE), regular glove changes, and control of cross contamination. Appropriate patient assessments were demonstrated as well as regular and ongoing communications with Upper Chesapeake and Union Hospital.

The Upper Chesapeake and Union Hospital successfully demonstrated the mobilization of staff, staffing assignments, issue of dosimetry and monitoring equipment, and effective use of Personal Protective Equipment (PPE) during the exercise. The hospital staff effectively responded to communications from the Ambulance, initiated the set-up and management of a Radiation Emergency Area (REA), and accepted and successfully treated an injured/contaminated victim while administering life-threatening medical attention over contamination concerns. In addition, the medical facility provided security control of the facility including the drop off bay for the patient and overall protective measures for contamination control and prevention of cross contamination.

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

APPENDIX A: EXERCISE TIMELINE

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

Emergency Classification level or Event	Time Utility Declared	Time That Notification Was Received at the Listed Location			
		State of Maryland EOC	AA MD (MDE)	Cecil County EOC	Harford County EOC
Unusual Event					
Alert	1614	1628	1630	1630	1630
Site Area Emergency	1730	1740	1744	1743	1743
General Emergency	1819	1841	1841	1841	1841
Simulated Radiation Release Started	N/A	1807	1823	1807	1807
Simulated Radiation Release Terminated	N/A	On-going	On-going	On-going	On-going
Facility Declared Operational		1700	1725	1700	1700
Governor's Declaration of State of Emergency		1900	1850	1900	1900
Exercise Terminated		2003	2045	2007	2007
First Precautionary/Protective Actions: Describe school activities cancelled		1756	1805	1756	1756
Parks closed		1757	1805	1757	1757
Animals placed on stored feed, water &		1800	1805	1805	1805
Rail, feed & water, Air restriction 10m restrictions 5mi/5,000		1800	1805	1805	1805
Decision		1805	1805	1815	1815
Siren Sounding		1815	1815	1815	1815
EAS Broadcast time		1818	1818	1818	1818
Second Precautionary/ Protective Actions: Describe 0-10 mi, Evacuation		1846	1850	1850	1850
Air Restrictions 10 miles 10,000 feet		1850	1850	1850	1850
Decision		1850	1850	1850	1850
Siren Sounding		1900	1900	1900	1900
EAS Message Broadcast		1903	1903	1903	1903
Decision to take KI: EWs		1814	1805	1814	1814

Emergency Classification Level or Event	Time Utility Declared	Time That Notification Was Received at the Listed Location								
		Commonwealth PA EOC	PA JIC	PA/AA (BRP)	Exelon JIC	Chester County EOC	West Nottingham Township EOC	Lancaster County EOC	Martic Township EOC	Providence Township EOC
Unusual Event										
Alert	1614	1635	1635	1624	1650	1622	1640	1622	1634	1724
Site Area Emergency	1730	1745	1745	1739	1800	1739	1750	1801	1805	1808
General Emergency	1819	1841	1841	1832	1845	1841	1841	1841	1847	1847
Simulated Radiation Release Started	1804	1807	1807	1820	1808	1808	1841	1841	1848	1847
Simulated Radiation Release Terminated	On-going	On-going	On-going	On-going	On-going	On-going	On-going	On-going	On-going	On-going
Facility Declared Operational		1635	1635	1605	1730	1637	1705	1713	1652	1730
Governor's Declaration of State of Emergency		1814	1814	1814	1822	1823	1827	1814	1814	1900
Exercise Terminated		2014	2014	2010	1945	1959	2015	2000	2000	1941
First Precautionary/Protective Actions: Describe		1805	1805	1800	1800	1805	1846	1805	1805	1805
Livestock on stored feed and Water		1805	1805	1800	1800	1805	1846	1805	1805	1805
10 mile waterway restriction;		1805	1805	1800	1800	1805	1846	1805	1805	1805
Air 5 mile 5000/ TCP		1805	1805	1800	1835	1805	1846	1805	1805	1805
ACP 10 mile rail		1805	1805	1800	1835	1805	1846	1805	1805	1805
Siren Sounding		1815	1815	1815	1822	1815	1815	1815	1815	1805
EAS Broadcast time		1818	1818	1818	1822	1818	1818	1818	1818	1808
Second Precautionary/ Protective Actions: Describe		1850	1850	1844	1900	1850	1852	1850	1850	1907
Expand air 10 mile 10,000		1850	1850	1844	1900	1850	1852	1850	1850	1907
360 10 mile, KI for all		1850	1850	1844	1900	1850	1852	1850	1850	1907
Received Evac farms		1850	1850	1849	1900	1850	1852	1850	1850	1907
Siren Sounding		1900	1900	1900	1900	1900	1900	1900	1900	1903
EAS Message Broadcast		1903	1903	1903	1900	1903	1903	1903	1903	1907
Decision to take KI: EWs		1903	1903	1903	1900	1903	1903	1903	1903	1903
Decision to take KI: Public		1903	1903	1903	1900	1903	1901	1903	1910	1910

APPENDIX B: EXERCISE EVALUATORS AND TEAM LEADERS

LOCATION	TEAM LEADER	AGENCY
Cecil County Back-up Route Alerting	John Rice	FEMA Region 1
Cecil County Emergency Operations Center	John Rice	FEMA Region 1
Cecil County Emergency Worker Emergency Worker Monitoring and Decontamination St	Martin Vyenielo	FEMA Region 3
Cecil County Mass Care Center, Rising Sun High School	Michael Shuler	FEMA Region #
Cecil County Public School District	Martin Vyenielo	FEMA Region 3
Cecil County Public School District, Conowingo Elementary School	Michael Shuler	FEMA Region 3
Cecil County Reception Center, Rising Sun High School	Martin Vyenielo	FEMA Region 3
Cecil County Traffic and Access Control Point	John Rice	FEMA Region 1
Cecil County, Rising Sun Emergency Medical Services	Barton Freeman	FMA Region 3
Cecil County, Union Hospital	John Price	FEMA Region 3
Chester County Emergency Operations Center	Lee Torres	FEMA Region 3
Chester County, Oxford Area School District	Michael Shuler	FEMA Region 3
Chester County, Oxford Area School District, Oxford Area High School	Michael Shuler	FEMA Region 3
Chester County, West Nottingham Township Back-up Route Alerting	Lee Torres	FEMA Region 3
Chester County, West Nottingham Township Emergency Operations Center	Lee Torres	FEMA Region 3
Exelon Joint Information Center	Joseph Suders	FEMA Region 3
Harford County Back-up Route Alerting	Barton Freeman	FEMA Region 3
Harford County Congregate Care Center, Patterson Mill High School	John Price	FEMA Region 3
Harford County Emergency Operations Center	Barton Freeman	FEMA Region 3
Harford County Emergency Worker Monitoring and Decontamination Station, Fallston	Martin Vyenielo	FEMA Region 3
Harford County Public School District	Barton Freeman	FEMA Region 3
Harford County Public School District, North Harford Elementary School	Barton Freeman	FEMA Region 3
Harford County Public School District, North Harford High School	Barton Freeman	FEMA Region 3
Harford County Public School District, North Harford Middle School	Barton Freeman	FEMA Region 3
Harford County Reception Center, Fallston High School	Michael Shuler	FEMA Region 3
Harford County Traffic and Access Control Point	Barton Freeman	FEMA Region 3

Harford County, Darlington Emergency Medical Services	Martin Vyenielo	FEMA Region 3
Harford County, Upper Chesapeake Medical Center	Joseph Suders	FEMA Region 3
Lancaster County Emergency Operations Center	Tina Lai-Thomas	FEMA Region 3
Lancaster County Emergency Worker Monitoring and Decontamination Station, Lampeter	Tina Lai-Thomas	FEMA Region 3
Lancaster County Mass Care Center, Lampeter/Strasburg School Complex	Tina Lai-Thomas	FEMA Region 3
Lancaster County Monitoring and Decontamination Center, Lampeter/Strasburg School	Tina Lai-Thomas	FEMA Region 3
Lancaster County Reception Center, Lancaster County Career and Technology Center	Tina Lai-Thomas	FEMA Region 3
Lancaster County, Martic Township Backup Route Alerting	Tina Lai-Thomas	FEMA Region 3
Lancaster County, Martic Township Emergency Operations Center	Tina Lai-Thomas	FEMA Region 3
Lancaster County, Penn Manor School District	Michael Shuler	FEMA Region 3
Lancaster County, Penn Manor School District, Marticville Middle School	Robert Neff	FEMA Region 3
Lancaster County, Providence Township Emergency Operations Center	Tina Lai-Thomas	FEMA Region 3
Lancaster County, Solanco School District	Michael Shuler	FEMA Region 3
Lancaster County, Solanco School District, Clermont Elementary School	Michael Shuler	FEMA Region 3
Lancaster County, Solanco School District, Providence Elementary School	Michael Shuler	FEMA Region 3
Lancaster County, Solanco School District, Solanco High School	Michael Shuler	FEMA Region 3
Maryland Accident Assessment Center, Maryland Department of the Environment	Martin Vyenielo	FEMA Region 3
Maryland Emergency News Center	John Price	FEMA Region 3
Maryland Emergency Operations Center	John Price	FEMA Region 3
Maryland State Field Monitoring Team A	Martin Vyenielo	FEMA Region 3
Maryland State Field Monitoring Team B	Martin Vyenielo	FEMA Region 3
Pennsylvania Accident Assessment Center, St Emergency Ops Center-Bureau of Radiation Protection	Martin Vyenielo	FEMA Region 3
Pennsylvania Emergency Operations Center	Joseph Suders	FEMA Region 3
Pennsylvania Joint Information Center/Rumor Control	Joseph Suders	FEMA Region 3
Pennsylvania State Traffic and Access Control Points, State Pol Barrack Lancaster	Michael Shuler	FEMA Region 3
York County Reception Center Red Lion High School	Michael Shuler	FEMA Region 3
York County, Emergency Operations Center	Thomas Murray	FEMA Region 3
York County, Lower Chanceford Back-up Route Alerting	Thomas Murray	FEMA Region 3

York County, Lower Chanceford Township Emergency Operations Center	Thomas Murray	FEMA Region 3
York County, Red Lion Area School District	Joseph Suders	FEMA Region 3
York County, Red Lion School District, Red Lion Senior High School	Joseph Suders	FEMA Region 3
York County, South Eastern School District	Michael Shuler	FEMA Region 3
York County, South Eastern School District, Fawn Elementary	Michael Shuler	FEMA Region 3
York County, South Eastern School District, South East Middle School - East	Michael Shuler	FEMA Region 3
Cecil County Back-up Route Alerting	Brenda Rembert	ICF
Cecil County Emergency Operations Center	Timothy Pflieger	DHS - FEMA
Cecil County Emergency Operations Center	Kenneth Wierman	FEMA HQ
Cecil County Emergency Operations Center	John Rice	FEMA Region 1
Cecil County Emergency Operations Center	Brian Clark	ICF
Cecil County Emergency Operations Center	William McDougall	FEMA Region 3
Cecil County Emergency Worker Emergency Worker Monitoring and Decontamination St	Martin Vyenielo	FEMA Region 3
Cecil County Emergency Worker Emergency Worker Monitoring and Decontamination St	Michael Shuler	FEMA Region 3
Cecil County Mass Care Center, Rising Sun High School	Michael Shuler	FEMA Region 3
Cecil County Public School District	Martin Vyenielo	FEMA Region 3
Cecil County Public School District, Conowingo Elementary School	Martin Vyenielo	FEMA Region 3
Cecil County Reception Center, Rising Sun High School	Martin Vyenielo	FEMA Region 3
Cecil County Traffic and Access Control Point	Bruce Swiren	ICF
Cecil County, Rising Sun Emergency Medical Services	Barton Freeman	FEMA Region 3
Cecil County, Union Hospital	John Price	FEMA Region 3
Chester County Emergency Operations Center	Dennis Branson	FEMA R7
Chester County Emergency Operations Center	Barbara Thomas	FEMA Region 1
Chester County Emergency Operations Center	Lee Torres	FEMA Region 3
Chester County Emergency Operations Center	Jon Christiansen	ICF
Chester County, Oxford Area School District	Michael Shuler	FEMA Region 3
Chester County, Oxford Area School District, Oxford Area High School	Michael Shuler	FEMA Region 3
Chester County, West Nottingham Township Back-up Route Alerting	Frank Cordaro	ICF
Chester County, West Nottingham Township Emergency Operations Center	Miriam Weston	FEMA Region 2
Chester County, West Nottingham Township Emergency Operations Center	Michael Burriss	ICF
Exelon Joint Information Center	Roger Kowieski	ICF

Harford County Back-up Route Alerting	Rosemary Samsel	ICF
Harford County Congregate Care Center, Patterson Mill High School	John Price	FEMA Region 3
Harford County Emergency Operations Center	Andrew Chancellor	FEMA R7
Harford County Emergency Operations Center	Barton Freeman	FEMA Region 3
Harford County Emergency Operations Center	Rebecca Thomson	ICF
Harford County Emergency Operations Center	Ronald Bonner	ICF
Harford County Emergency Worker Monitoring and Decontamination Station, Fallston	Martin Vyenielo	FEMA Region 3
Harford County Public School District	Ronald Bonner	ICF
Harford County Public School District, North Harford Elementary School	Roger Winkelmann	ICF
Harford County Public School District, North Harford High School	Rosemary Samsel	ICF
Harford County Public School District, North Harford Middle School	Brian Clark	ICF
Harford County Reception Center, Fallston High School	Michael Shuler	FEMA Region 3
Harford County Traffic and Access Control Point	Gary Goldberg	ICF
Harford County, Darlington Emergency Medical Services	Martin Vyenielo	FEMA Region 3
Harford County, Upper Chesapeake Medical Center	Joseph Suders	FEMA Region 3
Lancaster County Emergency Operations Center	Judy Dodgen	FEMA R7
Lancaster County Emergency Operations Center	Brad DeKorte	FEMA Region 6
Lancaster County Emergency Operations Center	David Petta	ICF
Lancaster County Emergency Operations Center	Tina Lai-Thomas	FEMA Region 3
Lancaster County Emergency Worker Monitoring and Decontamination Station, Lampeter	Robert Neff	FEMA Region 3
Lancaster County Mass Care Center, Lampeter/Strasburg School Complex	Robert Neff	FEMA Region 3
Lancaster County Mass Care Center, Lampeter/Strasburg School Complex	William McDougall	FEMA Region 3
Lancaster County Monitoring and Decontamination Center, Lampeter/Strasburg School	Robert Neff	FEMA Region 3
Lancaster County Monitoring and Decontamination Center, Lampeter/Strasburg School	William McDougall	FEMA Region 3
Lancaster County, Martic Township Backup Route Alerting	Mark Dalton	ICF
Lancaster County, Martic Township Emergency Operations Center	Kathy Duran	FEMA Region 3
Lancaster County, Martic Township Emergency Operations Center	Kerry Holmes	FEMA Region 3
Lancaster County, Penn Manor School District	Robert Neff	FEMA Region 3
Lancaster County, Penn Manor School District, Marticville Middle School	Robert Neff	FEMA Region 3

Lancaster County, Providence Township Emergency Operations Center	Robert Swartz	FEMA Region 1
Lancaster County, Providence Township Emergency Operations Center	Laurel Ryan	FEMA Region 9
Lancaster County, Solanco School District	Michael Shuler	FEMA Region 3
Lancaster County, Solanco School District, Clermont Elementary School	Michael Shuler	FEMA Region 3
Lancaster County, Solanco School District, Providence Elementary School	Michael Shuler	FEMA Region 3
Lancaster County, Solanco School District, Solanco High School	Michael Shuler	FEMA Region 3
Maryland Accident Assessment Center, Maryland Department of the Environment	Kent Tosch	ICF
Maryland Accident Assessment Center, Maryland Department of the Environment	Roger Winkelmann	ICF
Maryland Emergency Operations Center	Paul Anderson	FEMA Region 10
Maryland Emergency Operations Center	Dulcie Allen	FEMA Region 10
Maryland Emergency Operations Center	John Price	FEMA Region 3
Maryland Emergency Operations Center	Roy Smith	ICF
Maryland Emergency Operations Center	Ryan Jones	ICF
Maryland State Field Monitoring Team A	Deborah Blunt	ICF
Maryland State Field Monitoring Team B	John Wiecjorek	ICF
Pennsylvania Accident Assessment Center, State Emergency Ops Center-Bureau of Radiation Protection	Martin Vyenielo	FEMA Region 3
Pennsylvania Emergency Operations Center	Craig Fiore	FEMA HQ
Pennsylvania Emergency Operations Center	Joseph Suders	FEMA Region 3
Pennsylvania Emergency Operations Center	Jill Leatherman	ICF
Pennsylvania Emergency Operations Center	Rufus Mobley	FEMA HQ
Pennsylvania Emergency Operations Center	Steve Ward	FEMA Region 3
Pennsylvania Joint Information Center/Rumor Control	Paul Nied	ICF
Pennsylvania State Traffic and Access Control Points, State Pol Barrack Lancaster	Robert Neff	FEMA Region 3
York County, Emergency Operations Center	Taneeka Hollins	FEMA Region 1
York County, Emergency Operations Center	Cristina Schulingkamp	EPA Region 3
York County, Emergency Operations Center	Linda Gee	
York County, Emergency Operations Center	Thomas Murray	FEMA Region 3
York County, Lower Chanceford Back-up Route Alerting	Kevin Reed	ICF
York County, Lower Chanceford Township Emergency Operations Center	Helen LaForge	FEMA Region 1
York County, Lower Chanceford Township Emergency Operations Center	Lisa Rink	FEMA HQ
York County, Red Lion Area School District	Joseph Suders	FEMA Region 3

York County, Red Lion Area School District, Windsor Manor Elementary School	Joseph Suders	FEMA Region 3
York County, Red Lion School District, Red Lion Senior High School	Joseph Suders	FEMA Region 3
York County, South Eastern School District	Joseph Suders	FEMA Region 3
York County, South Eastern School District, Fawn Elementary	Joseph Suders	FEMA Region 3
York County, South Eastern School District, South East Middle School - East	Joseph Suders	FEMA Region 3

APPENDIX C: ACRONYMS AND ABBREVIATIONS

Acronym	Meaning
AAC	Accident Assessment Center
ACP	Access Control Points
ALARA	As Low As Reasonably Achievable
ARC	American Red Cross
ARCA	Area Requiring Corrective Action
ARD	Automatic Ring Down
ARES	Amateur Radio Emergency Services
CCC	Congregate Care Center
CFC	Community Fire Company
CFD	Community Fire Department
CMARC	Central Maryland Area Radio Communications
CO	Communications Operator
CP	Command Post
DFTR	Dedicated Field Team Response
DRD	Direct Reading Dosimeters
DS	District Superintendent
EAS	Emergency Alert System
ECC	Emergency Communications Center
ECL	Emergency Classification Level
EMA	Emergency Management Agency
EMC	Emergency Management Coordinator
EMD	Emergency Management Director
EMS	Emergency Medical Services
ENF	Emergency Notification Form
ENR	Emergency Notification Report
EOC	Emergency Operations Center
EOF	Emergency Operations Facility
EOP	Emergency Operations Plan
EPA	Environmental Protection Agency
EPD	Electronic Personal Dosimeter
EPI	Emergency Public Information
EPLO	Emergency Preparedness Liaison Officer
EPZ	Emergency Planning Zone
ERC	Emergency Response Coordinator

