U.S. Department of Homeland Security
Region V
536 South Clark Street, Floor 6
Chicago, IL 60605

FEMA

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

To Whom It May Concern:

Enclosed is one copy of the After Action Report / Improvement Plan (AAR/IP) for the October 2 and 3, 2012, Radiological Emergency Preparedness (REP) Full Participation Plume Exposure Pathway and Ingestion Pathway Exercises for the Perry Nuclear Power Plant. The State of Ohio, Lake, Geauga and Ashtabula Counties, and the utility owner/operator, FirstEnergy Corporation, participated in this exercise. The AAR/IP was prepared by the U.S. Department of Homeland Security/Federal Emergency Management Agency (DHS/FEMA) Region V, Radiological Emergency Preparedness Program.

There were no Deficiencies or Areas Requiring Corrective Action (ARCAs) for the State of Ohio or the Counties of Lake, Geauga and Ashtabula. There were no previous ARCAs issued to the State of Ohio or the Counties of Lake, Geauga and Ashtabula from a past exercise that were corrected. There were no ARCAs that were successfully re-demonstrated during the exercises.

A previous Planning Issue (03-10-5.a.1-A-03), which was issued under Criterion 5.a.1 – Primary Alert and Notification, was corrected by the State of Ohio prior to the exercise through submission of an updated procedure. This Planning Issue was corrected by adding language to the Ohio Department of Natural Resources (ODNR) Division of Watercraft Lake Erie Restriction / Clearance Checklist Boating Advisories 1.1 and 1.2 that identifies the position title and agency (the Executive Director of the Ohio Emergency Management Agency) responsible for authorizing the clearing of boat traffic on Lake Erie in accordance with joint County/State Protective Action Decisions. The procedure updates were verified by the evaluator during this exercise.

There were five Planning Issues identified during the exercises, three Planning Issues for the State of Ohio, one Planning Issue for Lake County, and one Planning Issue for Geauga County.

The first Planning Issue for the State of Ohio (47-12-2e1-P-01) was issued under Criterion 2.e.1 – Timely Post-Plume Phase Relocation, Reentry and Return Decisions are Made and Coordinated, whereby the Ingestion Zone Recovery and Reentry Advisory Group (IZRRAG) procedures and Radiological Assessment Branch Director Procedure 350, dated 4/4/2012, do not provide detailed direction regarding how to design ingestion and deposition soil/vegetation sampling plans to ensure the plume disposition area is fully characterized. The State of Ohio will direct the IZRRAG member agencies to review and, as appropriate, revise their procedures to provide better guidance for sampling plan development. These changes will be implemented no later than March of 2014.

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The second Planning Issue identified for the State of Ohio (47-12-2e1-P-02) was also issued under Criterion 2.e.1 – Protective Action Recommendations are Based on Available Data, whereby the State Dose Assessment Systems Operator Procedure 352, dated 4/5/2012, does not provide a technical description or basis for the deposition sample calculations for 1st, 2nd, and 50-year dose and the subsequent Derived Response Level (DRL). The State of Ohio will direct the IZRRAG member agencies to review the sample processing methods and procedures and determine which process best meets the needs of the IZRRAG. Once this is determined, appropriate changes will be made to the affected procedures. This process will be completed no later than March of 2014.

The third Planning Issue identified for the State of Ohio (47-12-1e1-P-03) was issued under Criterion 1.e.1 – Equipment and Supplies to Support Operations, whereby some State and County emergency planning maps showed inconsistent boundaries separating Sub-Areas 1 and 3. A review of the maps in question revealed that the State map was in error, not the County map. Map corrections will be completed no later than February 28, 2013.

The Planning Issue identified for Lake County (47-12-6a1-P-04) was issued under 3.a.1 – Implementation of Emergency Worker Exposure Control, whereby the Lake County Emergency Management Agency Radiological Emergency Response Plan does not make clear the basis upon which 20 percent of the population will be monitored and whether sufficient portal monitors can be made available in a timely manner to complete monitoring in a timely manner (i.e., within 12 hours). This issue also applied to the Geauga and Ashtabula County plans and procedures. The County response to the planning issue indicates that one evacuee can be monitored every 15 seconds, assuming there are no delays. Potential delays are not considered, and the logistics for mobilizing additional portal monitors in a timely manner are not described in the plans and procedures. The Counties agree that it will be a challenge to complete monitoring in a timely manner using current procedures. In order to enhance their ability to handle both RERP-related monitoring and any all-hazards radiological monitoring that may be needed, additional portal monitors will be obtained. These monitors will be portable and available for use anywhere within any of the Ohio RERP Counties. Additional monitors will be made available in the most populated decontamination centers in order to efficiently process evacuees. These new monitors are scheduled to be in place in 2013. The applicable Standard Operating Guides (SOGs) in each County will then be updated prior to the next biennial exercise to reflect the availability of these new monitors and the logistics for making them operational in a timely manner.