ERO	Emergency Response Organization
ERT	Emergency Response Teams
ESF	Emergency Support Functions
EW	Emergency Workers
FD	Fire Department
FEMA	Federal Emergency Management Agency
FTC	Field Team Coordinator
FTEOC	Fulton Township Emergency Operation Center
FTL	Field Team Leader
GE	General Emergency
GIS	Geographical Information System
GM	Geiger Muller
GPS	Global Positioning System
HAB	Hostile Action Based
HCC	Hartford Community College
HCEMA	Hartford County Emergency Management Agency
HCEOC	Harford County Emergency Operations Center
HCHD	Harford County Health Department
HCHT	Harford County Hazmat Team
HCS	Hartford Christian School
HCSO	Harford County Sheriff's Office
HCTHS	Hartford County Technical High School
HM	Hazardous Materials
HO	Health Officer
HR	Human Resources
HS	High School
IC	Incident Commander
ICP	Incident Command Post
ICS	Incident Command System
JIC	Joint Information Center
LBTEOC	Little Britain Township Emergency Operations Center
LCEOC	Lancaster County Emergency Operations Center
LCRO	Lancaster County Radiological Officer
LEMA	Lancaster Emergency Management Agency
LEOC	Lancaster Emergency Operations Center
LGIA	Large Group Instructional Area

MCC	Mass Care Center
MDT	Mobile Data Terminal
MEMA	Maryland Emergency Management Agency
MJOC	Maryland Joint Operations Center
MNRP	Maryland Natural Resources Police
MS	Middle School
MSEL	Master Scenario Events List
MSP	Maryland State Police
NARS	Nuclear Accident Reporting System
OASD	Oxford Area School District
ORO	Offsite Response Organization
OSL	Optically Stimulated Luminescent
PAD	Protective Action Decision
PAG	Protective Action Guide
PAR	Protective Action Recommendation
PBAPS	Peach Bottom Atomic Power Station
PBNPS	Peach Bottom Nuclear Power Station
PEMA	Pennsylvania Emergency Management Agency
PIC	Public Information Center
PIO	Public Information Officer
PM	Portal Monitor
PMHS	Penn Manor High School
PMSD	Penn Manor School District
PPE	Personal Protection Equipment
PRD	Permanent Record Dosimeters
PSP	Pennsylvania State Police
PVES	Pleasant View Elementary School
RACES	Radio Amateur Civil Emergency Service
RAD	Radiological Assessment Director
RC	Reception Center
REA	Radiation Emergency Area
REP	Radiological Emergency Preparedness
REPE	Radiological Emergency Preparedness Exercise
RERP	Radiological Emergency Response Plan
RHP	Radiation Health Protection
RLAJHS	Red Lion Area Junior High School
RLASD	Red Lion Area School District

RLASHS	Red Lion Area Senior High School
RO	Radiological Officer
RSEMS	Rising Sun Emergency Medical Services
RSO	Radiation Safety Officer
SAE	Site Area Emergency
SCO	State Coordinating Officer
SEMSW	South Eastern Middle School West
SEOC	State Emergency Operations Center
SESD	South Eastern School District
SESDO	South Eastern School District Office
SEVAN	State Emergency Voice Activation Network
SFMT	State Field Monitoring Team
SFP	Spent Fuel Pool
SHA	State Highway Administration
SME	Subject Matter Expert
SNB	Special News Bulletins
SOP	Standard Operating Procedures
SSO	Senior State Official
TCP	Traffic Control Points
TEDE	Total Effective Dose Equivalent
TLD	Thermo Luminescent Dosimeter
URI	Unified RASCAL Interface
VP	Vice Principal
WNT	West Nottingham Township
YCEOC	York County Emergency Operations Center

APPENDIX D: EXTENTS OF PLAY

The 2016 Peach Bottom Atomic Power Station, Extents of Play Radiological Emergency Preparedness Exercise was negotiated and agreed upon by FEMA Region III, PEMA, MEMA, and the emergency management agencies of the Risk and Support Counties.

Commonwealth of Pennsylvania Extent of Play

2016 RADIOLOGICAL EMERGENCY PREPAREDNESS EXERCISE

METHOD OF OPERATION

I. Peach Bottom Atomic Power Station (PBAPS)

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. A pre-approved exercise scenario will be used. PBAPS will notify the State Emergency Operations Center (SEOC), the Bureau of Radiation Protection (BRP) and Risk Counties of emergency classifications.

II. Bureau of Radiation Protection (BRP)

Personnel from the Pennsylvania Bureau of Radiation Protection (BRP) will be present and participate in the following aspects of the exercise during the Plume Exercise:

State EOC
Exelon Emergency Operations Facility (EOF)
Field Sampling Teams & Command Vehicle

BRP personnel field teams and R3V will NOT be evaluated during this exercise but BRP assessment will be evaluated as part of the PEMA SEOC evaluation. In the event the scenario has no radiological release, a report of Background Radiation by the Field Monitoring Team would be considered a successful demonstration of the criterion.

III. PEMA Operations at SEOC

This "Method of Operation" Document includes activities for the Full-Scale Plume Exercise (April 27, 2016), and the "Out-of-Sequence" Activities (Various).

A. Plume Exercise – April 27, 2016

PEMA Staff and Emergency Preparedness Liaison Officers (EPLOs) from designated state departments / agencies will comprise initial operations at the SEOC. The SEOC will be evaluated during this exercise.

B. Plume Exercise – "Out-of-Sequence" Activities – March 7-9, 2016

The PEMA staff will disseminate exercise related messages to the participating Counties for dissemination to the participating School Districts during the demonstration windows on March 7-9, 2016. The State EOC and County EOCs will participate, but will not be

evaluated during the "Out of Sequence" component. PEMA personnel will serve as "observers" at the identified School Districts.

C. Plume Exercise – "Out-of-Sequence" Activities – March 16, 2016

The Pennsylvania State Police (PSP) demonstration will take place at PSP York Barracks, located at 110 Trooper Court, York, Pennsylvania. The PSP briefing will be performed out-of-sequence in a demonstration window of 9:30 a.m. to 11:30 a.m. on March 16, 2016.

PEMA personnel will serve as "Observers" at the field exercise locations during the evening "out-of-sequence" component at 7:00 p.m. – 9:30 p.m. on March 7, 2016. The SEOC and Counties will not be evaluated during the evening "out-of-sequence" component.

IV. PEMA Area Office Operations

The PEMA Area Offices (Harrisburg-Central Area and Hamburg-Eastern Area) will not be activated nor evaluated during this exercise. Selected staff of the Area Offices will serve as Liaison Officers to Risk Counties as assigned. Liaison Officers are exercise participants.

V. Counties Designated to Participate

The three risk counties (Chester, Lancaster and York), 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. Actual sheltering or evacuation of the general public will be simulated.

VI. Local Emergency Management

All affected local municipalities, along with supporting agencies, will participate in the plume exercise. On a rotating basis, local municipalities will be federally evaluated as coordinated by PEMA and their associated county (once per 8 year cycle). They will demonstrate mobilization of staff, activation of their Emergency Operation Center, and implementation of emergency response operations. Some municipalities may be evaluated on Back-up Route Alerting or TCP / ACP operations. See Attachment A Sections 1.A.2, 1.A.3, and 1.A.4 for those locations being federally evaluated.

VII. PEMA Liaison Officers

Liaison officers will be present at the participating risk county EOCs, the Exelon EOF, and Exelon JIC to provide assistance, guidance, and support. These liaison officers will participate as players in the exercise.

VIII. Controllers

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.

A lead controller will be present in the State EOC during the Plume Phase Exercise (April 27, 2016) and not for the out of sequence School exercises (March 7-9, 2016).

A controller will be present at each of the emergency worker monitoring / decontaminating stations and public monitoring and decontamination centers that are scheduled for evaluation on the evening of March 7, 2016 at 7:00 p.m. – 9:30 p.m. The controller for these locations is provided by the Utility.

Live radioactive sources will not be used. ***Exception:*** individuals tasked with the setup of portal monitoring equipment (if used) 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.

IX. 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 XIV)

X. FEMA Evaluators

Federal evaluators will be present at the risk and support county EOCs, identified risk municipal EOCs, and at appropriate field locations to evaluate player response to the actual and simulated events in the exercise scenario. FEMA will evaluate about one-

third of the risk municipalities in Chester, Lancaster and York Counties as identified in this document. The exercise will follow REP Program Manuel (July 2015)

Plume Phase Exercise (April 27, 2016): Federal evaluators will be present at the SEOC and identified risk and support county EOC's to evaluate player response to the actual and simulated events in the exercise scenario. Additionally, one-fourth of the risk municipalities will be federally evaluated. As required, a "floating-evaluator" will be made available for the purpose of evaluating any ORO locations not scheduled to have a federal evaluator, but having a prior issue (Attachment A, Section I.A.1 and I.A.2).

Out-of-Sequence - Schools (March 7-9, 2016): Federal evaluators will be present at the identified "out-of-sequence" demonstration sites per Attachment A, Section I.B.1. These include the identified Public School Districts.

Out-of-Sequence – Pennsylvania State Police (March 16, 2016): PSP demonstration will take place at PSP Lancaster Barracks, located at 2099 Lincoln Highway East, Lancaster, Pennsylvania. The PSP briefing will be performed "out-of-sequence" in a demonstration window of 9:30 a.m. to 11:30 a.m.

Out-of-Sequence – Reception Center, Public and Emergency Worker Monitoring and Decontamination Stations, Mass Care Locations (March 7, 2016): Federal evaluators will be present for demonstrations conducted at Reception Centers, Mass Care Centers, and Monitoring / Decontamination Centers (for the public) and Stations (for Emergency Workers) as identified in Attachment A, Sections I.B.3, I.B.4 and I.B.5 .

XI. 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 following out-of-sequence MS-1 hospital demonstrations ware federally evaluated: Ephrata Community Hospital on April 23, 2015, York Hospital on May 28, 2015, and Brandywine Hospital on August 11, 2015

There will not be an evaluation of BRP field teams and R3V for this exercise.

County and municipal EOC operations will be conducted on the evening of April 27, 2016. (Please refer to the Extent of Play Demonstration Tables, Attachment A, Sections I.A.1 and I.A.2).

The out-of-sequence exercise window for school demonstrations will follow the schedule found in the Demonstration Tables, Attachment A, Section I.B.1

The out-of-sequence interview of PSP traffic control / access control points will be from 9:30 a.m. – 11:30 a.m. on March 16, 2016.

The out-of-sequence demonstrations for Reception Centers, Mass Care Centers, and Monitoring / Decontamination Centers (for the public) and Stations (for Emergency Workers) will be conducted from 7:00 p.m. – 9:30 p.m. on March 7, 2016 per Attachment A, Sections I.B.3, I.B.4 and I.B.5.

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

B. Post Plume Exercise

A post-plume phase exercise is not scheduled during this evaluation.

XII. Stand-Down

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

A. Upon completion of all requirements and confirming with the federal evaluator that all evaluation areas have been demonstrated and/or completed, the risk municipality EOCs may request approval from their county EOC to "stand-down".

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

The risk county EOCs will remain operational until the exercise is officially terminated by the State in consultation with the federal evaluator. The SEOC will issue an Exercise Termination Message. If county exercise components are demonstrated and completed, portions of the EOC may be able to stand down.

XIII. 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 corrected.

XIV. Re-demonstrations

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 may 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. PEMA may advise the Regional Assistance Committee (RAC) Chair prior to initiating any re-demonstrations. It is permissible to extend the demonstration window, within reason, to accommodate the re-demonstration. Activities corrected from a re-demonstration will be so noted.

EXTENT-OF-PLAY AGREEMENT

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

EVALUATION AREA 1: Emergency Operations Management

Sub-element 1.a – Mobilization

INTENT

This Sub-element is derived from NUREG-0654 / FEMA-REP-1, which requires that OROs have the capability to alert, notify, and mobilize emergency personnel, and 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 / FEMA-REP-1, A.1.a, e; A.3, 4; C.1, 4, 6; D.4; E.1, 2; H.3, 4)
Assessment / Extent-of-Play

Assessment of the Demonstration Criterion may be accomplished during a biennial exercise, an actual event, out-of-sequence evaluation or by means of drills, conducted at any time.

Responsible OROs must demonstrate the capability to receive notification of an incident from the licensee; verify the notification; and contact, alert, and mobilize key emergency personnel in a timely manner and demonstrate the ability to maintain and staff 24-hour operations. Twenty-four hour operations can be demonstrated during the exercise via rosters or shift changes or otherwise in an actual activation. Local responders must demonstrate the ability to receive and/or initiate notification to the licensees or other respective emergency management organizations of an incident in a timely manner, when they receive information from the licensee or alternate sources. Responsible OROs must demonstrate the activation of facilities for immediate use by mobilized personnel upon their arrival. Activation of facilities and staff, including those associated with the Incident Command System, must be completed in accordance with ORO plans / procedures. The location and contact information for facilities included in the incident command must be available to all appropriate responding agencies and the NPP after these facilities have been activated.

Pre-positioning of emergency personnel is appropriate, in accordance with the Extent-of-Play Agreement, at those facilities located beyond a normal commuting distance from the individual's duty location or residence. This includes the staggered release of resources from an assembly area. Additionally, pre-positioning of staff for out-of-sequence demonstrations may be used in accordance with the Extent-of-Play Agreement.

The REP program does not evaluate Incident Command System tactical operations (e.g., Law Enforcement hostile action suppression techniques), only coordination among the incident command, the utility, and all appropriate OROs, pursuant to plans / procedures.

Initial law enforcement, fire service, HAZMAT, and emergency medical response to the NPP site may impact the ability to staff REP functions. The ability to identify and request additional resources or identify compensatory measures must be demonstrated. Exercises must also address the role of mutual aid in the incident, as appropriate. An integral part of the response to an HAB scenario at an NPP may also be within the auspices of the Federal Government (e.g., FBI, NRC, or DHS). Protocols for requesting Federal, state, local, and tribal law enforcement support must be demonstrated, as appropriate. Any resources identified through LOA / MOUs must be on the ORO's mobilization list so they can be contacted during an incident, if needed.

PEMA Negotiated Extent-of-Play:

- 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, PSP, TCP/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.
- Pre-positioning of state emergency personnel (Liaison Officers) at the EOF, the Utility JIC and at Risk Counties is appropriate due to the commuting distance from the individual's duty location or residence.
- Other locations including municipal EOCs will NOT pre-stage for the Plume Phase exercise but will wait for actual notification per plans and procedures before staffing their duty locations.
- BRP Field Teams and R3V are NOT evaluated for this exercise.

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 / FEMA-REP-1, H.3; G.3.a; J.10.h; J.12; K.5.b)

Assessment / Extent-of-Play

Assessment of this Demonstration Criterion may be accomplished during a biennial exercise, an actual event, SAVs, or by out-of-sequence evaluations.

Responsible OROs must demonstrate, no less than once every 8 years, the availability of fixed facilities that support accomplishment of emergency operations (this includes all alternate and backup facilities). Evaluations are performed for EOCs and JICs, as well as, other fixed facilities such as reception / relocation centers. Some of the areas evaluated within the facilities are adequate space, furnishings, lighting, restrooms, ventilation, backup power, and/or alternate facility, if required to support operations. Radio stations, laboratories, initial warning points and hospitals are not evaluated under 1.b.1.

In addition, facilities will be evaluated for this criterion during the first biennial exercise after any new or substantial changes in structure, equipment, or mission that affect key capabilities, as

outlined in respective emergency plans / procedures. A substantial change is one that has a direct effect or impact on emergency response operations performed in those facilities. Examples of substantial changes include modifying the size or configuration of an emergency operations center, adding more function to a center, or changing the equipment available for use in a center.

PEMA Negotiated Extent-of-Play:

Municipalities will demonstrate this criteria during each federal evaluation they receive (generally once per 8 year cycle) and counties will demonstrate this criteria once in each 8 year cycle unless new or substantial improvements occur.

Sub-element 1.c - Direction and Control

INTENT

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

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

Assessment / Extent-of-Play

Assessment of this Demonstration Criterion may be accomplished in a biennial or tabletop exercise.

Leadership personnel must demonstrate the ability to carry out the essential management functions of the response effort (e.g., keeping staff informed through periodic briefings and/or other means, coordinating with other OROs, and ensuring completion of requirements and requests). Leadership must demonstrate the ability to prioritize resource tasking and replace / supplement resources (e.g., through MOUs or other agreements) when faced with competing demands for finite resources. Any resources identified through LOA / MOUs must be on the ORO's mobilization list so they may be contacted during an incident, if needed.

PEMA Negotiated Extent-of-Play:

None

Sub-element 1.d – Communications Equipment

INTENT

This Sub-element is derived from NUREG-0654 / FEMA-REP-1, which requires that OROs establish and operate reliable primary and backup communication systems to ensure communications with key emergency personnel at locations such as contiguous governments within the EPZ, Federal emergency response organizations, the licensee and its facilities, EOCs, Incident Command Posts, and Field Monitoring Teams (FMTs).

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

Assessment / Extent-of-Play

Assessment of this Demonstration Criterion is accomplished initially in a baseline evaluation and subsequently in periodic testing and drills. System familiarity and use must be demonstrated as applicable in biennial or tabletop exercises, or if their use would be required, during an actual event.

OROs must demonstrate that a primary system, and at least one backup system for fixed facilities, is fully functional at all times. Communications systems are maintained and tested on a recurring basis throughout the assessment period and system status is available to all operators. Periodic test results and corrective actions are maintained on a real time basis. 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 are used as needed for transmission and receipt of exercise messages. All facilities, FMTs, and incident command must have the capability to access at least one communication system that is independent of the commercial telephone system. Responsible OROs must demonstrate the capability to manage the communication systems and ensure that all message traffic is handled without delays that might disrupt emergency operations. OROs must ensure that a coordinated communication link for fixed and mobile medical support facilities exists. Exercise scenarios may require the failure of a communication system and use of an alternate system, as negotiated in the Extent-of-Play Agreement.

PEMA Negotiated Extent-of-Play:

The plant will communicate to the risk counties and SEOC utilizing the Dedicated Automatic Ring Down Telephone System (ARD) (Primary) and the commercial telephone system (Secondary). If the plant cannot contact the SEOC, the Power Plant will contact the York County EOC and York County EOC will fulfill the role of primary contact until such time as communications with the SEOC can be made.

Risk counties will communicate with the SEOC via the commercial telephone system (Primary), email (Secondary) and other systems.

Risk counties will communicate with their risk municipalities via public safety radio frequencies (EMA Radio), commercial telephone, fax, email, or Amateur Radio Communications (ACS / ARES / RACES) or other available means.

BRP Field Teams will demonstrate two or more forms of communications (Field Teams and R3V NOT evaluated for this exercise).

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

INTENT

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

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

Assessment / Extent-of-Play

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

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

Specific equipment and supplies that must be demonstrated under this criterion include KI inventories, dosimetry, and monitoring equipment, as follows:

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

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

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

Appropriate direct-reading dosimetry must allow an individual(s) to read the administrative reporting limits and maximum exposure limits contained in the ORO's plans / procedures.

Direct-reading dosimeters must be zeroed or operationally checked prior to issuance. The dosimeters must be inspected for electrical leakage at least annually and replaced when necessary. Civil Defense Victoreen Model 138s (CD V-138s) (0-200 mR), due to their documented history of electrical leakage problems, must be inspected for electrical leakage at least quarterly and replaced when necessary. This leakage testing will be verified during the exercise, through documentation submitted in the ALC and/or through an SAV.

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

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

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

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

Mutual Aid Resources: If the incoming resources arrive with their own equipment (i.e., monitors and / or dosimetry) they will be evaluated by REP Program standards. FEMA will not inventory equipment that is not part of the REP Program. If an agency has a defined role in the REP Plan, they are subject to the planning process and standards, as well as the guidance of this Manual.

PEMA Negotiated Extent-of-Play:

Radiological Survey Instruments are calibrated per manufactures' recommendations. Neither CDV-700 nor CDV-138 instruments are in use in the area.

Evaluation of DRD and KI quantities will be verified using inventory sheets. DRDs or KI will not be removed from storage locations and boxes / packages will not be opened, however, lot numbers and expiration dates should be visible for inspection. KI questions will be addressed through interviews.

Annual Direct Reading Dosimeter leakage testing verification or KI extension letters (as appropriate) will be available to the evaluator.

Pennsylvania Support Counties do not have DRDs or KI but those responsible for reception centers, and / or monitoring and decontamination centers will have PRDs.

All DRDs "read" in units of Roentgens. The Commonwealth counties and municipalities do not use DRDs which read in milli-Roentgens.

Reception Centers shall be evaluated on their ability to use maps or other documentation to direct evacuating persons to the correct Monitoring / Decontamination Centers and/or Mass Care Centers (as Applicable). If Reception Centers are co-located with Monitoring / Decontamination Centers and Mass Care Centers the use of maps or documents to provide direction does not apply.

BRP Field Teams and R3V will NOT be evaluated for this exercise.

ASSESSMENT AREA 2; Precautionary and / or Protective Action Decision Making

Sub-element 2.a - Emergency Worker Exposure Control

INTENT

This Sub-element is derived from NUREG-0654 / FEMA-REP-1, which requires that OROs 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 / 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 (TEDE) or organ-specific limits) identified in the ORO's plans / procedures.

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

Assessment / Extent-of-Play

Assessment of this Demonstration Criterion must be assessed concurrently with a licensee exercise and may be demonstrated in a biennial or tabletop exercise.

OROs authorized to send emergency workers into the plume exposure pathway EPZ must demonstrate a capability to comply with emergency worker exposure limits based on their emergency plans / procedures.

Participating OROs must also demonstrate the capability to make decisions concerning authorization of exposure levels in excess of pre-authorized levels and the number of emergency workers receiving radiation doses above pre-authorized levels. This would include providing KI and dosimetry in a timely manner to emergency workers dispatched onsite to support plant incident assessment and mitigating actions, in accordance with respective plans / procedures.

As appropriate, OROs must demonstrate the capability to make decisions on the distribution and administration of KI as a protective measure for emergency workers, based on their plans/ procedures or projected thyroid dose compared with the established PAGs for KI administration.

PEMA Negotiated Extent-of-Play:

Radiological briefings (which may be supported by video) will be provided to address exposure limits, procedures to replace those personnel approaching exposure 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 to emergency workers will be simulated. The Commonwealth, under direction of the Department of Health, will authorize use of KI when radiological conditions warrant its use. If the scenario has no potential for a radiological release, the decision on the distribution and administration of KI as a protective measure for emergency workers and the authorization process for emergency workers to exceed pre-authorized levels can be addressed through an interview.

The completion of a "Dosimetry-KI Report Form" will be demonstrated.

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 / FEMA-REP-1, which requires that OROs have the capability to independently project integrated dose from projected or actual dose rates and compare these estimates to the PAGs.

OROs must have the capability to choose, among a range of protective actions, those most appropriate in a given emergency. OROs base these choices on PAGs from their plans / procedures or EPA's Manual of Protective Action Guides and Protective Actions for Nuclear Incidents and other criteria, such as plant conditions, licensee PARs, coordination of PADs with other political jurisdictions (e.g., other affected OROs and incident command), availability of in-place shelter, weather conditions, and situations, to include HAB incidents, the threat posed by the specific hostile action, the affiliated response, and the effect of an evacuation on the threat response effort, that create higher than normal risk from general population evacuation.

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

Assessment / Extent-of-Play

Assessment of this Demonstration Criterion must be accomplished concurrently with a licensee exercise and may be demonstrated in a biennial or tabletop exercise.

During the initial stage of the emergency response, following notification of plant conditions that may warrant offsite protective actions, the ORO must demonstrate the capability to use appropriate means, described in the plans / procedures, to develop PARs for decision-makers based on available information and recommendations provided by the licensee, as well as, field monitoring data, if available. The ORO must also consider any release and meteorological data provided by the licensee.

The ORO must 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 must be appropriate to the scenario. In all cases, calculation of projected dose must be demonstrated. Projected doses must be related to quantities and units of the PAG to which they will be compared. PARs must be promptly transmitted to decision-makers in a pre-arranged format.

When the licensee and ORO projected doses differ by more than a factor of 10, the ORO and licensee must determine the source of the difference by discussing input data and assumptions, using different models, or exploring possible reasons. Resolution of these differences must be incorporated into the PARs if timely and appropriate. The ORO must demonstrate the capability to use any additional data to refine projected doses and exposure rates and revise the associated PARs.

PEMA Negotiated Extent-of-Play:

BRP will validate plant dose projections and coordinate resolution of differences if more than a factor of 10. If the scenario has no radiological release, or potential of a radiological release, the decision-making process used to make PADs can be addressed through an interview (Note: BRP not evaluated for this exercise).

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

Assessment/Extent-of-Play

Assessment of this Demonstration Criterion must be accomplished concurrently with a licensee exercise and may be demonstrated in a biennial or tabletop exercise.

OROs must have the capability to make both initial and subsequent precautionary and / or protective action decisions. OROs must demonstrate the capability to make initial precautionary and / or protective action decisions in a timely manner appropriate to the incident, based on information from the licensee, assessment of plant status and potential or actual releases, other available information related to the incident, input from appropriate ORO authorities (e.g., incident command), and PARs from the utility and ORO staff. In addition, a subsequent or alternate precautionary and / or protective action decision may be appropriate if various conditions (e.g., an HAB incident, weather, release timing and magnitude) pose undue risk to an evacuation, or if evacuation may disrupt the efforts to respond to a hostile action.

OROs must demonstrate the ability to obtain supplemental resources (e.g., mutual aid) necessary to implement a PAD if local law enforcement, fire service, HAZMAT, and emergency medical resources are utilized to augment response to the NPP site or other key infrastructure. Dose assessment personnel may provide additional PARs based on the subsequent dose projections, field monitoring data, or information on plant conditions. In addition, incident command must provide input regarding considerations for subsequent PARs based on the magnitude of the ongoing threat, the response, and/or site conditions. The decision-makers must demonstrate the capability to change protective actions based on the combination of all these factors.

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

If more than one ORO is involved in decision making, all appropriate OROs must communicate and coordinate PADs with each other. In addition, decisions must be coordinated/ communicated with Incident Command. OROs must demonstrate the capability to communicate the results of decisions to all the affected locations.

PEMA Negotiated Extent-of-Play:

The Commonwealth, in developing a PAD, will base the decision upon plant recommendation and condition, confirmation and advice of BRP, environmental data, impediments, and other factors that may impact the decision. If the scenario has no radiological release, or potential of a radiological release, the decision-making process used to make PADs can be addressed through an interview.

The Commonwealth will include Maryland and it's affected counties in the decision making process but they may make a decision independent of ours.

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

INTENT

This Sub-element is derived from NUREG-0654 / FEMA-REP-1, which requires that OROs have the capability to determine precautionary and / or protective action decisions, including evacuation, sheltering, and use of KI, if applicable, for groups of persons with disabilities and access / functional needs (e.g., hospitals, nursing homes, correctional facilities, schools, licensed daycare centers, mobility-impaired individuals, and transportation-dependent individuals). The focus is on those groups of persons with disabilities and access / functional needs that are, or potentially will be, affected by a radiological release from an NPP.

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

Assessment / Extent-of-Play

Assessment of this Demonstration Criterion must be accomplished concurrently with a licensee exercise and may be demonstrated in a biennial or tabletop exercise that would include the use of plant conditions transmitted from the licensee.

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 incidents where there is a high-risk

environmental condition or where high-risk groups (e.g., the immobile or infirm) are involved. In these cases, factors that must be considered include weather conditions, shelter availability, availability of transportation assets, risk of evacuation versus risk from the avoided dose, and precautionary school evacuations. In addition, decisions must be coordinated / communicated with the Incident Command. In situations where an institutionalized population cannot be evacuated, the ORO must consider use of KI.

Applicable OROs must 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. Demonstration requires that the OROs actually contact public school systems / districts during the exercise.

The OROs must demonstrate how the decision-making process takes those with disabilities and access / functional needs (e.g. nursing homes, correctional facilities, licensed day cares, mobility-impaired individuals, and transportation-dependent individuals) into account.

In accordance with plans / procedures, OROs and/or officials of public school systems / districts must demonstrate the capability to make prompt decisions on protective actions for students. The decision-making process, including any preplanned strategies for protective actions for that Emergency Classification Level (ECL), must consider the location of students at the time (e.g., whether the students are still at home, en route to school, or at school).

Since other agencies place requirements on hospitals to prepare for contaminated patients, the REP program has no need to evaluate hospitals in the EPZ that need to evacuate, or the facilities that are receiving these evacuees, nor does the ORO have the responsibility to provide training or dosimetry to these hospitals / facilities. Additionally, hospital evacuation plans do not need to be reviewed or tested by the REP program.

PEMA Negotiated Extent-of-Play:

If the scenario has no radiological release, or potential of a radiological release, the decision-making process used to make protective action recommendations can be addressed through an interview.

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

INTENT

This Sub-element id derived from NUREG0654/FEMA-REP-1, which requires that OROs have the means to assess the radiological consequences for the ingestion exposure pathway, relate

them to the appropriate PAGs, and make timely, appropriate PADs to mitigate exposure from the pathway.

During an incident at the NPP, a release of radioactive material may contaminate water supplies and agricultural products in the surrounding areas. Any such contamination would likely occur during the plume phase of the incident and, depending on the nature of the release, could impact the ingestion pathway for weeks to years.

Criterion 2.d.1: Radiological consequences for the ingestion pathway are assessed and appropriate protective action decisions are based on the ORO's planning criteria. (NUREG0654/FMEA-REP-1, A.3; C.1, 4; D.4; J.9, 11)

Assessment / Extent of Play

Assessment of this Demonstration Criterion must be accomplished concurrently with a licensee exercise and may be demonstrated in a biennial or tabletop exercise that would include the use of plant condition transmitted from the licensee.

OROs are expected to take precautionary actions to protect food and water supplies, or to minimize exposure to potentially contaminated water and food, in accordance with their respective plans / procedures. Often OROs initiate such actions based on criteria related to the facility's ECLs. Such actions may include recommendations to place milk animals on stored feed and use protected water supplies.

The ORO must use its procedures to assess the radiological consequences of a release on the food and water supplies, such as the development of a sampling plan. The ORO's assessment must include evaluation of the radiological analysis of representative samples of water, food, and other ingestible substances of local interest from potentially impacted areas; characterization of the releases from the facility; and the extent of areas potentially impacted by the release. During this assessment, OROs must consider use of agricultural and watershed data within the 30-mile EPZ. The radiological impacts on the food and water must then be compared to the appropriate ingestion PAGs contained in the ORO's plans / procedures. The plans / procedures contain PAGs based on specific dose commitment criteria or on criteria as recommended by current Food and Drug Administration (FDA) guidance. Timely and appropriate recommendations must be provided to the OFO decision-makers group for implementation decisions. OROs may also include a comparison of taking or not taking a given action on the resultant ingestion pathway dose commitments.

The ORO must demonstrate timely decisions to minimize radiological impacts from the ingestion pathway, based on the given assessments and other information. Any such decisions must be communicated and, to the extent practical, coordinated with neighboring OROs. These decisions include tracking agricultural products entering and leaving the EPZ. Demonstration of

plans and procedures which use traffic access control points to track agricultural products entering and leaving the EPZ may be conducted through interview.

ORO will use Federal resources, as identified in the Nuclear / Radiological Incident Annexes of the National Response Plan and other resources (e.g., compacts or nuclear insurers), as necessary.

Evaluation of this criterion will take into consideration the level of Federal and other participating resources.

PEMA Negotiated Extent-of-Play:

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

Intent

This sub-element is derived from NUREG0654 / FEMA-REP-1, which requires that OROs have the capability to make decisions on post-plume phase relocation, reentry, and return of the general public. These decisions are essential for protection of the public from direct long-term exposure to deposited radioactive materials from a severe incident at an NPP.

Criterion 2.e.1; Timely post-plume phase relocation, reentry, and return decisions are made and coordinated as appropriate, based on assessments of the radiological conditions and criteria in the ORO's plan and / or procedures. (NUREG0654 / FEMA-REP-1. I-10; J.9; K.3; M.1)

Assessment / Extent of Play

Assessment of the Demonstrated Criterion must be accomplished concurrently with a licensee exercise and may be demonstrated in a biennial or tabletop exercise that would include the use of plant conditions transmitted from the licensee.

Relocation; OROs must demonstrate the capability to estimate integrated dose in contaminated areas and compare these estimates with PAGs; apply decision criteria for relocation of those individuals in the general public who have not been evacuated, but where actual or projected doses are in excess of relocation PAGs; and control access to evacuated and restricted areas. OROs will make decisions for relocating members of the evacuated public who lived in areas that now have residual radiation levels in excess of the PAGs. Determination of areas to be

restricted must be based on factors such as the mix of radionuclides in deposited materials, calculated exposure rates versus the PAGs, and analyses of vegetation and soil field samples.

Reentry: Decisions must be made on location of control points and policies regarding access and exposure control for emergency workers and members of the general public who need to temporarily enter the evacuated area to perform specific tasks or missions.

Examples of control procedures are the assignment of , or checking for, direct reading and permanent record dosimetry for emergency workers; questions regarding an individual's objectives, location expected to be visited, and associated timeframes; availability of maps and plots of radiation exposure rates; and advice on areas to avoid. Control procedures also include monitoring of individuals, vehicles, and equipment; the implementation of decision criteria regarding decontamination; and proper disposition of emergency worker dosimetry and maintenance of emergency worker radiation exposure records. Responsible OROs must demonstrate the capability to develop a strategy for authorized reentry of individuals into the restricted zone(s), based on established decision criteria. OROs must demonstrate the capability to modify those policies for security purposes (e.g., Police patrols), maintenance of essential services (e.g., fire protection and utilities), and other critical functions. They must demonstrate the capability to use decision-making criteria in allowing access to the restricted zone by the public for various reasons, such as to maintain property (e.g., to care for farm animals or secure machinery for storage) or retrieve important possessions. Coordinated policies for access and exposure control must be developed among all agencies with roles to perform in the restricted zone(s). OROs must demonstrate the capability to establish policies for provision of dosimetry to all individuals allowed to reenter the restricted zone(s). The extent to which OROs need to develop policies on reentry will be determined by scenario events.

Return: OROs must demonstrate the capability to implement policies concerning return of members of the public to areas that were evacuated during the plume phase (i.e., permitting populating that were previously evacuated to reoccupy their homes and businesses on an unrestricted basis). OROs must base decisions on environmental data and political boundaries or physical / geological features, which allow identification of the boundaries of areas to which members of the general public may return. Return is permitted to the boundary of the restricted area(s) that is based on the relocation PAG.

Other factors that the ORO must consider in decision-making include conditions that permit cancellation of the ECL and relaxation of associated restrictive measures. OROs must base return recommendations on measurements of radiation from ground deposition. OROs must have the capability to identify services and facilities that require restoration within a few days and to identify the procedures and resources for their restoration. Examples of these services and facilities are medical and social services, utilities, roads, schools, and intermediate-term housing for relocated persons.

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 is derived from NUREG-0654 / FEMA-REP-1, which requires that OROs have the capability to provide for the following: distribution, use, collection, and processing of direct-reading dosimetry and permanent record dosimetry; reading of direct-reading dosimetry by emergency workers at appropriate frequencies; maintaining a radiation dose record for each emergency worker; establishing a decision chain or authorization procedure for emergency workers to incur radiation exposures in excess of the PAGs; and the capability to provide KI for emergency workers, always applying the as low as is reasonably achievable (ALARA) principle as appropriate.

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

Assessment / Extent-of-Play

Assessment of this Demonstration Criterion may be accomplished during a biennial or tabletop exercise. Other means may include drills, seminars or training activities that would fully demonstrate technical proficiency.

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

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

During a plume phase exercise, emergency workers must demonstrate the procedures to be followed when administrative exposure limits and turn-back values are reached. The emergency worker must report accumulated exposures during the exercise as indicated in the plans / procedures. OROs must demonstrate the actions described in the plans / procedures by determining whether to replace the worker, authorize the worker to incur additional exposures, or take other actions. If exercise play does not require emergency workers to seek authorizations for additional exposure, evaluators must interview at least two workers to determine their knowledge of whom to contact in case authorization is needed, and at what exposure levels. Workers may use any available resources (e.g., written procedures and/or coworkers) 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. In such cases, adequate control of exposure can be achieved for all team members using one direct-reading dosimeter worn by the team leader. Emergency workers assigned to low-exposure rate fixed facilities (e.g., EOCs and communications center within the EPZ, reception centers, and counting laboratories) may have individual direct-reading dosimeters or they may be monitored using group dosimetry (i.e., direct-reading dosimeters strategically placed in the work area). Each team member must still have his or her own permanent record dosimetry. Individuals authorized by the ORO to reenter an evacuated area during the plume (emergency) phase, must be limited to the lowest radiological exposure commensurate with completing their missions.