The Planning Issue identified for Geauga County (47-12-3a1-P-05) was issued under Criterion 3.a.1, whereby Steps 2 and 3 of the Dosimetry Coordinator Guide (Personal Dosimetry) and the Dosimetry Report Form in Attachment 3 of the Geauga County SOGs, list different and potentially confusing turn back values for emergency workers inside and outside of the 10-mile EPZ Eliminating the 5R value on the Dosimetry Coordinator Guide and replacing it with a blank fill-in space will provide the flexibility needed for moving into the Intermediate and the Recovery Phases of an accident. The Dosimetry Coordinator Guide will be revised to incorporate this feature, and the revision will be implemented by the end of February 2013.

Additional information can be found in Section 3 of this report, entitled "Analysis of Capabilities."

Based on the results of the Plume and Ingestion Pathway exercises conducted on October 2 and 3, 2012, the offsite radiological emergency response plans and preparedness for the State of Ohio and affected local jurisdictions, site-specific to the Perry Nuclear Power Plant, can be implemented and

are adequate to provide reasonable assurance that appropriate measures can be taken offsite to protect the health and safety of the public in the event of a radiological emergency at the site.

Therefore, the Title 44 CFR, Part 350, approval of the offsite radiological emergency response plans and preparedness for the State of Ohio site-specific to the Perry Nuclear Power Plant, granted on June 17, 1994, remains in effect.

Copies of this report have been provided to the DHS/FEMA National Office, Nuclear Regulatory Commission (NRC) Region III and the State of Ohio.

If you have any questions, please contact William E. King, Chairman, Regional Assistance Committee, DHS/FEMA, Region V, at (312) 408-5575.

Sincerely,

Andrew Velasquez III
Regional Administrator

Enclosure (1)

Perry Nuclear Power Plant

After Action Report/ Improvement Plan

Exercise Date - October 02, 2012

Radiological Emergency Preparedness (REP) Program

FEMA

Published February 11, 2013

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Perry Nuclear Power Plant
After Action Report/Improvement Plan

Published February 11, 2013

Contents

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EXECUTIVE SUMMARY

On October 2 and 3, 2012, respectively, a Radiological Emergency Preparedness (REP) Full Participation Plume Exposure Pathway and 6-Year Ingestion Pathway Exercises were conducted in the 10-mile and 50-mile Emergency Planning Zones (EPZs) around the Perry Nuclear Power Plant (PNPP) by the U.S. Department of Homeland Security/Federal Emergency Management Agency (DHS/FEMA), Region V. The purpose of the exercises was to assess the level of preparedness of State and local jurisdictions in responding to a radiological emergency. The exercises were held in accordance with DHS/FEMA policies and guidance concerning the exercise of State and local Radiological Emergency Response Plans (RERPs) and procedures.

The most recent Plume Pathway exercise at this site was conducted on September 28, 2010. The previous Ingestion Pathway exercise for the State of Ohio was conducted on June 28, 2006 in the Beaver Valley Power Station 50-mile EPZ. The qualifying emergency preparedness exercise for the PNPP was conducted on November 28, 1984.

DHS/FEMA wishes to acknowledge the efforts of the many individuals who participated in this exercise. The State of Ohio, Counties of Lake, Geauga and Ashtabula, local municipalities, as well as various non-government entities and volunteers, all contributed to the success the exercise.
Protecting 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 on the part of all participants was evident during this exercise.
This Final After Action Report/Improvement Plan contains the evaluation of the biennial plume exposure pathway and six-year ingestion pathway exercises, including the evaluation of the following out-of-sequence activities:

State of Ohio:

- Primary Alert and Notification-Lake Erie / Dosimetry Control Officer (DCO) Briefing – Department of Natural Resources

- Field Monitoring Team Equipment Inventory / DCO Briefing – Ohio Emergency Management

Agency Radiological Instrument Maintenance and Calibration Facility.

- Laboratory Operations – Ohio Department of Health –Interview

- Field Monitoring Operations / DCO Briefing – Field Monitoring Teams; Sample Screening Point

- Field Team Center / Field Sampling Operations / DCO Briefing – Field Sampling Teams – Sample Screening Point

Lake County:

- Evacuation of Schools – Painesville School District – EV-2 Interview

- Evacuation of Schools – Riverside School District – EV-2 Interview

- Monitoring/Decontamination of Emergency Workers / DCO Briefing – Mentor Fire Department – Mentor High School

- Monitoring/Decontamination of Emergency Worker Vehicles and Equipment / DCO Briefing – Mentor Fire Department – Mentor High School

- Field Monitoring Team Operations / Equipment Inventory / DCO Briefing

- Medical Services (MS-1) Drill – Transportation – Perry Joint Fire Department EMS

- Medical Services (MS-1) Drill – Facility – Lake West Medical Center

- Backup Route Alerting – Fairport Harbor Fire Department

- Monitoring/Decontamination of Evacuees / DCO Briefing – Willoughby Fire Department – South High School

- Monitoring/Decontamination of Evacuee Vehicles / DCO Briefing – Willoughby Fire Department – South High School