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

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

using KI whether or not the scenario drives the implementation of KI use. This can be accomplished by an interview with the evaluator.

PEMA Negotiated Extent-of-Play:

Radiological briefings will be provided to address exposure limits, procedures to replace personnel 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. OROs should also demonstrate the use of all applicable dosimetry forms. The completion of a "Dosimetry-KI Report Form" will be demonstrated.

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

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. Simulated PRDs with mock serial numbers may be used to simulate issue.

Emergency workers who are assigned to low exposure rate areas, e.g., at 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 KI for each category of emergency worker is as follows:

Category A: 1 PRD, 1 DRD, and 1 unit of KI
Category B: 1 PRD and 1 unit of KI (Area Kit includes 2 DRDs)
Category C: 1 PRD

In Pennsylvania, emergency workers outside of the EPZ do not have turn-back values.

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. In order to demonstrate an understanding of the use of the dosimetry equipment, KI and associated forms; the location need only remove and distribute / issue a maximum of six (6) units of dosimetry from their inventory. Simulation PRDs with mock serial numbers and simulated KI may be issued. The location will demonstrate filling out a minimum of two (2) Dosimetry / KI Report Form.

BRP Field Teams and R3V will not be evaluated during this exercise.

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

INTENT

This Sub-element is derived from NUREG-0654 / FEMA-REP-1, which requires that OROs have the capability to provide KI for institutionalized individuals, and, if in the plans / procedures, to the general public for whom immediate evacuation may not be feasible, very difficult, or significantly delayed. While it is necessary for OROs to have the capability to provide KI to institutionalized individuals, providing KI to the general public is an ORO option and must be reflected as such in ORO plans / procedures. Provisions must include the availability of adequate quantities, storage, and means of distributing KI.

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

Assessment / Extent-of-Play

Assessment of this Demonstration Criterion may be accomplished during a biennial or tabletop exercise. Other means may include drills, seminars or training activities that would fully demonstrate technical proficiency.

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

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

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. Pennsylvania does not distribute KI at reception centers.

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 PRDs or KI since the centers / stations are located outside the EPZ. Simulated PRDs with mock serial numbers may be used to simulate issue (Maximum of 6 issued). KI may be simulated for issue.

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

INTENT

This Sub-element is derived from NUREG-0654 / FEMA-REP-1, which requires that OROs have the capability to implement precautionary and / or protective action decisions, including evacuation and / or sheltering, for all persons with disabilities and access / functional needs. The focus is on those persons with disabilities and access / functional needs that are (or potentially will be) affected by a radiological release from an NPP.

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

Assessment / Extent-of-Play

Assessment of this Demonstration Criterion may be accomplished during a biennial exercise, an actual event, or by means of drills conducted at any time.

Applicable OROs must demonstrate the capability to alert and notify (i.e., provide PARs and emergency information and instructions to) persons with disabilities and access / functional needs, including hospitals / medical facilities, licensed day cares, nursing homes, correctional facilities, and mobility-impaired and transportation-dependent individuals. OROs must

demonstrate the capability to provide for persons with disabilities and access / functional needs in accordance with plans / procedures.

Contact with persons with disabilities and access / functional needs and reception facilities may be actual or simulated, as agreed to in the extent-of-play. Some contacts with transportation providers must be actually contacted, as negotiated in the extent-of-play. All actual and simulated contacts must be logged.

Since other agencies place requirements on hospitals to prepare for contaminated patients, the REP Program has no need to evaluate hospitals in the EPZ that need to evacuate, or the facilities that are receiving these evacuees, nor does the ORO have the responsibility to provide training or dosimetry to these hospitals / facilities. Additionally, hospital evacuation plans do not need to be reviewed or tested by the REP program.

PEMA Negotiated Extent-of-Play:

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

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

Initial contact with special populations and reception facilities will be actual (hospitals, nursing homes and correctional facilities). All subsequent calls will be simulated. Actual contacts (up to two per Risk County) 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 / FEMA-REP-1, J.10.c, d, e, g)

Assessment / Extent-of-Play

Assessment of this Demonstration Criterion may be accomplished during a biennial, or tabletop exercise, an actual event, or by means of drills conducted at any time.

School systems / districts (these include public and private schools, kindergartens, and preschools) must demonstrate the ability to implement precautionary and / or protective action decisions for students. The demonstration must be made as follows: each school system /

district within the 10 mile EPZ must demonstrate implementation of protective actions; at least one school per affected system / district must participate in the demonstration; and canceling the school day, dismissing early, or sheltering in place must 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, appropriate school personnel including decision-making officials (e.g., schools' superintendent / principals and transportation director / bus dispatchers), and at least one bus driver (and the bus driver's escort, if applicable) must be available to demonstrate knowledge of their role(s) in the evacuation of school children. Communications capabilities between school officials and the buses, if required by the plans / procedures, must be verified.

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

If a school facility has emergency plans as a condition of licensing, those plans may be submitted to FEMA review in place of demonstration or interview pursuant to the ORO's plans / procedures as negotiated in the Extent-of-Play Agreement.

Additionally, hospital evacuation plans do not need to be reviewed or tested by the REP program.

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

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 will be logged.

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

INTENT

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

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

Assessment / Extent-of-Play

Assessment of this Demonstration Criterion may be accomplished during a biennial exercise, an actual event, staff assistance visit, or by means of drills conducted at any time.

OROs must demonstrate the capability to select, establish, and staff appropriate traffic and access control points consistent with current conditions and PADs (e.g., evacuating, sheltering, and relocation) in a timely manner. OROs must 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 must demonstrate accurate knowledge of their roles and responsibilities, including verifying emergency worker identification and access authorization to the affected areas, as per the Extent-of-Play Agreement. These capabilities may be demonstrated by actual deployment or by interview, in accordance with the Extent-of-Play Agreement.

In instances where OROs lack authority necessary to control access by certain types of traffic (e.g., rail, water, and air traffic), they must demonstrate the capability to contact the state or Federal agencies that have the needed authority.

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. Reception Centers shall provide a traffic control plan for the location being evaluated.

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

Assessment / Extent-of-Play

Assessment of this Demonstration Criterion may be accomplished during a biennial exercise, an actual event, or by means of drills conducted at any time.

OROs must demonstrate the capability, as required by the scenario, to identify and take appropriate actions concerning impediments to evacuation. In demonstrating this capability, the impediment must remain in place during the evacuation long enough that re-routing of traffic is required and must also result in demonstration of decision-making and coordination with the JIC to communicate the alternate route to evacuees.

When, due to specifics of the scenario or jurisdiction, the impediment cannot be located on an evacuation route, it must be located so as to impact the evacuation. When not possible, actual dispatch of resources need not be physically demonstrated; however, all contact, actual and simulated, must be logged.

PEMA Negotiated Extent-of-Play:

County EOCs will demonstrate the ability to identify and take appropriate actions concerning impediments to evacuation by inject or interview. Actual dispatch of resources to deal with impediments, such as tow trucks, need not be demonstrated; however, simulated contacts will be logged. If the scenario does not lead to evacuation the criteria shall be deemed complete if the ORO can describe to the evaluator the actions they would take to overcome a major traffic impediment during an evacuation and how such actions would be communicated to the public and affected OROs. (Risk Counties only)

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

Intent

This Sub-element is derived from NUREG0654 / FEMA-REP-1, which requires that OROs have the capability to implement protective actions, based on criteria recommended by current FDA guidance, for the ingestion exposure pathway EPZ (i.e., the area within an approximate 50-mile radius of the NPP). This Sub-element focuses on those actions required for implementation of protective actions.

Criterion 3.e.1: The ORO demonstrates the availability and appropriate use of adequate information regarding water, food supplies, milk, and agricultural production within the ingestion exposure pathway emergency planning zone for implementation of protective actions. (NUGEG0654 / FEMA-REP-1, A.3; C.1, 4; J.11

Assessment / Extent of Play

Assessment of this Demonstration Criterion may be accomplished during a biennial exercise, and actual event, or by means of drills conducted at any time.

Applicable OROs must demonstrate the capability to secure and use current information on the location of dairy farms, meat and poultry producers, fisheries, fruit growers, vegetable growers, grain producers, food processing plants, and water supply intake points to implement protective actions within the EPZ. OROs use Federal resources as identified in the NRF Nuclear / Radiological Incident Annex, and other resources (e.g., compacts, nuclear insurers), if available. Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

PEMA Negotiated Extent-of-Play:

This sub-element will not be evaluated during this exercise

Criterion 3.e.2; Appropriate measures, strategies, and preprinted instructional materials are developed for implementing protective action decisions for contaminated water, food products, milk, and agricultural production. (NUREG0654 / FEMA-REP-1, G.1, J.9, 11)

Assessment / Extent of Play

Assessment of this Demonstration Criterion may be accomplished during a biennial exercise, and actual event, or by means of drills conducted at any time.

OROs must demonstrate the development of measures and strategies for implementation of ingestion exposure pathway EPZ protective actions by formulating protective action information for the general public and food producers and processors. Demonstration of this criterion includes either pre-distributed public information material in the ingestion exposure pathway EPZ or the capability for rapid reproduction and distribution of appropriate reproduction-ready information and instruction to pre-determined individuals and businesses.

OROs must also demonstrate the capability to control, restrict, or prevent distribution of contaminated food by commercial sectors. Exercise play must include demonstration of communication and coordination among organizations to implement protective actions. Field play of implementation activities may be simulated. For example, communications and coordination with agencies responsible for enforcing food controls within the ingestion exposure pathway EPZ must be demonstrated, but actual communications with food producers and processors may be simulated.

PEMA Negotiated Extent-of-Play:

This sub-element will not be evaluated during this exercise

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

Intent

This Sub-element is derived from NUREG0654 / FEMA-REP-1, which requires that OROs have the capability to implement plans, procedures, and decisions for post-plume phase relocation, reentry, and return. Implementation of these decisions is essential for protecting the public from direct long-term exposure to deposited radioactive materials from a severe incident at a commercial NPP.

Criterion 3.f.1: Decisions regarding controlled reentry, relocation, and return of individuals during the post-plume phase are coordinated with appropriate organizations and implemented. (NUREG0654 / FEMA-REP-1, E.7; J.10j; J.12; K.5.b; M.1, 3)

Assessment / Extent of Play

Assessment of this Demonstration Criterion may be accomplished during a biennial, or tabletop exercise, or by means of drills conducted at any time.

Relocation; OROs must demonstrate the capability to coordinate and implement decisions concerning relocation of individuals located in radiologically contaminated areas who were not previously evacuated. Such individuals must be relocated to an area(s) where radiological

contamination will not expose the general public to doses that exceed the relocation PAGs. OROs must also demonstrate the capability to provide for short- or long-term relocation of evacuees who lived in an area(s) that has residual radiation levels above the (first-, second-, and 50-year) PAGs.

Areas of consideration must include the capability of OROs to communicate with other OROs regarding timing of actions, notification of the population of procedures for relocation, and notification of, and advice for, evacuated individuals who will be converted to relocation status in situations where they will not be able to return to their home due to high levels of contamination. OROs must also demonstrate the capability to communicate instructions to the public regarding relocation decisions and intermediate-term housing for relocated persons.

Reentry; OROs must demonstrate the capability to control reentry and exit of individuals who are authorized by the ORO to temporarily reenter the restricted area during the post-plume (i.e., intermediate or late) phase to protect them from unnecessary radiation exposure. OROs must also demonstrate the capability to control exit of vehicles and other equipment to control the spread of contamination outside the restricted area(s). Individuals without specific radiological response missions, such as farmers for animal care, essential utility service personnel, or other members of the public who must reenter the evacuated area during the post-emergency phase must be limited to the lowest radiological exposure commensurate with completing their missions. Monitoring and decontamination facilities will be established as appropriate.

Examples of control procedures are: (1) assignment of, or checking for, direct-reading and permanent record dosimetry for emergency workers; (2) questions regarding the individuals' objective(s), location(s) expected to be visited, and associated timeframes; (3) maps and plots of radiation exposure rates; (4) advice on areas to avoid; (5) procedures for exit, including monitoring of individuals, vehicles, and equipment; (6) decision criteria regarding contamination; (7) proper disposition of emergency worker dosimetry; and (8) maintenance of emergency worker radiation exposure records.

Return: OROs must demonstrate the capability to implement policies concerning return of members of the public to areas that were evacuated during the plume phase. OROs must demonstrate the capability to identify and prioritize services and facilities that require restoration within a few days, and to identify procedures and resources for their restoration. Examples of these services and facilities are medical and social services, utilities, roads, and schools.

Communication among OROs for relocation, reentry, and return may be simulated. All simulated or actual contacts must be documented. These discussions may be accomplished in a group setting.

OROs will use Federal resources as identified in the NRF Nuclear / Radiological Incident Annex, and other resources (e.g., compacts or nuclear insurers), as necessary, if available.

Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

PEMA Negotiated Extent-of-Play:

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 is derived from NUREG-0654 / FEMA-REP-1, which requires that OROs have the capability to deploy FMTs with the equipment, methods, and expertise necessary to determine the location of airborne radiation and particulate deposition on the ground from an airborne plume. In addition, NUREG-0654 / FEMA-REP-1 indicates that OROs must have the capability to use FMTs within the plume exposure pathway EPZ to detect airborne radioiodine in the presence of noble gases and radioactive particulate material in the airborne plume. In an incident at a NPP, the possible release of radioactive material may pose a risk to the nearby population and environment. Although incident assessment methods are available to project the extent and magnitude of a release, these methods are subject to large uncertainties. During an incident, it is important to collect field radiological data to help characterize any radiological release. Adequate equipment and procedures are essential to such field measurement efforts.

Criterion 4.a.1: [RESERVED]

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

Assessment / Extent-of-Play

Assessment of this Demonstration Criterion may be accomplished during a biennial, or tabletop exercise. Other means may include drills that would fully demonstrate technical proficiency.

Responsible OROs must demonstrate the capability to brief FMTs on predicted plume location and direction, plume travel speed, and exposure control procedures before deployment. During an HAB incident, the Field Team management must keep the Incident Command informed of

FMTs' activities and location. Coordination with FMTs and field monitoring may be demonstrated as out-of-sequence demonstrations, as negotiated in the Extent-of-Play Agreement.

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

If the responsibility for obtaining peak measurements in the plume has been accepted by licensee FMTs, with concurrence from OROs, there is no requirement for these measurements to be repeated by ORO monitoring teams. If the licensee FMTs 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 FMTs (licensee, Federal, and ORO) is essential.

OROs will use Federal resources as identified in the NRF Nuclear / Radiological Incident Annex and other resources (e.g., compacts or the licensee), as necessary. Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

PEMA Negotiated Extent-of-Play:

Field Team Control will be performed 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 deployed 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 teams dose ALARA. BRP Field Teams and R3V will NOT be evaluated for this exercise.

In the event the scenario has no radiological release, a report of background radiation by the FMT will signify successful demonstration of the criterion.

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

Assessment / Extent-of-Play
Assessment of this Demonstration Criterion may be accomplished during a biennial exercise. Other means may include drills, seminars or training activities that would fully demonstrate technical proficiency.

Two or more FMTs must demonstrate the capability to make and report measurements of ambient radiation to the field team coordinator, dose assessment team, or other appropriate authority. FMTs must also demonstrate the capability to obtain an air sample for measurement of airborne radioiodine and particulates, and to provide the appropriate authority with field data pertaining to measurement. If samples have radioactivity significantly above background, the authority must consider the need for expedited laboratory analyses of these samples. Coordination concerning transfer of samples, including a chain-of-custody form(s), to a radiological laboratory(ies) must be demonstrated.

OROs must share data in a timely manner with all other appropriate OROs. All methodology, including contamination control, instrumentation, preparation of samples, and a chain-of-custody form(s) for transfer to a laboratory(ies), will be in accordance with the ORO's plans / procedures.

OROs must use Federal resources as identified in the NRF Nuclear / Radiological Incident Annex and other resources (e.g., compacts or the licensee). Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

PEMA Negotiated Extent-of-Play:

Measurements will be made by Department of Environmental Protection (DEP) Bureau of Radiological Protection (BRP), in accordance with State Radiological Annex E, Appendix 6 and the BRP Standard Implementing Procedures (IPs). Two mobile monitoring teams from BRP will demonstrate ambient radiation monitoring and radioiodine and particulate sampling. Field Teams will be equipped with appropriate dosimetry and KI. Both teams will participate but not be evaluated by FEMA. Each team will be directed to monitoring location and perform actual radiation measurements at each location. Measurements may consist of truck installed radiation monitor or hand-held radiation instruments. The team will explain by interview the procedures they follow for air sampling. Teams will take air samples as directed at various locations, if conditions are appropriate for radioiodine sampling and relay information to the R3V. In place of silver zeolite cartridges, charcoal cartridges will be used for the exercise. All measurements will be forwarded to the R3V immediately upon obtaining data. BRP Field Teams and R3V will NOT be evaluated for this exercise.

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 is derived from NUREG-0654 / FEMA-REP-1, which requires that OROs have the capability to provide prompt instructions to the public within the plume exposure pathway EPZ. Specific provisions addressed in this Sub-element are derived from the Guide for the Evaluation of Alert and Notification Systems for Nuclear Power Plants, FEMA-REP-10 (November 1985).

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

Assessment / Extent-of-Play

Assessment of this Demonstration Criterion may be accomplished during a full-scale or functional exercise, drills, or operational testing of equipment that would fully demonstrate capability.

Responsible OROs must demonstrate the capability to sequentially provide an alert signal followed by an initial instructional message to populated areas (permanent resident and transient) throughout the 10-mile plume EPZ. Following the decision to activate the alert and notification system, OROs must complete system activation for primary alert / notification and disseminate the information / instructions in a timely manner. For exercise purposes, timely is defined as with a sense of urgency and without undue delay. If message dissemination is 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 must be fully demonstrated as they would in an actual emergency up to the point of transmission. Broadcast of the message(s) or test message(s) is not required. The procedures must be demonstrated up to the point of actual activation. The alert

signal activation should be simulated, not performed. Evaluations of EAS broadcast stations may also be accomplished through SAVs.

The capability of the primary notification system to broadcast an instructional message on a 24-hour basis must be verified during an interview with appropriate personnel from the primary notification system, including verification of provisions for backup power or an alternate station.

The initial message must include at a minimum the following elements:

- Identification of the ORO responsible and the official with authority for providing the alert signal and instructional message;
- Identification of the commercial NPP and a statement that an emergency exists there;
- Reference to REP-specific emergency information (e.g., brochures, calendars, and/or information in telephone books) for use by the general public during an emergency;
- A closing statement asking that the affected and potentially affected population stay tuned for additional information, or that the population tune to another station for additional information. If route alerting is demonstrated as a primary method of alert and notification, it must be done in accordance with the ORO's plans / procedures and the Extent-of-Play Agreement. OROs must demonstrate the capability to accomplish the primary route alerting in a timely manner (not subject to specific time requirements). At least one route needs to be demonstrated and evaluated. The selected route(s) must vary from exercise to exercise. However, the most difficult route(s) must be demonstrated no less than once every 8 years. All alert and notification activities along the route(s) must be simulated (that is, the message that would actually be used is read for the evaluator, but not actually broadcast) as negotiated in the extent-of-play. Actual testing of the mobile public address system will be conducted at an agreed-upon location.

OROs may demonstrate any means of primary alert and notification included in their plans / procedures as negotiated 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 (September 23, 2010 and revised on November 2, 2011). The SEOC (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 SEOC and the affected counties with respect to the Alert and Notification System (ANS) process as to when the sirens and EAS messages will occur. 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 Subsequent News Bulletins or 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, by interview, route alerting of the hearing impaired residents within their jurisdiction. Hearing impaired notification teams will not be deployed.

Criterion 5.a.2: [RESERVED]

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

Assessment / Extent-of-Play

Assessment of this Demonstration Criterion may be accomplished during a biennial exercise, drills, or operational testing of equipment that would fully demonstrate capability.

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 during the exercise, OROs must demonstrate backup means of alert and notification. Backup means of alert and notification will differ from facility to facility.

Backup alert and notification procedures that would be implemented in multiple stages must be structured such that the population closest to the plant (e.g., within 2 miles) is alerted and notified first. The populations farther away and downwind of any potential radiological release would be covered sequentially (e.g., 2 to 5 miles, followed by downwind 5 to 10 miles, and finally the remaining population as directed by authorities). Topography, population density, existing ORO resources, and timing will be considered in judging the acceptability of backup means of alert and notification.

Although circumstances may not allow this for all situations, FEMA and the NRC recommend that OROs and operators attempt to establish backup means that will reach those in the plume exposure EPZ within a reasonable time of failure of the primary alert and notification system,

with a recommended goal of 45 minutes. The backup alert message must, at a minimum, include: (1) a statement that an emergency exists at the plant; and (2) instructions regarding where to obtain additional information.

If backup route alerting is demonstrated, only one route needs to be selected and demonstrated. All alert and notification activities along the route(s) must be simulated (that is, the message that would actually be used is read for the evaluator, but not actually broadcast), as negotiated in the extent of play. Actual testing of the mobile public address system will be conducted at an agreed-upon location.

OROs may demonstrate any means of backup alert and notification included in their plans/procedures as negotiated in the Extent-of-Play Agreement.

PEMA Negotiated Extent-of-Play:

Plans specify that route alerting is used as a back up to the sirens. County Liaisons will provide an inject to the risk counties that a siren has failed. The county will demonstrate contacting one municipal EOC in regards to the failed siren in that municipality. The municipal EOC will then dispatch a route alert team to cover one route alert sector affected by the failed siren. All other routes will be simulated. Route Alert Teams should finish their route in about 45 minutes from time of siren failure.

OROs may utilize IPAWs or other public alerting systems in accordance with their plans but use of such systems will not negate the need to provide for demonstration of route alerting by the ORO.

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

INTENT

This Sub-element is derived from NUREG-0654 / FEMA-REP-1, which requires that OROs have the capability to disseminate appropriate emergency information and instructions, including any recommended protective actions, to the public. In addition, NUREG-0654 / FEMA-REP-1 requires OROs to ensure that the capability exists for providing information to the media. This includes the availability of a physical location for use by the media during an emergency. NUREG-0654 / FEMA-REP-1 also provides that a system must be available for dealing with rumors. This system will hereafter be known as the "public inquiry hotline".

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

Assessment / Extent-of-Play

Assessment of this Demonstration Criterion may be accomplished during a full-scale or functional exercise, or drills.

The responsible ORO personnel / representatives must demonstrate actions to provide emergency information and instructions to the public and media in a timely manner following the initial alert and notification (not subject to specific time requirements). For exercise purposes, timely is defined as with a sense of urgency and without undue delay. If message dissemination is 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.

Message elements: The ORO must ensure that emergency information and instructions are consistent with PADs made by appropriate officials. The emergency information must contain all necessary and applicable instructions (e.g., evacuation instructions, evacuation routes, reception center locations, what to take when evacuating, shelter-in-place instructions, information concerning protective actions for schools and persons with disabilities and access / functional needs, and public inquiry hotline telephone number) to assist the public in carrying out the PADs provided. The ORO must also be prepared to disclose and explain the ECL of the incident. At a minimum, this information must be included in media briefings and/or media releases. OROs must demonstrate the capability to use language that is clear and understandable to the public within both the plume and ingestion exposure pathway EPZs. This includes demonstration of the capability to use familiar landmarks and boundaries to describe protective action areas.

The emergency information must be all-inclusive by including the four items specified under exercise Demonstration Criterion 5.a.1 and previously identified protective action areas that are still valid, as well as new areas. The OROs must 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 must demonstrate the capability to ensure that current emergency information is repeated at pre-established intervals in accordance with the plans / procedures. OROs must demonstrate the capability to develop emergency information in a non-English language when required by the plans / procedures.

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

Media information: OROs must 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 incident warrants. The OROs must demonstrate the capability to respond appropriately to inquiries from the news media. All information presented in media briefings and releases must be consistent with PADs and other emergency information provided to the public. Copies of pertinent emergency information (e.g., EAS messages and media releases) and media information kits must be available for dissemination to the media.

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

HAB considerations: The dissemination of information dealing with specific aspects of NPP security capabilities, actual or perceived adversarial (terrorist) force or threat, and tactical law enforcement response must be coordinated / communicated with appropriate security authorities, (e.g., law enforcement and NPP security agencies) in accordance with ORO plans / procedures.

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. One media briefing will be demonstrated in each risk county.

Risk 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 to include follow-up message development, distributions and/or briefings.

EVALUATION AREA 6

Support Operation / Facilities

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

INTENT

This Sub-element is derived from NUREG-0654 / FEMA-REP-1, which requires that OROs have the capability to implement radiological monitoring and decontamination of evacuees,

while minimizing contamination of the facility. OROs must also have the capability to identify and register evacuees at reception centers.

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

Assessment / Extent-of-Play

Assessment of this Demonstration Criterion may be accomplished during a full-scale or functional exercise, drills, or SAV.

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

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

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

Monitoring activities shall not be simulated. Monitoring personnel must explain use of trigger / action levels for determining the need for decontamination. They must also explain the

procedures for referring any evacuees who cannot be adequately decontaminated for assessment and follow-up in accordance with the ORO's plans / procedures.

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

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

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

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

PEMA Negotiated Extent-of-Play:

Radiological monitoring demonstration sites should possess a roster of the monitoring personnel, as well as, providing a means by which mass care or others could verify that the person has been monitored and has been deemed uncontaminated. The Radiological Monitoring station(s) should be prepared to monitor 20 percent of the risk population within a 12-hour period as allocated to that location. In some cases Reception Centers, Monitoring and Decontaminations Centers, and/or Mass Care centers may be collocated.

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 unless collocated with mass care and monitoring / decontamination. As negotiated with FEMA, this criterion will be demonstrated but not be evaluated because registration is not done at the reception center.

One mass care center and one mass care monitoring / decontamination center will be demonstrated per support county during the out-of-sequence window. The support counties will provide space at designated mass care centers or reception centers for operation of monitoring / decontamination centers. Schematics of these monitoring / decontamination centers will be available to show the organization within the facility and space management for monitoring and decontamination. Procedures will be demonstrated to evidence the separation of contaminated and non-contaminated (clean) individuals.

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 but sources may be used by operators to verify proper equipment calibration. Note: If portal monitors are used, the Portal Monitor Extent-of-Play described below shall be used.

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.

Monitoring / decontamination centers are not issued DRDs or KI since the centers and stations are outside the EPZ. Category "C" Dosimetry applies. Permanent Record Dosimeters (PRD's) may be simulated.

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.

Participants should be able to describe how vehicles are identified for radiological screening and plans or layouts should show the locations and movements of vehicles.

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.

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.

PEMA guidance shall apply. Note that most Portal Monitors are verified to be calibrated by an operator passing through the Portal Monitor with a radioactive source at head, mid, and ankle heights. For locations utilizing multiple portal monitors only one working portal monitor needs to be demonstrated.

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

INTENT

This Sub-element is derived from NUREG-0654 / FEMA-REP-1, which requires that OROs have the capability to implement radiological monitoring and decontamination of emergency workers and their equipment, inclusive of vehicles.

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

Assessment / Extent-of-Play

Assessment of this Demonstration Criterion may be accomplished during a full-scale or functional exercise, drills, or SAV.

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

Specific attention must be given to equipment, including any vehicles that were in contact with contamination. The monitoring staff must demonstrate the capability to make decisions on the need for decontamination of personnel, equipment, and vehicles based on trigger / action levels and procedures stated in the ORO plans / procedures. Monitoring of emergency workers does not have to meet the 12-hour requirement. However, appropriate monitoring procedures must be

demonstrated for a minimum of two emergency workers and their equipment and vehicles. Before using monitoring instrument(s), the monitor(s) must demonstrate the process of checking the instrument(s) for proper operation.

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

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

Monitoring activities shall not be simulated. Monitoring personnel must explain use of trigger / action levels for determining the need for decontamination. They must also explain the procedures for referring any emergency workers who cannot be adequately decontaminated for assessment and follow-up in accordance with the ORO's plans / procedures.

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

PEMA Negotiated Extent-of-Play:

At the emergency worker monitoring / decontamination stations schematics of these monitoring / decontamination stations will be available to show organization and space management. 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. If portal monitors are used, the Portal Monitor Extent-of-Play described below shall be used.

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. 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/or equipment that cannot be decontaminated will be simulated and conducted by interview. Water will NOT be used.

Radiation readings / contamination data for the emergency worker 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.

Portal Monitor Use: Risk and Support counties may, during this exercise, utilize portal monitors to monitor simulated 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 guidance shall apply. Note that most Portal Monitors are verified to be calibrated by an operator passing through the Portal Monitor with a radioactive source at head, mid, and ankle heights. For locations utilizing multiple portal monitors only one working portal monitor needs to be demonstrated.

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. Permanent Record Dosimeters (PRD's) may be simulated. 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.

Sub-element 6.c - Temporary Care of Evacuees

INTENT

This Sub-element is derived from NUREG-0654 / FEMA-REP-1, which requires OROs to have the capability to establish relocation centers in host / support jurisdictions. The American Red Cross normally provides congregate care in support of OROs under existing letters of agreement.

Criterion 6.c.1: Managers of congregate care facilities demonstrate that the centers have resources to provide services and accommodations consistent with American Red Cross

planning guidelines. Managers demonstrate the procedures to assure that evacuees have been monitored for contamination and have been decontaminated as appropriate prior to entering congregate care facilities. (NUREG-0654 / FEMA-REP-1, J.10.h, J.12)

Assessment / Extent-of-Play

Assessment of this Demonstration Criterion may be accomplished during a full-scale or functional exercise, drills, or SAV.

The evaluator must conduct a walk-through of the center to determine, through observation and inquiries, that the services and accommodations are consistent with applicable guidance.

For planning purposes, OROs must plan for a sufficient number of congregate care centers in host / support jurisdictions based on their all-hazard sheltering experience and what is historically relevant for that particular area. In this simulation, it is not necessary to set up operations as they would be in an actual emergency. Alternatively, capabilities may be demonstrated by setting up stations for various services and providing those services to simulated evacuees. Given the substantial differences between demonstration and simulation of this criterion, exercise demonstration expectations must be clearly specified in Extent-of-Play Agreements.

Congregate care staff must also demonstrate the capability to ensure that evacuees, service animals, and vehicles have been monitored for contamination, decontaminated as appropriate, and registered before entering the facility.

Individuals arriving at congregate care facilities must have means (e.g., hand stamp, sticker, bracelet, form, etc.) indicating that they, and their service animals and vehicles, where applicable, have been monitored, cleared, and found to have no contamination or contamination below the trigger / action level.

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

However, those individuals who are found to be contaminated and are then decontaminated will have their vehicles monitored and decontaminated (if applicable) and does need confirmation that their vehicle is free from contamination prior to entering the congregate care areas. This capability may be determined through an interview process.

If operations at the center are demonstrated, material that would be difficult or expensive to transport (e.g., cots, blankets, sundries, and large-scale food supplies) need not be physically

available at the facility(ies). However, availability of such items must be verified by providing the evaluator a list of sources with locations and estimates of quantities.

PEMA Negotiated Extent-of-Play:

Each of the risk or support counties with mass care centers will demonstrate the operation of one mass care center during the out-of-sequence window. Floor plans with flow diagrams of the mass care centers will be available to show organization within the facility and space management during a real emergency. Mass care center locations are listed in the demonstration tables "Demonstration of Mass Care Centers (Attachment A, Section I.B.4)".

Personnel, at a minimum, will consist of one manager and one assistant for each mass care center opened during the out-of-sequence window. The evaluator will expect to see sources and quantities of equipment and supplies, as well as, a staffing chart by job title for 24-hour staffing. 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.

AMERICAN RED CROSS SUPPORT COUNTY CHAPTERS

For Lancaster and York Counties:
American Red Cross of Central Pennsylvania
1804 North Sixth Street
Harrisburg, Pennsylvania 17102
Chris Weidenhammer, Regional Disaster Program Officer, 717-234-3101
Chris.Weidenhammer@redcross.org

For Chester County:
American Red Cross of Southeastern Pennsylvania
23rd & Chestnut Streets
Philadelphia, Pennsylvania 19103
Leo Pratte, Regional Disaster Program Officer, 215-299-4822
Leo.Pratte@redcross.org

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

INTENT

This Sub-element is derived from NUREG-0654 / FEMA-REP-1, which requires that OROs have the capability to transport contaminated injured individuals to medical facilities with the capability to provide medical services.

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

Assessment / Extent-of-Play

Assessment of this Demonstration Criterion may be accomplished during a biennial exercise, an actual event, or drills. FEMA has determined that these capabilities have been enhanced and consistently demonstrated as adequate; therefore, offsite medical services drills need only be evaluated biennially. FEMA will, at the request of the involved ORO, continue to evaluate the drills on an annual basis. If more than two medical facilities and transportation providers are designated as primary or backup, they are also evaluated biennially.

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

OROs must demonstrate the capability to transport contaminated injured individuals to medical facilities.

An ambulance must be used for response to the victim. However, to avoid taking an ambulance out of service for an extended time, OROs may use any vehicle (e.g., car, truck, or van) to transport the victim to the medical facility. It is allowable for an ambulance to demonstrate up to the point of departure for the medical facility and then have a non-specialized vehicle transport the "victim(s)" to the medical facility. This option is used in areas where removing an ambulance from service to drive a great distance (over an hour) for a drill would not be in the best interests of the community.

Normal communications between the ambulance / dispatcher and the receiving medical facility must be demonstrated. If a substitute vehicle is used for transport to the medical facility, this communication must occur before releasing the ambulance from the drill. This communication would include reporting radiation monitoring results, if available. In addition, the ambulance crew must 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 before transport or en route, or may be deferred to the medical facility. Contaminated injured individuals transported to medical facilities are monitored as soon as possible to assure that everyone (ambulance and medical facility) is aware of the medical and radiological status of the individual(s). However, if an ambulance defers monitoring to the medical facility, then the ambulance crew presumes that the patient(s) is contaminated and demonstrate appropriate contamination controls until the patient(s) is monitored. Before using monitoring instruments, the monitor(s) must demonstrate the process of checking the instrument(s) for proper operation. All monitoring activities must be completed as they would be in an actual emergency. Appropriate contamination control measures must be demonstrated before and during transport and at the receiving medical facility.

The medical facility must demonstrate the capability to activate and set up a radiological emergency area for treatment. Medical facilities are expected to have at least one trained physician and one trained nurse to perform and supervise treatment of contaminated injured individuals. Equipment and supplies must be available for treatment of contaminated injured individuals.

The medical facility must demonstrate the capability to make decisions on the need for decontamination of the individual, follow appropriate decontamination procedures, and maintain records of all survey measurements and samples taken. All procedures for collection and analysis of samples and decontamination of the individual must be demonstrated or described to the evaluator. Waste water from decontamination operations must be handled according to facility plans / procedures.

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

PEMA Negotiated Extent-of-Play:

This sub-element evaluated at Ephrata Community Hospital on April 23, 2015, York Hospital on May 28, 2015, and at Brandywine Hospital on August 11, 2015

ATTACHMENT A – DEMONSTRATION TABLES

Peach Bottom Atomic Power Station 2016 Extent-of-Play Demonstration Tables

I. Plume Phase Exercise

A. Activities – April 27, 2016 beginning after 4 p.m.

1. County EOCs

Time: Per Exercise Scenario

DEMONSTRATION FOR EOC MOBILIZATION FOR COUNTIES
Chester
Lancaster
York

2. Municipal EOCs

Time: Per Exercise Scenario

DEMONSTRATION FOR EOC MOBILIZATION FOR MUNICIPALITIES	
RISK COUNTY	**MUNICIPALITY**
Chester	**West Nottingham Township**
Lancaster	Drumore Township
	East Drumore Twp / **Providence Twp** / Quarryville Borough
	Fulton Township
	Little Britain Township
	Martic Township
York	***Delta / Peach Bottom Townships❶**
	*Fawn Grove Twp / Fawn Borough
	Lower Chanceford Township

* Joint EOC
❶ - Location requires Base Line Evaluation

3. Back-up Route Alerting

One back-up route alerting demonstration by one municipality in each risk county (During scenario Exercise)

Back-up Route Alerting	
COUNTY	**MUNCIPALITY**
Chester	**West Nottingham Township**
Lancaster	**Martic Township**
York	**Lower Chanceford Township**

4. Municipal / Region Police Forces

a. 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.

b. Municipal and county staffs will be prepared to brief the FEMA evaluator on actions to be taken should there be an impediment to evacuation on a designated route. This will be demonstrated as part of the municipal or county demonstrations.