- Reception Center Registration / KI Distribution to Public – American Red Cross / Lake County General Health District – South High School

- Congregate Care – American Red Cross – South High School

Geauga County:

- Monitoring/Decontamination of Evacuees / DCO Briefing – Munson Fire Department – Notre Dame Cathedral Latin High School

- Monitoring/Decontamination of Evacuee Vehicles / DCO Briefing – Munson Fire Department – Notre Dame Cathedral Latin High School

- Reception Center Registration / KI Distribution to Public – American Red Cross / Geauga County General Health District – Notre Dame Cathedral Latin High School

- Congregate Care – American Red Cross – Notre Dame Cathedral Latin High School

Ashtabula County:

- Traffic and Access Control / DCO Briefing – Geneva-on-the-Lake Police Department

- Backup Route Alerting / DCO Briefing – Geneva-on-the-Lake Fire Department

- Monitoring/Decontamination of Evacuees / DCO Briefing – Conneaut Fire Department – Conneaut Middle School

- Monitoring/Decontamination of Evacuee Vehicles – Conneaut Fire Department – Conneaut Middle School

- Reception Center Registration / KI Distribution to Public – American Red Cross / Ashtabula County General Health District – Conneaut Middle School

- Congregate Care – American Red Cross – Conneaut Middle School

Except where noted in this report, the State and local organizations demonstrated knowledge of their emergency response plans and procedures and adequately implemented them.

There were no Deficiencies or Areas Requiring Corrective Action (ARCAs) for the State of Ohio or the Counties of Lake, Geauga and Ashtabula. There were no previous ARCAs issued to the State of Ohio or the Counties of Lake, Geauga and Ashtabula from a past exercise that were corrected. There were no ARCAs that were successfully redemonstrated during the exercises.

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provide a technical description or basis for the deposition sample calculations for 1st, 2nd, and 50-year dose and the subsequent Derived Response Level (DRL). The State of Ohio will direct the IZRRAG member agencies to review the sample processing methods and procedures and determine which process best meets the needs of the IZRRAG. Once this is determined, appropriate changes will be made to the affected procedures. This process will be completed no later than March of 2014.

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In order to enhance their ability to handle both RERP-related monitoring and any all hazards radiological monitoring that may be needed, additional portal monitors will be obtained. These monitors will be portable and available for use anywhere within any of the Ohio RERP Counties.

Additional monitors will be made available in the most populated decontamination centers in order to efficiently process evacuees. These new monitors are scheduled to be in place in 2013. The applicable Standard Operating Guides (SOGs) in each County will then be updated prior to the next biennial exercise to reflect the availability of these new monitors and the logistics for making them operational in a timely manner.

The Planning Issue identified for Geauga County (47-12-3a1-P-05) was issued under Criterion 3.a.1, whereby Steps 2 and 3 of the Dosimetry Coordinator Guide (Personal Dosimetry) and the Dosimetry Report Form in Attachment 3 of the Geauga County SOGs, list different and potentially confusing turn back values for emergency workers inside and outside of the 10-mile EPZ Eliminating the 5R value on the Dosimetry Coordinator Guide and replacing it with a blank fill in space will provide the flexibility needed for moving into the Intermediate and the Recovery Phases of an accident. The Dosimetry Coordinator Guide will be revised to incorporate this feature, and the revision will be implemented by the end of February 2013.

Sections 3 and 4 of this report provide detailed information regarding any Deficiencies, ARCAs, Planning Issues and associated Schedule of Corrective Actions from a past exercise that were corrected as part of this exercise.

INTRODUCTION

EXERCISE BASIS:

On December 7, 1979, the President directed FEMA to assume the lead responsibility for all offsite nuclear planning and response. DHS/FEMA's activities are conducted pursuant to 44 Code of Federal Regulations (CFR) Parts 350 "Review and Approval of State and Local Radiological Emergency Plans and Preparedness", 351 "Radiological Emergency Planning and Preparedness" and 352 "Commercial Nuclear Power Plants: Emergency Preparedness Planning." These regulations are a key element in the Radiological Emergency Preparedness (REP) Program that was established following the Three Mile Island Nuclear Station accident in March 1979.

The FEMA Rule 44 CFR 350 establishes the policies and procedures for DHS/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 governments' participation in joint exercises with licensees.

DHS/FEMA's responsibilities in radiological emergency planning for fixed nuclear facilities include the following:

- Taking the lead in offsite emergency planning and in the review and evaluation of RERPs and

procedures developed by State and local governments;

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

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

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

- US. Department of Agriculture;
- US. Department of Commerce;
- US. Department of Energy;
- US. Department of Health and Human Services;
- US. Department of the Interior;
- US. Department of Transportation;
- US. Environmental Protection Agency;
- US. Food and Drug Administration; and
- US. Nuclear Regulatory Commission.

Representatives of these agencies serve on the DHS/FEMA Region V Regional Assistance Committee (RAC), which is chaired by DHS/FEMA.