These municipal / regional police forces are (by county): N/A

Chester	Lancaster	York
N/A	N/A	N/A

B. Out-of-Sequence Activities

1. School Districts

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

Time: Out-of-Sequence

County	School District	Date / Time
Lancaster	Penn Manor	March 7 - 9 AM
Lancaster	Solanco	March 7 - 1 PM
Chester	Oxford	March 8 – 9 AM
York	Red Lion	March 9 – 9 AM
York	South Eastern	March 9 – 1 PM

Schools and School Districts			
COUNTY	**SCHOOL DISTRICT**	**SCHOOLS (approx. 1/3rd evaluated)**	**Evaluated**
Chester	Oxford Area (5)	1. Jordan Bank / Elementary School *	2008/14
		2. Nottingham Elementary School *	2008/14
		3. Elk Ridge School *	2002/10
		4. Penn's Grove Middle School *	2006/12
		5. **Oxford Area HS ***	2010/**16**
Lancaster	Penn Manor (3)	1. Martic Elementary	2006/12
		2. Penn Manor High School *	2008/14
		3. **Marticville Middle School ***	2010/**16**
	Solanco (6)	1. **Solanco High School**	2010/**16**
		2. Swift Middle School	2008/14
		3. Smith Middle School	2006/12
		4. Quarryville Elementary School	2008/14
		5. **Clermont Elementary School**	2010/**16**
		6. **Providence Elementary School ***	2010/**16**
York	South Eastern SD (5)	1. **Fawn Elementary**	2010/**16**
		2. Delta / Peach Bottom Elementary	2006/12
		3. **SE Middle School (was East)**	2010/**16**
		4. SE Intermediate School (was Middle West)	2008/14
		5. Kennard Dale High School	2008/14
	Red Lion (4)	1. **Red Lion Sr High ***	2010/**16**
		2. Red Lion Jr High *	2008/14
		3. Clearview Elementary *	2006/12
		4. Larry J. Macaluso Elementary *	NEW/2012
		5. Pleasant View Elementary*	NEW/14
		6. **Windsor Manor Elementary***	**NEW/16**

Asterisks (*) items indicate buildings not in EPZ – students may live in the EPZ

2. Traffic and Access Control Points

a. PSP from all three county troop locations will be briefed at the PSP Lancaster Barracks, 2099 Lincoln Highway East Lancaster, Pennsylvania. Members 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 9:30 a.m. – 12:00 noon on March 16, 2016.

3. Reception Centers

Reception Centers Locations None		
COUNTY	**LOCATION**	**EVALUATED**
Chester (1) *	Octorara Middle School	2006/10
Lancaster	Lancaster County Career & Technology Center	2006/12
York (2)	Red Lion Sr. High School Southern School Complex MS	2006/12 2011 (TMI)

NOTE: All counties have requested exemption from demonstration for the 2016 exercise.

The asterisks (*) indicate monitoring / decontamination center activities at the respective reception centers.

4. Mass Care Centers

Mass Care Center Locations March 7, 2016 – 7:00 p.m. to 9:30 p.m.		
COUNTY	**LOCATION**	**EVALUATED**
Chester (1)	Octorara High School	2010
Lancaster (3)	*Penn Manor High School *Manheim Township School Complex: Manheim Township MS Manheim Township HS ***Lampeter Strasburg School Complex:** Lampeter Strasburg High School Lampeter Strasburg Martin Mylin Middle School Lampeter Strasburg Hans Herr Elementary School Mass Care overflow capacity facilities include:	2006/12 2007/11 (TMI) 2010/**16**

Mass Care Center Locations March 7, 2016 – 7:00 p.m. to 9:30 p.m.		
COUNTY	**LOCATION**	**EVALUATED**
	Hempfield Sr. High School	2013 (TMI)
	Franklin & Marshall College	Walk-Down -3/18
	Manor Middle School	Walk-Down -3/18
	Conestoga Valley HS	2011 (TMI)
	Conestoga Valley MS	2011 (TMI)
	Garden Spot High & Middle School Complex	Walk-Down -3/18
	Warwick HS	2011 (TMI)
	Warwick MS	2011 (TMI)
	Cocalico HS	2011 (TMI)
	Cocalico MS	2011 (TMI)
York (2)	*Red Lion School Complex:	2006/12
	Red Lion Sr High School	
	Red Lion Jr High School	
	*Southern School Complex:	2005/11 (TMI)
	Southern Middle School	
	Susquehannock High School	
	Mass Care overflow capacity facilities:	
	Spring Grove High & Intermediate School Complex	Walk-Down -2012
	Spring Grove Middle School	Walk-Down -2012
	York County 4-H (people w/pets)	Walk-Down -2012
	Dallastown High & Middle School Complex	Walk-Down -2012
	Additional Mass Care overflow capacity facilities:	
	Southwestern High & Markle Intermediate School Complex	Walk-Down -2012
	Red Lion Fire Company	Walk-Down -2012

NOTE: Chester and York counties have asked for exemption for the 2016 exercise

The asterisks (*) indicate monitoring / decontamination center activities at their mass care centers.

5. Emergency Worker Monitoring / Decontamination Station

Emergency Worker Monitoring / Decontamination Station March 7, 2016 – 7:00 p.m. to 9:30 p.m.		
COUNTY	**LOCATION**	**EVALUATED**

Chester (1)	Penns Grove Middle School	2006/12
Lancaster (1)	**Lampeter Strasburg Field House**	2012/**16**
York (1)	Brogue Ambulance Company	2006/12

Emergency worker monitoring / decontamination station(s) for the risk county.

NOTE: Chester and York counties have asked for exemption for the 2016 exercise

STATE OF MARYLAND

METHOD OF OPERATION AND EXTENT OF PLAY

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

ASSESSMENT AREA 1: EMERGENCY OPERATIONS MANAGEMENT

Sub-element 1.a – Mobilization

Intent

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to alert, notify, and mobilize emergency personnel, and 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/ FEMA-REP-1, A.1.a, e; A.3, 4; C.1,4, 6; D.4; E.1, 2; H.3, 4)

Assessment/Extent of Play

Assessment of this Demonstration Criterion may be accomplished during a full-scale or functional exercise, an actual event, or by means of drills conducted at any time.

Responsible OROs must demonstrate the capability to receive notification of an incident from the licensee; verify the notification; and contact, alert, and mobilize key emergency personnel in a timely manner and demonstrate the ability to maintain and staff 24-hour operations. Twenty-four-hour operations can be demonstrated during the exercise via rosters or shift changes or otherwise in an actual activation. Local responders must demonstrate the ability to receive and/or initiate notification to the licensees or other respective emergency management organizations of an incident in a timely manner, when they receive information from the licensee or alternate sources. Responsible OROs must demonstrate the activation of facilities for immediate use by mobilized personnel upon their arrival. Activation of facilities and staff, including those associated with the Incident Command System, must be completed in accordance with ORO plans/procedures. The location and contact information for facilities included in the incident command must be available to all appropriate responding agencies and the NPP after these facilities have been activated.

The REP program does not evaluate Incident Command System tactical operations, only coordination among the incident command, the utility, and all appropriate OROs, pursuant to plans/procedures.

Pre-positioning of emergency personnel is appropriate, in accordance with the Extent-of-Play Agreement, at those facilities located beyond a normal commuting distance from the individual's duty location or residence. This includes the staggered release of resources from an assembly area. Additionally, pre-positioning of staff for out-of-sequence demonstrations may be used in accordance with the Extent-of-Play Agreement.

Initial law enforcement, fire service, HAZMAT, and emergency medical response to the NPP site may impact the ability to staff REP functions. The ability to identify and request additional resources or identify compensatory measures must be demonstrated. Exercises must also address

The role of mutual aid in the incident, as appropriate. An integral part of the response to an HAB scenario at an NPP may also be within the auspices of the Federal Government (e.g., FBI, NRC, or DHS). Protocols for requesting Federal, state, local, and tribal law enforcement support must be demonstrated, as appropriate. Any resources identified through LOA/MOUs must be on the ORO's mobilization list so they can be contacted during an incident, if needed.

State Negotiated Extent of Play:

During the plume phase exercise activities on April 27, 2016 the emergency workers will pre-stage at various locations to reduce the amount of travel time. MEMA will mobilize only key State agencies at the Maryland EOC. All other facilities will activate according to plans. Key State Agencies are: MEMA, Maryland Military Department/National Guard, Maryland Department of the Environment, Maryland Department of Health and Mental Hygiene, Maryland Department of Natural Resources, Maryland Department of Agriculture, Maryland Department of Transportation, Maryland State Police, Maryland Department of Education and the Maryland Institute for Emergency Medical Services Systems. The Maryland Department of the Environment field monitoring teams will pre-stage.

Risk and Support Jurisdictions Negotiated Extent of Play:

The County Agencies involved are Harford County Department of Emergency Services and Cecil County Department of Emergency Services. 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 (Congregate Care, Reception Centers, Emergency Worker Monitoring and Decontamination Stations and Monitoring and Decontamination Centers). Cecil County MS-1 Union Hospital in Cecil County will not pre-

stage its players. However, the Rising Sun EMS staff will pre-stage at the location that will begin the MS-1 portion of the exercise. Harford County MS-1 Upper Chesapeake Medical Center will not pre-stage its players. However, the Darlington Volunteer Fire Company will pre-stage at the location that will begin the MS-1 portion of the exercise.

Outstanding Issues:

None

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

State Negotiated Extent of Play:

All State locations have been evaluated for the current 8-year cycle.

Risk and Support Jurisdictions Negotiated Extent of Play:

Cecil County EOC evaluations have been completed for their 8-year cycle. Harford County has a new EOC which will be evaluated on April 27th during the drill. The following locations will be evaluated during the out of sequence demonstrations. Harford County Fallston High School (Reception Center / E-Worker Monitoring) Patterson Mill High School (Congregate Care) Cecil County Rising Sun High School (Reception Center / Congregate Care) Perryville High School (E-Worker Monitoring)

Outstanding Issues:

None

Sub-element 1.c – Direction and Control

Intent

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

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

Assessment/Extent of Play

Assessment of this Demonstration Criterion may be accomplished in a full scale, functional, or tabletop exercise. Leadership personnel must demonstrate the ability to carry out the essential management functions of the response effort (e.g., keeping staff informed through periodic briefings and/or other means, coordinating with other OROs, and ensuring completion of requirements and requests.) Leadership must demonstrate the ability to prioritize resource tasking and replace/supplement resources (e.g., through MOUs or other agreements) when faced with competing demands for finite resources. Any resources identified through LOA/MOUs must be on the ORO's mobilization list so they may be contacted during an incident, if needed.

State Negotiated Extent of Play:

All activities will be in accordance with plans and procedures.

Risk and Support Jurisdictions Negotiated Extent of Play:

All activities will be in accordance with plans and procedures.

Outstanding Issues:

None

Sub-element 1.d – Communications Equipment

Intent

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs establish and operate reliable primary and backup communication systems to ensure communications with key emergency personnel at locations such as contiguous governments within the EPZ, Federal emergency response organizations, the licensee and its facilities, EOCs, Incident Command Posts, and FMTs.

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

Assessment/Extent of Play

Assessment of this Demonstration Criterion is accomplished initially in a baseline evaluation and subsequently in periodic testing and drills. System familiarity and use must be demonstrated as applicable in full scale, functional and tabletop exercises, or if their use would be required, during an actual event.

OROs must demonstrate that a primary system, and at least one backup system for fixed facilities, is fully functional at all times. Communications systems are maintained and tested on a recurring basis throughout the assessment period and system status is available to all operators. Periodic test results and corrective actions are maintained on a real time basis. 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 are used as needed for transmission and receipt of exercise messages. All facilities, FMTs, and incident command must have the capability to access at least one communication system that is independent of the commercial telephone system. Responsible OROs must demonstrate the capability to manage the communication systems and ensure that all message traffic is handled without delays that might disrupt emergency operations. OROs must ensure that a coordinated communication link for fixed and mobile medical support facilities exists. Exercise scenarios may require the failure of a communication system and use of an alternate system, as negotiated in the Extent-of-Play Agreement.

State Negotiated Extent of Play:

This element will be demonstrated during the April 27, 2016 exercise in accordance with plans. Failure of communications equipment will not be provided in the scenario but may be discussed with appropriate personnel

Risk and Support Jurisdictions Negotiated Extent of Play:

This element will be demonstrated during the April 27, 2016 exercise in accordance with plans. Failure of communications equipment will not be provided in the scenario but may be discussed with appropriate personnel.

Outstanding Issues:

None

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

Intent

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

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

Assessment/Extent of Play

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

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

Specific equipment and supplies that must be demonstrated under this criterion include KI inventories, dosimetry, and monitoring equipment, as follows:

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

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

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

Appropriate direct-reading dosimetry must allow an individual(s) to read the administrative reporting limits and maximum exposure limits contained in the ORO's plans/procedures.

Direct-reading dosimeters must be zeroed or operationally checked prior to issuance. The dosimeters must be inspected for electrical leakage at least annually and replaced when necessary. Civil Defense Victoreen Model 138s (CD V-138s) (0-200 mR), due to their documented history of electrical leakage problems, must be inspected for electrical leakage at least quarterly and replaced when necessary. This leakage testing will be verified during the exercise, through documentation submitted in the ALC and/or through an SAV.

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

Mutual Aid Resources: If the incoming resources arrive with their own equipment (i.e., monitors and/or dosimetry), they will be evaluated by REP Program standards. FEMA will not inventory

equipment that is not part of the REP Program. If an agency has a defined role in the REP Plan, they are subject to the planning process and standards, as well as the guidance of this Manual.

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

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

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

State Negotiated Extent of Play:

All activities will be based on the ORO's plans and procedures and completed as they would be in an actual emergency. Electrical leakage information is included with the Annual Letter of certification. Electronic dosimetry, used at most locations, does not require electrical leakage testing. Actual self-reading dosimetry will be issued however permanent dosimetry may be simulated. Quantities of dosimetry and KI available at storage locations(s) have been confirmed by documentation of current inventory submitted the Annual Letter of Certification submission. KI tablets for emergency workers will be simulated. Actual distribution of KI will not be demonstrated.

Risk and Support Jurisdictions Negotiated Extent of Play:

All activities will be based on the ORO's plans and procedures and completed as they would be in an actual emergency. Electrical leakage information is included with the Annual Letter of certification. Electronic dosimetry, used at most locations, does not require electrical leakage testing. Actual self-reading dosimetry will be issued however permanent dosimetry may be simulated. Quantities of dosimetry and KI available at storage locations(s) have been confirmed by documentation of current inventory submitted the Annual Letter of Certification submission. KI tablets for emergency workers will be simulated. Actual distribution of KI will not be demonstrated.

Outstanding Issues:

None

ASSESSMENT AREA 2: PRECAUTIONARY AND/OR PROTECTIVE ACTION DECISION-MAKING

Sub-element 2.a – Emergency Worker Exposure Control

Intent

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs 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/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 TEDE or organ-specific limits) identified in the ORO's plans/procedures.

Criterion 2.a.1: OROs use a decision-making process, considering relevant factors and appropriate coordination, to ensure that an exposure control system, including the use of KI, is in place for emergency workers, including provisions to authorize radiation exposure in excess of administrative limits or protective action guides. (NUREG-0654/FEMA-REP-1, C.6; J.10. e, f; K.3.a; K.4)

Assessment/Extent of Play

Assessment of this Demonstration Criterion must be assessed concurrently with a licensee exercise and may be demonstrated in a full scale, functional or tabletop exercise.

OROs authorized to send emergency workers into the plume exposure pathway EPZ must demonstrate a capability to comply with emergency worker exposure limits based on their emergency plans/procedures.

Participating OROs must also demonstrate the capability to make decisions concerning authorization of exposure levels in excess of pre-authorized levels and the number of emergency workers receiving radiation doses above pre-authorized levels. This would include providing KI and dosimetry in a timely manner to emergency workers dispatched onsite to support plant incident assessment and mitigating actions, in accordance with respective plans/procedures.

As appropriate, OROs must demonstrate the capability to make decisions on the distribution and administration of KI as a protective measure for emergency workers, based on their plans/procedures or projected thyroid dose compared with the established PAGs for KI administration.

State Negotiated Extent of Play:

All activities will be conducted in accordance with plans

Risk and Support Jurisdictions Negotiated Extent of Play:

All activities will be conducted in accordance with plans

Outstanding Issues:

None

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

Intent

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to independently project integrated dose from projected or actual dose rates and compare these estimates to the PAGs. OROs must have the capability to choose, among a range of protective actions, those most appropriate in a given emergency. OROs base these choices on PAGs from their plans/procedures or EPA's *Manual of Protective Action Guides and Protective Actions for Nuclear Incidents* and other criteria, such as plant conditions, licensee PARs, coordination of Precautionary and/or Protective Action Decisions with other political jurisdictions (e.g., other affected OROs and incident command), availability of in-place shelter, weather conditions, and situations, to include HAB incidents, the threat posed by the specific

hostile action, the affiliated response, and the effect of an evacuation on the threat response effort, that create higher than normal risk from general population evacuation.

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

Assessment/Extent of Play

Assessment of this Demonstration Criterion must be accomplished concurrently with a licensee exercise and may be demonstrated in a full-scale, functional or tabletop exercise.

During the initial stage of the emergency response, following notification of plant conditions that may warrant offsite protective actions, the ORO must demonstrate the capability to use appropriate means, described in the plans/procedures, to develop PARs for decision-makers based on available information and recommendations provided by the licensee as well as field monitoring data, if available. The ORO must also consider any release and meteorological data provided by the licensee.

The ORO must 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 must be appropriate to the scenario. In all cases, calculation of projected dose must be demonstrated. Projected doses must be related to quantities and units of the PAG to which they will be compared. PARs must be promptly transmitted to decision-makers in a pre-arranged format.

When the licensee and ORO projected doses differ by more than a factor of 10, the ORO and licensee must determine the source of the difference by discussing input data and assumptions, using different models, or exploring possible reasons. Resolution of these differences must be incorporated into the PARs if timely and appropriate. The ORO must 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/procedures and completed as they would be in an actual emergency, unless noted above or otherwise specified in the Extent-of-Play Agreement.

State Negotiated Extent of Play:

All activities will be conducted in accordance with MDE plans and procedures. The MDE Decision Maker does not travel to the Exelon Nuclear Coatesville EOF. He/She will remain local to the MDE or MEMA facility.

Risk and Support Jurisdictions Negotiated Extent of Play:

All activities will be conducted in accordance with respective plans and procedures.

Outstanding Issues:

None

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

Assessment/Extent of Play

Assessment of this Demonstration Criterion must be accomplished concurrently with a licensee exercise and may be demonstrated in a full-scale, functional or tabletop exercise.

OROs must have the capability to make both initial and subsequent Precautionary and/or Protective Action Decisions. OROs must demonstrate the capability to make initial Precautionary and/or Protective Action Decision in a timely manner appropriate to the incident, based on information from the licensee, assessment of plant status and potential or actual releases, other available information related to the incident, input from appropriate ORO authorities (e.g., incident command), and PARs from the utility and ORO staff. In addition, a subsequent or alternate Precautionary and/or Protective Action Decision may be appropriate if various conditions (e.g., an HAB incident, weather, release timing and magnitude) pose undue risk to an evacuation, or if evacuation may disrupt the efforts to respond to a hostile action.

OROs must demonstrate the ability to obtain supplemental resources (e.g., mutual aid) necessary to implement a Precautionary and/or Protective Action Decision if local law enforcement, fire service, HAZMAT, and emergency medical resources are used to augment response to the NPP site or other key infrastructure.