Formal submission of the RERPs for the Perry Nuclear Power Plant to FEMA Region V by the State of Ohio and involved local jurisdictions occurred on January 23, 1986. Formal approval of these RERPs was granted by FEMA on June 17, 1994, under 44 CFR 350.

A REP Full Participation Plume Exposure Pathway Exercise and an Ingestion Pathway Exercise were conducted on October 2 and 3, 2012, respectively, and evaluated by DHS/FEMA to assess the capabilities of State and local offsite emergency preparedness organizations in implementing their RERPs and procedures to protect the public's health and safety during a radiological emergency involving the Perry Nuclear Power Plant. The purpose of this exercise report is to

present the exercise results and findings on the performance of the Offsite Response Organizations (ORO) during a simulated radiological emergency.

The findings presented in this report are based on the evaluations of the Federal evaluation team, with final determinations made by the DHS/FEMA Region V Regional Assistance Committee (RAC) Chairman, and approved by the DHS/FEMA Headquarters.

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

- NUREG-0654/FEMA-REP-1, Rev. 1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," November 1980;
- FEMA REP Program Manual, dated April 2012

Section 1 of this report, entitled "Exercise Overview", presents information pertaining to the team that planned and coordinated the exercise. This section also provides a listing of all participating jurisdictions and functional entities that were evaluated.

Section 2 of this report, entitled "Exercise Design Summary", contains the purpose and design of the exercise, a description of the plume pathway EPZ and presents basic information and data relevant to the exercise scenario.

Section 3 of this report, entitled "Analysis of Capabilities," presents detailed information on the demonstration of applicable exercise criteria at each jurisdiction or functional entity evaluated in a jurisdiction-based, issues-only format. This section also contains: (1) descriptions of all Deficiencies and ARCAs (if any) assessed during this exercise, recommended corrective actions, and the State and local government's schedule of corrective actions, if applicable, for each identified exercise issue; and (2) descriptions of unresolved ARCAs assessed during previous exercises and the status of the OROs efforts to resolve them.

Section 4 of this report, entitled "Conclusion," presents the DHS/FEMA summary of overall exercise conduct and results as evaluated against the requirements of 44 CFR 350.

EMERGENCY PLANNING ZONE (EPZ) DESCRIPTION

The Perry Nuclear Power Plant (PNPP) is owned by FirstEnergy Corporation and operated by its subsidiary FirstEnergy Nuclear Operating Company (FENOC). The PNPP site is located in the Village of North Perry, Lake County, Ohio, along the southern shore of Lake Erie, approximately 35 miles east of Cleveland, Ohio. The plant location is North Latitude 41° 48 04.2", West Longitude' 81° 08' 36,6". The populations of smaller municipalities, including Perry Village, North Perry Village, Madison Village, the villages of Fairport Harbor and Grand River, Geneva City, and Geneva-on-the-Lake Village, are included in the populations of their respective townships.

The Perry Nuclear Power Plant (PNPP) reactor Units One and Two are located approximately seven miles northeast of Painesville, Ohio, and 35 miles east of Cleveland, Ohio. The plant's reactor Unit One is a 1205 Me net (3579 megawatt) boiling water reactor (BWR) designed by General Electric Company. The reactor supplies steam to a General Electric turbine generator. Construction of Unit Two has been discontinued, and there are no plans to complete the unit at this time.

The plant site occupies approximately 1100 acres on a lake plain 50 feet above the lake low-water datum. The terrain surrounding the plant is essentially flat within five miles of the lakeshore. Rising generally to the south, the site is broken only by a lattice work of shallow, north-south stream beds and low, almost unnoticeable east-west ridges; the latter are remnants of ancient lake-shores. About five miles inland, the shoreline plane is abruptly cut by a 100-foot-deep ravine of the Grand River. The terrain south of the river is more rolling, interrupted by north-south ravines of tributaries of the Grand, Kellogg, Big, Paine and Mill creeks and several smaller streams. A large portion of the site is forested, some 250 acres are devoted to the plant structural complex and the remainder is open grassland.

The Nuclear Regulatory Commission defines two emergency planning zones around nuclear power plants: a plume exposure pathway zone with a radius of 10 miles (16 km), concerned primarily with exposure to, and inhalation of, airborne radioactive contamination, and an ingestion pathway zone of about 50 miles (80 km), concerned primarily with ingestion of food and liquids contaminated by radioactivity. The Nuclear Regulatory Commission's estimate of the risk each year of an earthquake intense enough to cause core damage to the reactor at Perry was

1 in 47,619, according to an NRC study published in August 2010.

The PNPP 10-mile EPZ encompasses land areas in three counties: Lake, Ashtabula, and Geauga. A total of 17 municipal jurisdictions are situated wholly or partially within the EPZ. The PNPP EPZ boundary follows geographic (township) boundary lines and major roadways, with the exception of part of the western boundary. The western EPZ boundary follows the Concord Township western boundary from the county line northward, continuing along the Painesville Township boundary line to the Conrail railroad. At the Conrail intersection it follows the 10-mile radius line to Mentor Marsh and continues west along the marsh to Lake Erie.