Dose assessment personnel may provide additional PARs based on the subsequent dose projections, field monitoring data, or information on plant conditions. In addition, incident command must provide input regarding considerations for subsequent PARs based on the magnitude of the ongoing threat, the response, and/or site conditions. The decision-makers must demonstrate the capability to change protective actions based on the combination of all these factors.

If the ORO has determined that KI will be used as a protective measure for the general public under offsite plans/procedures, then it must demonstrate the capability to make decisions on the

distribution and administration of KI to supplement sheltering and evacuation. This decision must be based on the ORO's plans/procedures or projected thyroid dose compared with the established PAG for KI administration. The KI decision-making process must involve close coordination with appropriate assessment and decision-making staff.

If more than one ORO is involved in decision making, all appropriate OROs must communicate and coordinate PADs with each other. In addition, decisions must be coordinated/communicated with incident command. OROs must demonstrate the capability to communicate the results of decisions to all the affected locations.

The OROs must demonstrate how the decision-making process takes those with disabilities and access/functional needs (e.g., nursing homes, correctional facilities, licensed day cares, mobility-impaired individuals, and transportation-dependent individuals) into account.

State Negotiated Extent of Play:

This activity will be conducted in accordance with plans. Maryland counties have the authority to initiate or expand a PAD. If a recommendation is made for the general public to take KI, appropriate information will be provided to the public by the means of notification specified in the plan and/or procedures. The Maryland Department of Health and Mental Hygiene with input from MDE will decide whether or not to issue KI to the public based on plant conditions or a calculation to determine if protective thyroid dose (CDE Thyroid) exceeds projected dose during a General Emergency. This decision is coordinated my MEMA through the MDE Accident Assessment Center.

Risk and Support Jurisdictions Negotiated Extent of Play:

Same as State

Outstanding Issues:

None

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

Intent

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to determine Precautionary and/or Protective Action Decisions including evacuation, sheltering, and use of KI, if applicable, for groups of persons with disabilities and access/functional needs (e.g., hospitals, nursing homes, correctional facilities, schools, licensed

daycare centers, mobility-impaired individuals, and transportation-dependent individuals). The focus is on those groups of persons with disabilities and access/functional needs that are, or potentially will be, affected by a radiological release from an NPP.

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

Assessment/Extent of Play

Assessment of this Demonstration Criterion must be accomplished concurrently with a licensee exercise and may be demonstrated in a full-scale, functional or tabletop exercise that would include the use of plant conditions transmitted from the licensee.

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 incidents where there is a high-risk environmental condition or where high-risk groups (e.g., the immobile or infirm) are involved. In these cases, factors that must be considered include weather conditions, shelter availability, availability of transportation assets, risk of evacuation versus risk from the avoided dose, and precautionary school evacuations. In addition, decisions must be coordinated/communicated with the incident command. In situations where an institutionalized population cannot be evacuated, the ORO must consider use of KI.

Applicable OROs must 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. Demonstration requires that the OROs actually contact public school systems/districts during the exercise.

In accordance with plans/procedures, OROs and/or officials of public school systems/districts must demonstrate the capability to make prompt decisions on protective actions for students. The decision-making process, including any preplanned strategies for protective actions for that ECL, must consider the location of students at the time (e.g., whether the students are still at home, en route to school, or at school).

State Negotiated Extent of Play:

All decision-making activities associated with protective actions, including consideration of available resources, for special population groups will be based on the ORO's plans and procedures and completed, as they would be in an actual emergency. List of any special populations will be available for review. School protective actions will be demonstrated as an out-of-sequence activity. Private schools, private kindergartens and day care centers will not

participate in the exercise however; OROs will have lists of any facilities located within the jurisdiction available for review.

Risk and Support Jurisdictions Negotiated Extent of Play:

All decision-making activities associated with protective actions, including consideration of available resources, for special population groups will be based on the ORO's plans and procedures and completed, as they would be in an actual emergency. List of any special populations will be available for review. School protective actions will be demonstrated as an out-of-sequence activity. Private schools, private kindergartens and day care centers will not participate in the exercise however; OROs will have lists of any facilities located within the jurisdiction available for review.

Outstanding Issues:

None

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

Intent

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the means to assess the radiological consequences for the ingestion exposure pathway, relate them to the appropriate PAGs, and make timely, appropriate PADs to mitigate exposure from the pathway.

During an incident at an NPP, a release of radioactive material may contaminate water supplies and agricultural products in the surrounding areas. Any such contamination would likely occur during the plume phase of the incident and, depending on the nature of the release, could impact the ingestion pathway for weeks or years.

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

Assessment/Extent of Play

Assessment of this Demonstration Criterion must be accomplished concurrently with a licensee exercise and may be demonstrated in a full-scale, functional or tabletop exercise that would include the use of plant conditions transmitted from the licensee.

OROs are expected to take precautionary actions to protect food and water supplies, or to minimize exposure to potentially contaminated water and food, in accordance with their respective plans/procedures. Often OROs initiate such actions based on criteria related to the facility's ECLs. Such actions may include recommendations to place milk animals on stored feed and use protected water supplies. The ORO must use its procedures to assess the radiological consequences of a release on the food and water supplies, such as the development of a sampling plan. The ORO's assessment must include evaluation of the radiological analyses of representative samples of water, food, and other ingestible substances of local interest from potentially impacted areas; characterization of the releases from the facility; and the extent of areas potentially impacted by the release. During this assessment, OROs must consider use of agricultural and watershed data within the 50-mile EPZ. The radiological impacts on the food and water must then be compared to the appropriate ingestion PAGs contained in the ORO's plans/procedures. The plans/procedures contain PAGs based on specific dose commitment criteria or on criteria as recommended by current Food and Drug Administration (FDA) guidance. Timely and appropriate recommendations must be provided to the ORO decision-makers group for implementation decisions. OROs may also include a comparison of taking or not taking a given action on the resultant ingestion pathway dose commitments.

The ORO must demonstrate timely decisions to minimize radiological impacts from the ingestion pathway, based on the given assessments and other information. Any such decisions must be communicated and, to the extent practical, coordinated with neighboring OROs. These decisions include tracking agricultural products entering and leaving the EPZ. Demonstration of plans and procedures which use traffic access control points to track agricultural products entering and leaving the EPZ may be conducted through interview.

OROs must use Federal resources, as identified in the Nuclear/Radiological Incident Annex of the NRF and other resources (e.g., compacts or nuclear insurers). Evaluation of this criterion will take into consideration the level of Federal and other participating resources.

State Negotiated Extent of Play:

Not demonstrated

Risk and Support Jurisdictions Negotiated Extent of Play:

Not demonstrated

Outstanding Issues:

N/A

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

Intent

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to make decisions on post-plume phase relocation, reentry, and return of the general public. These decisions are essential for protection of the public from direct long-term exposure to deposited radioactive materials from a severe incident at an NPP.

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

Assessment/Extent of Play

Assessment of this Demonstration Criterion must be accomplished concurrently with a licensee exercise and may be demonstrated in a full-scale, functional or tabletop exercise that would include the use of plant conditions transmitted from the licensee.

Relocation: OROs must demonstrate the capability to estimate integrated dose in contaminated areas and compare these estimates with PAGs; apply decision criteria for relocation of those individuals in the general public who have not been evacuated, but where actual or projected doses are in excess of relocation PAGs; and control access to evacuated and restricted areas. OROs will make decisions for relocating members of the evacuated public who lived in areas that now have residual radiation levels in excess of the PAGs. Determination of areas to be restricted must be based on factors such as the mix of radionuclides in deposited materials, calculated exposure rates versus the PAGs, and analyses of vegetation and soil field samples.
Reentry: Decisions must be made on location of control points and policies regarding access and exposure control for emergency workers and members of the general public who need to temporarily enter the evacuated area to perform specific tasks or missions.

Examples of control procedures are the assignment of, or checking for, direct-reading and permanent record dosimetry for emergency workers; questions regarding an individual's objectives, locations expected to be visited, and associated timeframes; availability of maps and plots of radiation exposure rates; and advice on areas to avoid. Control procedures also include monitoring of individuals, vehicles, and equipment; the implementation of decision criteria regarding decontamination; and proper disposition of emergency worker dosimetry and maintenance of emergency worker radiation exposure records.

Responsible OROs must demonstrate the capability to develop a strategy for authorized reentry of individuals into the restricted zone(s), based on established decision criteria. OROs must demonstrate the capability to modify those policies for security purposes (e.g., police patrols), maintenance of essential services (e.g., fire protection and utilities), and other critical functions. They must demonstrate the capability to use decision-making criteria in allowing access to the restricted zone by the public for various reasons, such as to maintain property (e.g., to care for farm animals or secure machinery for storage) or retrieve important possessions. Coordinated policies for access and exposure control must be developed among all agencies with roles to perform in the restricted zone(s). OROs must demonstrate the capability to establish policies for provision of dosimetry to all individuals allowed to reenter the restricted zone(s). The extent to which OROs need to develop policies on reentry will be determined by scenario events.

Return: OROs must demonstrate the capability to implement policies concerning return of members of the public to areas that were evacuated during the plume phase (i.e., permitting populations that were previously evacuated to reoccupy their homes and businesses on an unrestricted basis). OROs must base decisions on environmental data and political boundaries or physical/ geological features, which allow identification of the boundaries of areas to which members of the general public may return. Return is permitted to the boundary of the restricted area(s) that is based on the relocation PAG.

Other factors that the ORO must consider in decision-making include conditions that permit cancellation of the ECL and relaxation of associated restrictive measures. OROs must base return recommendations on measurements of radiation from ground deposition. OROs must have the capability to identify services and facilities that require restoration within a few days and to identify the procedures and resources for their restoration. Examples of these services and facilities are medical and social services, utilities, roads, schools, and intermediate-term housing for relocated persons.

State Negotiated Extent of Play:

Not demonstrated

Risk and Support Jurisdictions Negotiated Extent of Play:

Not demonstrated

Outstanding Issues:

N/A

ASSESSMENT AREA 3: PROTECTIVE ACTION IMPLEMENTATION

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

Intent

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to provide for the following: distribution, use, collection, and processing of direct-reading dosimetry and permanent record dosimetry; reading of direct-reading dosimetry by emergency workers at appropriate frequencies; maintaining a radiation dose record for each emergency worker; establishing a decision chain or authorization procedure for emergency workers to incur radiation exposures in excess of the PAGs, and the capability to provide KI for emergency workers, always applying the —as low as is reasonably achievable‖ principle as appropriate.

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

Assessment/Extent of Play

Assessment of this Demonstration Criterion may be accomplished during a full-scale, functional or tabletop exercise. Other means may include drills, seminars or training activities that would fully demonstrate technical proficiency.

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

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

During a plume phase exercise, emergency workers must demonstrate the procedures to be followed when administrative exposure limits and turn-back values are reached. The emergency worker must report accumulated exposures during the exercise as indicated in the plans/procedures. OROs must demonstrate the actions described in the plans/procedures by determining whether to replace the worker, authorize the worker to incur additional exposures, or take other actions. If exercise play does not require emergency workers to seek authorizations for additional exposure, evaluators must interview at least two workers to determine their knowledge of whom to contact in case authorization is needed, and at what exposure levels. Workers may use any available resources (e.g., written procedures and/or coworkers) 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. In such cases, adequate control of exposure can be achieved for all team members using one direct-reading dosimeter worn by the team leader. Emergency workers assigned to low-exposure rate fixed facilities (e.g., EOCs and communications center within the EPZ, reception centers, and counting laboratories) may have individual direct-reading dosimeters or they may be monitored using group dosimetry (i.e., direct-reading dosimeters strategically placed in the work area). Each team member must still have his or her own permanent record dosimetry. Individuals authorized by the ORO to reenter an evacuated area during the plume (emergency) phase, must be limited to the lowest radiological exposure commensurate with completing their missions.

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

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

State Negotiated Extent of Play:

At the MDE Accident Assessment Center, dosimetry will be used by the Field Team workers.

Risk and Support Jurisdictions Negotiated Extent of Play:

At Cecil and Harford Counties, personnel performing route alerting will receive radiological briefings, dosimetry, simulated KI and forms at the County EOC during the April 27, 2016 plume phase activities. 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 county. Emergency workers will also be briefed on when to take KI and on whose authority. Distribution of KI will be simulated. Forms should also be demonstrated to emergency workers. Forms used by emergency workers to track dosimetry and KI should be filled out completely and, when appropriate, serial numbers should be entered on forms for dosimetry.

In Harford County and Cecil County, personnel working at evacuee or emergency worker monitoring and decontamination facility will receive dosimetry and forms from their officer in charge while on site. A minimum of six (6) dosimetry kits will be demonstrated for each county. This will be demonstrated out of sequence on March 29, 2016 from 19:00- 21:00. Emergency workers who are assigned to low exposure rate areas, e.g., at reception centers, counting laboratories, emergency operations centers and communications centers, may have individual direct-reading dosimeters or they may be monitored by dosimeters strategically placed in the work area.

Cecil County will conduct radiological briefings and distribute KI, dosimeters, and forms at Rising Sun EMS. A radiological officer will be at Rising Sun EMS to carry out these duties and a second officer will be at the EOC to conduct briefings and distribute equipment as necessary as well. At Union Hospital in Cecil County, personnel working at the hospital will follow procedural guidance regarding use of dosimetry and KI. The Rising Sun EMS will receive their player briefing and dosimetry at the Cecil County staging area, Rising Sun EMS.

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

Outstanding Issues:

None

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

Intent

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to provide KI for institutionalized individuals, and, if in the plans/procedures, to

the general public for whom immediate evacuation may not be feasible, very difficult, or significantly delayed. While it is necessary for OROs to have the capability to provide KI to institutionalized individuals, providing KI to the general public is an ORO option and must be reflected as such in ORO plans/procedures. Provisions must include the availability of adequate quantities, storage, and means of distributing KI.

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

Assessment/Extent of Play

Assessment of this Demonstration Criterion may be accomplished during a full-scale, functional or tabletop exercise. Other means may include drills, seminars or training activities that would fully demonstrate technical proficiency.

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

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

State Negotiated Extent of Play:

This activity will be conducted in accordance with plans and procedures. KI has been pre-distributed to the general public. However, availability and dissemination of KI for the general population will be demonstrated for the evaluator during this exercise up to the point of actual distribution at the Reception/Monitoring & Decontamination Centers/Congregate Care Centers.

KI for the Emergency Workers will be evaluated through inventory sheets and/or inspection. KI will not be removed from the storage locations. KI questions will be addressed through interviews or submitted in the Annual Letter of Certification. Simulated KI may be used. The quantity of KI available for Emergency Workers will be made known to evaluators through inspection or inventory sheets.

Risk and Support Jurisdictions Negotiated Extent of Play:

Same as State

Outstanding Issues:

None

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

Intent

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to implement PADs, including evacuation and/or sheltering, for all persons with disabilities and access/functional needs. The focus is on those persons with disabilities and access/functional needs that are (or potentially will be) affected by a radiological release from an NPP.

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

Assessment/Extent of Play

Assessment of this Demonstration Criterion may be accomplished during a full-scale or functional exercise, an actual event, or by means of drills conducted at any time.

Applicable OROs must demonstrate the capability to alert and notify (i.e., provide PARs and emergency information and instructions to) persons with disabilities and access/functional needs, including hospitals/medical facilities, nursing homes, correctional facilities, and mobility-impaired and transportation-dependent individuals. OROs must demonstrate the capability to provide for persons with disabilities and access/functional needs in accordance with plans/procedures.

Contact with persons with disabilities and access/functional needs and reception facilities may be actual or simulated, as agreed to in the extent of play. Some contacts with transportation providers must be actual, as negotiated in the extent of play. All actual and simulated contacts must be logged.

State Negotiated Extent of Play:

N/A

Risk and Support Jurisdictions Negotiated Extent of Play:

All activities will be conducted in accordance with plans and procedures. The names, locations and contact information of identified individuals with identified special needs are maintained at each County EOC. Copies of these lists will not be provided to the evaluators; however, evaluators will be allowed to inspect the lists during the exercise.

Contact with special populations and reception facilities will be simulated (hospitals, nursing homes and correctional facilities). Actual contacts (up to two per Risk County) will be made with transportation providers as per plan. All actual and simulated contacts should be logged. AN interview will be conducted at each EOC with the organization that provides transportation on the April 27th Drill.

Outstanding Issues:

None

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

Assessment/Extent of Play

Assessment of this Demonstration Criterion may be accomplished during a full-scale, functional, or tabletop exercise, an actual event, or by means of drills conducted at any time.

Public school systems/districts must demonstrate the ability to implement PADs for students. The demonstration must be made as follows: Each school system/district within the 10 mile EPZ must demonstrate implementation of protective actions. At least one school per affected system/district must participate in the demonstration. Canceling the school day, dismissing early, or sheltering in place must 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, appropriate school personnel including decision-making officials (e.g., schools' superintendent/principals and transportation director/bus dispatchers), and at least one bus driver (and the bus driver's escort, if applicable) must be available to demonstrate knowledge of their role(s) in the evacuation of school children. Communications

capabilities between school officials and the buses, if required by the plans/procedures, must be verified.

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

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

State Negotiated Extent of Play:

N/A

Risk and Support Jurisdictions Negotiated Extent of Play:

This activity will be conducted in accordance with plans and procedures on March 2, 2016 in Cecil County and April 27, 2016 in Harford County. In Harford and Cecil Counties, the interview of the School Principal will be done at each school. In Harford, School District personnel will be at the District office.

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). Buses and drivers will not participate. 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. Potassium Iodide may be available at the school (pre-distributed) for the bus driver.

The School Services Officer is staged at the County EOC and will be coordinating activities with the Principal, including notifications. Private schools and kindergartens will not participate. Lists of these facilities will be provided and procedures for contacting them will be described. Licensed Day Care Facilities will be listed in the County EOC and the following information will be available for each:

- Name of Facility or Operator Name
- Facility Contact Name (if different from Operator Name)

- Facility Address
- Contact Phone Number

These Day Care Facilities will not be contacted.

Outstanding Issues:

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

Intent

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

Criterion 3.d.1: Appropriate traffic and access control is established. Accurate instructions are provided to traffic and access control personnel. (NUREG-0654/FEMA-REP-1, A.3; C.1.4; J.10.g, j)
Assessment/Extent of Play

Assessment of this Demonstration Criterion may be accomplished during a full-scale or functional exercise, an actual event, or by means of drills conducted at any time.

OROs must demonstrate the capability to select, establish, and staff appropriate traffic and access control points consistent with current conditions and PADs (e.g., evacuating, sheltering, and relocation) in a timely manner. OROs must 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 must demonstrate accurate knowledge of their roles and responsibilities, including verifying emergency worker identification and access authorization to the affected areas, as per the Extent-of-Play Agreement. These capabilities may be demonstrated by actual deployment or by interview, in accordance with the Extent-of-Play Agreement.