Lake County, where the PNPP is located, is the smallest of Ohio's 88 counties, with 232 square miles. The 2000 census, which is the most recent census upon which Evacuation Time Estimates have been approved by the Nuclear Regulatory Commission (NRC), estimates the permanent resident population to be 102,920 within the 10-mile emergency planning zone (EPZ); 13,591 are residents of Geneva and Harpersfield Townships in Ashtabula County, with an estimated 1,930 residents in Geauga County. The 10-mile EPZ has an estimated peak summer population of 151,407 persons.

There are a number of beaches, parks, and campgrounds within the 10-mile EPZ that attract a sizeable transient population during the summer. These areas are located along the Lake Erie shore and in the stream valleys. In particular, Headlands State Park (just west of Fairport Harbor) and Geneva State Park (west of Geneva-on-the-Lake) draw large crowds on warm summer weekends.
Major highways that transverse the 10-mile EPZ are: Interstate 90, a four lane divided roadway (east-northeast to west-southwest) which runs between Pennsylvania (30 miles to the east) along Lake Erie to Cleveland (35 miles to the southwest); State Route 20, a major 4-lane roadway, which parallels 1-90 to the north approximately two miles; State Route 84, a 2-lane roadway which lies between 1-90 and State Route 20.

Significant rail lines in the 10-mile EPZ are: ConRail, which carries passenger rail-traffic on Amtrak; Norfolk and Western Railway, a subsidiary of Norfolk and Southern; Baltimore and Ohio Railway; and an independent, Painesyille Railway. The three main railways parallel the three roadways listed above and lie to the north of Interstate 90. There are two airports in the 10-mile EPZ: Casement Airport in Painesville Township and Concord Airport in Concord Township. Neither airport serves commercial air-passenger traffic.

The Perry 10-mile EPZ is subdivided into a total of seven Sub-Areas These Sub-Areas are the basic units for which protective action recommendations are issued. Sub-Area boundaries also generally follow geographic (township and city) boundaries and major roadways, and reflect distance and direction from PNPP. The distance ranges of concern are 0-2 miles, 2-5 miles, and beyond 5 miles. EPZ and Sub-Area boundaries have been accepted at the state and county levels and are incorporated in off-site radiological emergency response plans. Sub-Area descriptions are as follows:

Sub-Area I (within 2 miles of PNPP) consists of North Perry Village and portions of Perry Township (including Perry Public Schools) in Lake County. This area is bounded on the east by Townline Road, and on the west by Blackmore Road. On the south, it is bounded by Middle Ridge Road between Townline and Call Roads, the northern boundary of Perry Village, New York Avenue, Ohio Street and Route 20 to Blackmore Road.

Sub-Area 2 (2 to 5 miles East) includes portions of Madison Township and Madison Village in Lake County. This area is bordered on the east by Route 528, on the south by Interstate 90, and on the west by the Perry/Madison Township line and Townline Road. A small section of North Perry Village extends into Madison Township and Sub-Area 2.

Sub-Area 3 (2 to 5 miles South and West) includes Perry Village and portions of Perry, Leroy and Painesville Townships in Lake County. This area is bounded on the east by Townline Road and the Perry/Madison Township line; on the south and west by Interstate 90, Vrooman Road, Madison Avenue, Bowhall Road, Routes 20 and 535, and Hardy Road.

Sub-Area 4 (5 miles to EPZ boundary, East) includes the city of Geneva, Geneva-on-the-Lake Village and a portion of Geneva Township in Ashtabula County, as well as the eastern portions of Madison Village and Madison Township in Lake County. This area is bounded on the east by the Geneva Township eastern boundary, on the south by Interstate 90, on the west by Route 528.

Sub-Area 5 (5 miles to EPZ boundary, SE) includes portions of Madison Township in Lake County, Thompson Township in Geauga County and Harpersfield Township in Ashtabula County. This area is bounded on the east by Route 534, the Lake/Geauga County line and the Lake/Ashtabula County line; on the south by Route 166; on the west by the Lake/Geauga County line and the Madison/Leroy Township line; and on the north by Interstate 90.

Sub-Area 6 (5 miles to EPZ boundary, SW) includes portions of Concord and Leroy Townships in Lake County. This area is bounded on the east by the Madison/Leroy Township line and the Lake/Geauga County line; on the south by the Lake/Geauga County line; on the west by the Concord Township western boundary; and on the north by Interstate 90.

Sub-Area 7 (5 miles to EPZ boundary, West) includes the city of Painesville, the villages of Fairport Harbor and Grand River, and portions of Painesville, Concord and Leroy Townships and Mentor Headlands in Lake County, plus a small portion of Perry Township, southwest of the intersection of Route 84 with Vrooman Road. This area is bounded on the east by Hardy Road, Route 535, Route 20, Bowhall Road, Madison Avenue, and Vrooman Road; on the south by Interstate 90, and on the west by Concord and Painesville Township western boundaries; and a line extending cross country from the intersection of the Conrail Railroad track and the Mentor /Painesville Township line to the Mentor Marsh, and then extending westward to include the Mentor Headlands area.