In instances where OROs lack authority necessary to control access by certain types of traffic (e.g., rail, water, and air traffic), they must demonstrate the capability to contact the state or Federal agencies that have the needed authority, as agreed upon in the Extent-of-Play Agreement.

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

State Negotiated Extent of Play:

This activity will be conducted in accordance with plans and procedures. Rail, water or air traffic will be coordinated through PEMA and implemented by the State. Actual contact with federal agencies (where required) will be simulated

Risk and Support Jurisdictions Negotiated Extent of Play:

This activity will be conducted in accordance with plans and procedures. This element will also be evaluated during the April 27, 2016 plume phase activities in Harford and Cecil Counties.

Traffic and Access control will be demonstrated by interview at the County EOC. 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.

Outstanding Issues:

None

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

Assessment/Extent of Play

Assessment of this Demonstration Criterion may be accomplished during a full-scale or functional exercise, an actual event, or by means of drills conducted at any time.

OROs must demonstrate the capability to identify and take appropriate actions concerning impediments to evacuations. In demonstrating this capability, the impediment must remain in place during the evacuation long enough that re-routing of traffic is required and must also result in demonstration of decision-making and coordination with the JIC to communicate the alternate route to evacuees. When, due to specifics of the scenario or jurisdiction, the impediment cannot be located on an evacuation route, it must be located so as to impact the evacuation. When not possible, actual dispatch of resources need not be physically demonstrated; however, all contacts, actual or simulated, must be logged.

State Negotiated Extent of Play:

N/A

Risk and Support Jurisdictions Negotiated Extent of Play:

This activity will be demonstrated in accordance with plans and procedures. This element will also be evaluated during the April 27, 2016 plume phase activities in Harford and Cecil Counties.

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

Outstanding Issues:

None

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

Intent

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to implement protective actions, based on criteria recommended by current FDA guidance, for the ingestion exposure pathway EPZ (i.e., the area within an approximate 50-mile radius of the NPP). This Sub-element focuses on those actions required for implementation of protective actions.

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

Assessment/Extent of Play

Assessment of this Demonstration Criterion may be accomplished during a full-scale or functional exercise, an actual event, or by means of drills conducted at any time.

Applicable OROs must demonstrate the capability to secure and use current information on the locations of dairy farms, meat and poultry producers, fisheries, fruit growers, vegetable growers, grain producers, food processing plants, and water supply intake points to implement protective actions within the EPZ. OROs use Federal resources as identified in the NRF Nuclear/Radiological Incident Annex, and other resources (e.g., compacts, nuclear insurers), 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/procedures and completed as they would be in an actual emergency, unless noted above or otherwise specified in the Extent-of-Play Agreement.

State Negotiated Extent of Play:

Not evaluated during this exercise

Risk and Support Jurisdictions Negotiated Extent of Play:

Not evaluated during this exercise

Outstanding Issues:

N/A

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

Assessment of this Demonstration Criterion may be accomplished during a full-scale or functional exercise, an actual event, or by means of drills conducted at any time.

OROs must demonstrate the development of measures and strategies for implementation of ingestion exposure pathway EPZ protective actions by formulating protective action information for the general public and food producers and processors. Demonstration of this criterion includes either pre-distributed public information material in the ingestion exposure pathway EPZ or the capability for rapid reproduction and distribution of appropriate reproduction-ready information and instructions to pre-determined individuals and businesses.

OROs must also demonstrate the capability to control, restrict, or prevent distribution of contaminated food by commercial sectors. Exercise play must include demonstration of communications and coordination among organizations to implement protective actions. Field play of implementation activities may be simulated. For example, communications and coordination with agencies responsible for enforcing food controls within the ingestion exposure pathway EPZ must be demonstrated, but actual communications with food producers and processors may be simulated.

State Negotiated Extent of Play:

Not evaluated during this exercise

Risk and Support Jurisdictions Negotiated Extent of Play:

Not evaluated during this exercise

Outstanding Issues:

N/A

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

Intent

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to implement plans, procedures, and decisions for post-plume phase relocation, reentry, and return. Implementation of these decisions is essential for protecting the public from direct long-term exposure to deposited radioactive materials from a severe incident at a commercial NPP.

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

Assessment/Extent of Play

Assessment of this Demonstration Criterion may be accomplished during a full-scale, functional, or tabletop exercise, an actual event, or by means of drills conducted at any time.

Relocation: OROs must demonstrate the capability to coordinate and implement decisions concerning relocation of individuals located in radiologically contaminated areas who were not previously evacuated. Such individuals must be relocated to an area(s) where radiological contamination will not expose the general public to doses that exceed the relocation PAGs. OROs must also demonstrate the capability to provide for short- or long-term relocation of evacuees who lived in an area(s) that has residual radiation levels above the (first-, second-, and 50-year) PAGs.

Areas of consideration must include the capability of OROs to communicate with other OROs regarding timing of actions, notification of the population of procedures for relocation, and

notification of, and advice for, evacuated individuals who will be converted to relocation status in situations where they will not be able to return to their homes due to high levels of contamination. OROs must also demonstrate the capability to communicate instructions to the public regarding relocation decisions and intermediate-term housing for relocated persons.

Reentry: OROs must demonstrate the capability to control reentry and exit of individuals who are authorized by the ORO to temporarily reenter the restricted area during the post-plume (i.e., intermediate or late) phase to protect them from unnecessary radiation exposure. OROs must also demonstrate the capability to control exit of vehicles and other equipment to control the spread of contamination outside the restricted area(s). Individuals without specific radiological response missions, such as farmers for animal care, essential utility service personnel, or other members of the public who must reenter an evacuated area during the post-emergency phase must be limited to the lowest radiological exposure commensurate with completing their missions. Monitoring and decontamination facilities will be established as appropriate.

Examples of control procedures are: (1) assignment of, or checking for, direct-reading and permanent record dosimetry for emergency workers; (2) questions regarding the individuals' objective(s), location(s) expected to be visited, and associated timeframes; (3) maps and plots of radiation exposure rates; (4) advice on areas to avoid; (5) procedures for exit, including monitoring of individuals, vehicles, and equipment; (6) decision criteria regarding contamination; (7) proper disposition of emergency worker dosimetry, and (8) maintenance of emergency worker radiation exposure records.

Return: OROs must demonstrate the capability to implement policies concerning return of members of the public to areas that were evacuated during the plume phase. OROs must demonstrate the capability to identify and prioritize services and facilities that require restoration within a few days, and to identify procedures and resources for their restoration. Examples of these services and facilities are medical and social services, utilities, roads, and schools.

Communication among OROs for relocation, reentry, and return may be simulated. All simulated or actual contacts must be documented. These discussions may be accomplished in a group setting.

OROs must use Federal resources as identified in the NRF Nuclear/Radiological Incident Annex, and other resources (e.g., compacts or nuclear insurers), if available. Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

State Negotiated Extent of Play:

Not evaluated during this exercise

Risk and Support Jurisdictions Negotiated Extent of Play:

Not evaluated during this exercise

Outstanding Issues:

N/A

ASSESSMENT AREA 4: FIELD MEASUREMENTS AND ANALYSIS

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

Intent

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to deploy FMTs with the equipment, methods, and expertise necessary to determine the location of airborne radiation and particulate deposition on the ground from an airborne plume. In addition, NUREG-0654/FEMA-REP-1 indicates that OROs must have the capability to use FMTs within the plume exposure pathway EPZ to detect airborne radioiodine in the presence of noble gases and radioactive particulate material in the airborne plume. In an incident at an NPP, the possible release of radioactive material may pose a risk to the nearby population and environment. Although incident assessment methods are available to project the extent and magnitude of a release, these methods are subject to large uncertainties. During an incident, it is important to collect field radiological data to help characterize any radiological release. Adequate equipment and procedures are essential to such field measurement efforts.

Criterion 4.a.1: [RESERVED]

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

Assessment/Extent of Play

Assessment of this Demonstration Criterion may be accomplished during a full-scale, functional, or tabletop exercise. Other means may include drills, seminars or training activities that would fully demonstrate technical proficiency.

Responsible OROs must demonstrate the capability to brief FMTs on predicted plume location and direction, plume travel speed, and exposure control procedures before deployment. During an HAB incident, the Field Team management must keep the incident command informed of field monitoring teams' activities and location. Coordination with FMTs and field monitoring

may be demonstrated as out-of-sequence demonstrations, as negotiated in the Extent-of-Play Agreement.

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

If the responsibility for obtaining 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 ORO monitoring teams. If the licensee FMTs 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 FMTs (licensee, Federal, and ORO) is essential.

OROs must use Federal resources as identified in the NRF Nuclear/Radiological Incident Annex and other resources (e.g., compacts or the licensee). Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

State Negotiated Extent of Play:

These activities will be based on the ORO's plans and procedures and completed, as they would be in an actual emergency. At least six readings will be obtained by each team at a survey point location. IAW agreements with Exelon State and Local organizations, State and local teams will not measure plume centerline radiation levels. Airborne radioactivity samples will be counted in the field. Chain of custody procedures to deliver samples for additional analysis will be described to the evaluator. Federal participation is not scheduled for this exercise. Contact with Federal resources will be simulated.

Risk and Support Jurisdictions Negotiated Extent of Play:

County field teams do not perform survey, air sampling or air sampling analysis. Harford and Cecil Counties do not dispatch field teams.

Outstanding Issues:

None

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

Assessment/Extent of Play

Assessment of this Demonstration Criterion may be accomplished during a full-scale, functional, or tabletop exercise. Other means may include drills, seminars or training activities that would fully demonstrate technical proficiency.

Two or more FMTs must demonstrate the capability to make and report measurements of ambient radiation to the field team coordinator, dose assessment team, or other appropriate authority. FMTs must also demonstrate the capability to obtain an air sample for measurement of airborne radioiodine and particulates, and to provide the appropriate authority with field data pertaining to measurement. If samples have radioactivity significantly above background, the authority must consider the need for expedited laboratory analyses of these samples. Coordination concerning transfer of samples, including a chain-of-custody form(s), to a radiological laboratory(ies) must be demonstrated. OROs must share data in a timely manner with all other appropriate OROs. All methodology, including contamination control, instrumentation, preparation of samples, and a chain-of-custody form(s) for transfer to a laboratory(ies), will be in accordance with the ORO's plans/procedures.

OROs must use Federal resources as identified in the NRF Nuclear/Radiological Incident Annex and other resources (e.g., compacts or the licensee). Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

State Negotiated Extent of Play:

These activities will be based on the ORO's plans and procedures and completed, as they would be in an actual emergency. At least six readings will be obtained by each team at a survey point location. IAW agreements with Exelon State and Local organizations, State and local teams will not measure plume centerline radiation levels. Airborne radioactivity samples will be counted in the field. Chain of custody procedures to deliver samples for additional analysis will be described to the evaluator. Federal participation is not scheduled for this exercise. Contact with Federal resources will be simulated

Risk and Support Jurisdictions Negotiated Extent of Play:

County field teams do not perform survey, air sampling or air sampling analysis. Harford and Cecil counties do not dispatch field teams.

Outstanding Issues:

None

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

Intent
This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to assess the actual or potential magnitude and locations of radiological hazards to determine the ingestion exposure pathway EPZ and to support relocation, reentry, and return decisions. This Sub-element focuses on collecting environmental samples for laboratory analyses that are essential for decisions on protecting the public from contaminated food and water and direct radiation from deposited materials.

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

Assessment/Extent of Play

Assessment of this Demonstration Criterion may be accomplished during a full-scale, functional, or tabletop exercise. Other means may include drills, seminars or training activities that would fully demonstrate technical proficiency.

The ORO's FMTs must demonstrate the capability to take measurements and samples, at such times and locations as directed, to enable an adequate assessment of the ingestion pathway and to support reentry, relocation, and return decisions. When resources are available, use of aerial surveys and in-situ gamma measurement is appropriate. All methodology, including contamination control, instrumentation, preparation of samples, and chain-of-custody form(s) for transfer to a laboratory(ies), will be in accordance with the ORO's plans/procedures.

The FMTs and/or other sampling personnel must secure ingestion pathway samples from agricultural products and water. Samples in support of relocation and return must be secured from soil, vegetation, and other surfaces in areas that received radioactive ground deposition.

OROs must use Federal resources as identified in the NRF Nuclear/Radiological Incident Annex and other resources (e.g., compacts, the licensee, or nuclear insurers). Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

State Negotiated Extent of Play:

Not evaluated during this exercise

Risk and Support Jurisdictions Negotiated Extent of Play:

Not evaluated during this exercise

Outstanding Issues:

N/A

Sub-element 4.c – Laboratory Operations

Intent

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to perform laboratory analyses of radioactivity in air, liquid, and environmental samples to support protective action decision making.

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

Assessment/Extent of Play

Assessment of this Demonstration Criterion may be accomplished during a full-scale, functional, or tabletop exercise. Other means may include drills, seminars or training activities that would fully demonstrate technical proficiency.

The laboratory staff must demonstrate the capability to follow appropriate procedures for receiving samples, including logging information, preventing contamination of the laboratory(ies), preventing buildup of background radiation due to stored samples, preventing cross contamination of samples, preserving samples that may spoil (e.g., milk), and keeping track of sample identity. In addition, the laboratory staff must demonstrate the capability to prepare samples for conducting measurements. The laboratory(ies) must be appropriately equipped to provide, upon request, timely analyses of media of sufficient quality and sensitivity to support assessments and decisions anticipated in the ORO's plans/procedures. The laboratory instrument calibrations must be traceable to standards provided by the National Institute of Standards and Technology. Laboratory methods used to analyze typical radionuclides released in a reactor incident must be as described in the plans/procedures. New or revised methods may be used to analyze atypical radionuclide releases (e.g., transuranics or as a result of a terrorist incident) or if warranted by incident circumstances. Analysis may require resources beyond those of the ORO.

The laboratory staff must be qualified in radio-analytical techniques and contamination control procedures.

OROs must use Federal resources as identified in the NRF Nuclear/Radiological Incident Annex and other resources (e.g., compacts, the licensee, or nuclear insurers). Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.

State Negotiated Extent of Play:

Not evaluated during this exercise

Risk and Support Jurisdictions Negotiated Extent of Play:

Not evaluated during this exercise

Outstanding Issues:

N/A

ASSESSMENT AREA 5: EMERGENCY NOTIFICATION AND PUBLIC INFORMATION

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

Intent

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to provide prompt instructions to the public within the plume exposure pathway EPZ. Specific provisions addressed in this Sub-element are derived from the Guide for the Evaluation of Alert and Notification Systems for Nuclear Power Plants, FEMA-REP-10 (November 1985).

ATTACHMENT B – FEDERAL EVALUATION PROCESS MATRIX

Evaluation Area	Consolidate	Frequency	Out-of-Sequence of Exercise Scenario	Credit	Staff Assistance Visit
1. Emergency Operations Management	1, 2, 3, 4, 5, 14, 17, 30				
Mobilization		Every Exercise	NO	YES	NO
Facilities		Once if new[1]	NO	YES	YES
Direction and Control		Every Exercise	NO	NO	NO
Communications Equipment		Article I. Once per 8 yr. cycle	YES	YES	YES
Equipment and Supplies to Support Operations		Every Exercise	YES	YES	YES
2. Protective Action Decision-Making	5, 7, 9, 14, 15, 16, 17, 26, 28				
Emergency Worker Exposure Control		Every Exercise	YES	YES	YES
Radiological Assessment & Protective Action Recommendations & Decisions for the Plume Phase of the Emergency		Every Exercise	NO	NO	NO
Protective Action Decisions for the Protection of Special Populations		Every Exercise	NO	NO	NO
Radiological Assessment & Decision-making for the Ingestion Exposure Pathway[2]		Once in 6 yrs.	NO	NO	NO
Radiological Assessment & Decision-making Concerning Relocation, Re-entry, and Return[2]		Once in 6 yrs.	NO	NO	NO
3. Protective Action Implementation	5, 14, 15, 16, 17, 27, 29				
Implementation of Emergency Worker Exposure Control		Every Exercise	YES	YES	NO
Implementation of KI Decision		Once in 8 yrs.	YES	NO	NO

Evaluation Area	Consolidate	Frequency	Out-of-Sequence of Exercise Scenario	Credit	Staff Assistance Visit
Implementation of Protective Actions for Special Populations		Once in 8 yrs.[3]	YES	YES	YES
Implementation of Traffic and Access Control[4]		1 per Organization per exercise	YES	YES	YES
Implementation of Ingestion Pathway Decisions		Once in 8 yrs.	NO	NO	NO
Implementation of Relocation, Re-entry, and Return decisions		Once in 8 yrs.	NO	NO	NO
4. Field Measurement and Analysis	6, 8, 24, 25				
Plume Phase Field Measurements & Analysis		Every Full Participation Exercise	YES	YES	NO
Post Plume Phase Field Measurements and Sampling		Once in 8 yrs.	YES	YES	NO
Laboratory Operations		Once in 8 yrs.	YES	YES	NO
5. Emergency Notification and Public Information	10, 11, 12, 13				
Activation of the Prompt Alert and Notification System	10	Every exercise	NO	NO	NO
Activation of the Prompt Alert and Notification System (Fast Breaking)	10	Separate Drill once in 8 yrs.	NO	NO	NO
Emergency Information & Instructions for the Public and the Media		Every exercise	NO	NO	NO
6. Support Operations / Facilities	18, 19, 20, 21, 22				
Monitoring & Decontamination of Evacuees and Emergency Workers[3] & Registration of Evacuees		Once in 8 yrs.	YES	NO	NO
Monitoring & Decontamination		Once in 8 yrs.	YES	NO	NO

Evaluation Area	Consolidate	Frequency	Out-of-Sequence of Exercise Scenario	Credit	Staff Assistance Visit
of Emergency Worker Equipment[3]					
Temporary Care of Evacuees[6]		Once in 8 yrs.	YES	YES	YES
Transportation and Treatment of Contaminated Injured Individuals		Every 2 years	YES	YES	NO

1 Will be evaluated if new or changed substantially.
2 The plume phase and the post-plume phase (ingestion, relocation, re-entry and return) can be demonstrated separately.
3 All facilities must be evaluated once during the eight-year exercise cycle.
4 Physical deployment of resources is not necessary.
5 Facilities managed by the American Red Cross (ARC), under the ARC / FEMA MOU, will be evaluated once when designated or when substantial changes occur; all other facilities not managed by the ARC must be evaluated once in the eight-year exercise cycle.
6 Each State within the 10-mile EPZ of a commercial nuclear power site shall fully participate in an exercise jointly with the licensee and appropriate local governments at least every two years. Each State with multiple sites within its boundaries shall fully participate in a joint exercise at some site on a rotational basis at least every two years. When not fully participating in an exercise at a site, the State shall partially participate at that site to support the full participation of the local governments.