The 50-mile EPZ encompasses portions of six Support Counties, including the Counties of Lorain, Mahoning, Medina, Portage, Summit, and Trumbull. The 50-mile EPZ also includes portions of three counties in the Commonwealth of Pennsylvania, including the Counties of Erie, Crawford and Mercer. The 50-mile EPZ also encompasses a portion of Canadian Lake Erie and a small peninsular land area along the north side of Lake Erie that includes Laverne Kelly Memorial and Rondeau Provincial Parks in Ontario, Canada.

SECTION 1: EXERCISE OVERVIEW

1.1 Exercise Details

Exercise Name
Perry Nuclear Power Plant

Type of Exercise
Ingestion

Exercise Date
October 02, 2012

Program
Department of Homeland Security/FEMA Radiological Emergency Preparedness Program

Scenario Type
Radiological Emergency

1.2 Exercise Planning Team Leadership

William King
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Radiological Assistance Committee, Chairman
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1.3 Participating Organizations

Agencies and organizations of the following jurisdictions participated in the Perry Nuclear Power Plant exercise:

State Jurisdictions

- Ohio Attorney Gereral's Office
- Ohio Department of Health
- Ohio Department of Public Safety
- Ohio Department of Natural Resources
- Ohio Department of Transportation
- Ohio Emergency Management Agency
- Ohio Environmental Protection Agency
- Ohio Governor's Office/Representative
- Ohio Highway Patrol
- Ohio National Guard
- Ohio State Highway Patrol
- Ohio State University Extention
- Perry Nuclear Power Plant Representitive
- Public Utilities Commission of Ohio

Risk Jurisdictions

Lake County

- Lake County Commissioners
- Lake County Emergency Management Agency
- Lake County Department of Job and Family Services
- Lake County Engineer's Office
- Lake County General Health District
- Lake County Mental Health and Recovery
- Lake County Sheriff's Office
- Fairport Fire Department
- Mentor Fire Department
- Perry Joint Fire District

- Painesville City School District
- Riverside School District
- Willoughby Fire Department

Geauga County:

- Geauga County Commissioners
- Geauga County Department of Emergency Services
- Geauga County Engineer
- Geauga County General Health District
- Geauga County Sheriff's Department
- Munson Fire Department
- Munson Township Community Emergency Response Team

Ashtabula County:

- Ashtabula County Commissioners
- Ashtabula County Emergency Management Agency
- Ashtabula County Sheriff's Department
- Conneaut Fire Department
- Conneaut Health Department
- Geneva-on-the-Lake Fire Department
- Geneva-on-the-Lake Police Department

Private Organizations

- American Red Cross
- First Energy Corporation
- Lake County Retired Senior Volunteer Program
- Lakeland Community College [Joint Information Center]
- LakeWest Medical Center
- Radio Amateur Civil Emergency Services (RACES)

Federal Jurisdictions

- Federal Emergency Management Agency:
  - IMAT Liaison
  - Federal Coordinating Officer
  - Region V, Watch
  - Region V, State Liaison
  - Regional Response Coordination Center (RRCC)
- U.S. Department of Agriculture

- U.S. Department of Energy
- U.S. Environmental Protection Agency
- U.S. Food and Drug Administration
- U.S. Department of Transportation
- U.S. Public Health Service

SECTION 2: EXERCISE DESIGN SUMMARY

2.1 Exercise Purpose and Design

The DHS/FEMA Region V Office evaluated the Perry Nuclear Power Plant Radiological Emergency Preparedness (REP) Full Participation Plume Exposure Pathway and Ingestion Pathway Exercises conducted on October 2 and 3, 2012, respectively, to assess the capabilities of local emergency preparedness organizations in implementing their Radiological Emergency Response Plans (RERP) and procedures to protect the public's health and safety during a radiological emergency involving the Perry Nuclear Power Plant. The purpose of this report is to present the results and findings on the performance of the Offsite Response Organizations (OROs) during a simulated radiological emergency.

2.2 Exercise Objectives, Capabilities and Activities

Exercise objectives and identified Capabilities/REP Criteria selected to be demonstrated are discussed in Appendix E "Exercise Plan."

The Exercise Planning Team (EPT) selected objectives that focus on evaluation emergency response procedures, identifying areas for improvement, and fostering collaboration between the various OROs and stakeholders. This exercises focused on the following objectives:

- ORO demonstration of effective Emergency Operations Management;
- ORO demonstration of effective Protective Action Decision Making;
- ORO demonstration of effective Protective Action Implementation;
- ORO demonstration of effective Emergency Notification and Public Information; and
- ORO demonstration of effective Support Operations and Facilities.

2.3 Scenario Summary

Appendix F "Scenario Time Line," contains a summary of the Exercise Scenario, a simulated sequence of events that was used as the basis for invoking emergency response actions by Offsite Response Organizations (OROs) in the Perry Nuclear Power Plant REP Full Participation Plume Exposure Pathway exercise conducted on October 2, 2012.

Results of a technical review of the Plume Phase Scenario, submitted by the State of Ohio and FirstEnergy Corporation on August 23, 2012, and the Ingestion Phase Scenario, submitted by the State of Ohio and FirstEnergy Corporation on September 7, 2012, indicated that the scenarios were adequate to support demonstration of DHS/FEMA requirements, as well as criteria selected by the off-site response organizations (OROs) in the State and County extent-of-play agreements submitted on September 7, 2012, and August 2, 2012. The DHS/FEMA Region V accepted this exercise scenario and extent of play agreements on September 20, 2012.

During the exercise, in addition to information and data provided through the Perry Nuclear Power Plant onsite scenario, controllers from the State of Ohio provided "inject messages" containing scenario events and/or relevant data to those persons or locations who would normally receive notification of such events. These inject messages were the method used for invoking additional specific response actions by OROs.

The details of the scenario are included in Appendix F "Scenario Timeline."

SECTION 3: ANALYSIS OF CAPABILITIES

3.1 Exercise Evaluation and Results

The section presents the results and findings of the evaluation of all jurisdictions and functional entities that participated in the October 2 and 3, 2012, Radiological Emergency Preparedness Full Participation Plume Exposure Pathway and Ingestion Pathway exercises to test the offsite emergency response capabilities of State and local governments in the 10-mile and 50-mile EPZs surrounding the Perry Nuclear Power Plant.

Each jurisdiction and functional entity was evaluated based on its demonstration of exercise criteria delineated in the Federal REP Program Manual, dated April 2012. Detailed information on the exercise criteria and the extent-of-play agreement used in this exercise are found in Appendix D "Exercise Plan" of this report.

Presented below are definitions of the terms used in this report relative to the criteria demonstration status:

• M – Met: The status of a REP exercise Evaluation Area Criterion indicating that the participating ORO demonstrated all demonstration criteria for the Evaluation Area Criterion to the level required in the extent-of-play agreement with no Deficiencies, ARCAs or Plan Issues assessed in the current exercise and no unresolved prior ARCAs.

• D – Deficiency: An observed or identified inadequacy of organizational performance in an exercise that could cause a finding that offsite emergency preparedness is not adequate to provide reasonable assurance that appropriate protective measures can be taken in the event of a radiological emergency to protect the health and safety of the public living in the vicinity of a nuclear power plant.

• A – Area Requiring Corrective Action – An observed or identified inadequacy of organizational performance in an exercise that is not considered, by itself, to adversely impact public health and safety. Listing of the demonstrated exercise criteria under which one or more ARCAs was/were assessed during the current exercise or ARCAs assessed during prior exercises remain unresolved. Included is a description of any ARCAs assessed during this exercise and the recommended corrective action to be demonstrated before or during the next biennial exercise

• P – Plan Issue – An observed or identified inadequacy in the ORO's emergency plan o implementing procedures, rather than in the ORO's performance.

• N – Not Demonstrated – Exercise criteria that were not demonstrated as scheduled during this exercise and the reason(s) they were not demonstrated.

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

• Prior ARCAs – Unresolved – Descriptions of ARCAs assessed during prior exercises that were not resolved in this exercise. Included is the reason the ARCA remains unresolved and recommended corrective actions to be demonstrated before or during the next exercise.

3.2 Summary Results of Exercise Evaluation

The matrix presented in Table 3.1, on the following page(s), presents the status of all exercise criteria from the FEMA REP Program Manual, dated April 2012, which were scheduled for demonstration during this exercise by all participating jurisdictions and functional entities. The Exercise criterion status box is blank if it was not scheduled for demonstration.

This subsection provides information on the evaluation of each participating jurisdiction and functional entity in a jurisdiction-based, issues-only format.

The DHS/FEMA has developed a standardized system for numbering exercise issues. This system is used to achieve consistency in numbering exercise issues among DHS/FEMA Regions and site-specific exercise reports within each Region. It also is used to expedite tracking of exercise issues on a nationwide basis.

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

• Plant Site Identifier – A two-digit number, corresponding to the Utility Billable Plant Site Code (3 for Perry Nuclear Power Plant).

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

• Demonstration Criterion – The letters and number corresponding to the Demonstration Criterion in the six Exercise Evaluation Areas described in the FEMA REP Program Manual, dated April 2012, which supersedes the Federal Register Notice, Vol. 67, No. 80, dated April 25, 2002.

• Issue Classification Identifier – (D = Deficiency, A = ARCA, P = Plan Issue).

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

Table 3.1 - Summary of Exercise Evaluation (7 pages)

DATE: 2012-10-02 SITE: Perry Nuclear Power Plant, OH M: Met, A: ARCA, D: Deficiency, P: Plan Issue, N: Not Demonstrated		OH-INP---	OH-EOC-ER---	OH-EOC-OR---	OH-EOC-AR---	OH-EOC-JIC---	OH-State JIC-PNPP-Lkeland CC	OH-JIC-PNPP-PIH-Lkeland CC	OH-EOF---	OH-EOC LAK-SR Analyst	OH--ODNR-LE Primary A&N DCO Brief	OH-ODNR-Lke Erie Primary A&N
Emergency Operations Management												
Mobilization	1a1	M		M	M		M		M	M		
Facilities	1b1											
Direction and Control	1c1		M	M	M		M	M				
Communications Equipment	1d1	M	M	M	M	M	M	M	M		M	M
Equipment and Supplies to Support Operations	1e1		M	M	P	M	M	M	M		M	M
Protective Action Decision Making												
EW Exposure Control Decisions	2a1		M		M					M		
PARs	2b1		M		M					M		
PADs	2b2		M		M							
PADs for Disabled/Functional Needs	2c1		M		M					M		
Ingestion PADs	2d1				M							
RRR Decisions	2e1											
Protective Action Implementation												
EW Exposure Control Implementation	3a1								M		M	M
KI Public/Institutionalized	3b1											
PAD Implementation Disabled/Functional Needs	3c1											
PAD Implementation Schools	3c2											
TACP Establishment	3d1		M									
Impediments	3d2											
Implement Ingestion PADs	3e1											
Coordination of RRR Decisions	3e2											
Coordination of RRR Decisions	3f1											
Field Measurement and Analysis												
RESERVED	4a1											
Field Team Management	4a2				M							
Field Team Operations	4a3											
Field Team Sampling	4b1											
Laboratory Operations	4c1											
Emergency Notification and Public Info												
Initial Alert & Notification	5a1		M									M
RESERVED	5a2											
Backup Alert & Notification	5a3											
Exception Area Alerting	5a4											
Subsequent Information & Instructions	5b1					M	M	M				
Support Operations/Facilities												

Reception Center Operations	6a1											
EW Monitoring & Decontamination	6b1											
Congregate Care	6c1											
Contaminated Injured Transport & Care	6d1											

Table 3.1 - Summary of Exercise Evaluation (Continued. page 2/7)

DATE: 2012-10-02 SITE: Perry Nuclear Power Plant, OH M: Met, A: ARCA, D: Deficiency, P: Plan Issue, N: Not Demonstrated		OH-RIMC--DDP-Brief	OH--FMTC-	OH--FMT#1--	OH--FMT#2--	OH--FMT#3--	OH--SSP--	OH-ODoH/Lab---	OH-FST DCO Brief	OH-FMTC-Day 2	OH-SSP-Day 2
Emergency Operations Management											
Mobilization	1a1		M	M	M	M				M	
Facilities	1b1										
Direction and Control	1c1										
Communications Equipment	1d1	M	M	M	M	M	M	M		M	M
Equipment and Supplies to Support Operations	1e1	M	M	M	M	M	M	M	M	M	M
Protective Action Decision Making											
EW Exposure Control Decisions	2a1										
PARs	2b1										
PADs	2b2										
PADs for Disabled/Functional Needs	2c1										
Ingestion PADs	2d1										
RRR Decisions	2e1										
Protective Action Implementation											
EW Exposure Control Implementation	3a1	M	M	M	M	M	M	M	M	M	M
KI Public/Institutionalized	3b1										
PAD Implementation Disabled/Functional Needs	3c1										
PAD Implementation Schools	3c2										
TACP Establishment	3d1										
Impediments	3d2										
Implement Ingestion PADs	3e1										
Coordination of RRR Decisions	3e2										
Coordination of RRR Decisions	3f1										
Field Measurement and Analysis											
RESERVED	4a1										
Field Team Management	4a2		M							M	
Field Team Operations	4a3			M	M	M	M				
Field Team Sampling	4b1										M
Laboratory Operations	4c1							M			
Emergency Notification and Public Info											
Initial Alert & Notification	5a1										
RESERVED	5a2										
Backup Alert & Notification	5a3										
Exception Area Alerting	5a4										
Subsequent Information & Instructions	5b1										
Support Operations/Facilities											
Reception Center Operations	6a1										
EW Monitoring & Decontamination	6b1										
Congregate Care	6c1										
Contaminated Injured Transport & Care	6d1										

Table 3.1 - Summary of Exercise Evaluation (Continued. page 3/7)

DATE: 2012-10-02 SITE: Perry Nuclear Power Plant, OH M: Met, A: ARCA, D: Deficiency, P: Plan Issue, N: Not Demonstrated		OH-FTC-Coordinator	State - FST - EPA	State - FST - ODA	State - FST - ODNR	OH-AR-IZRRAG	OH-ER-IZRRAG	OH-OR-IZRRAG	LAK-INP	LAK-EOC---	LAK-Lakeland CC-JIC--
Emergency Operations Management											
Mobilization	1a1		M	M	M				M	M	
Facilities	1b1										
Direction and Control	1c1	M				M	M			M	
Communications Equipment	1d1	M	M	M	M	M	M		M	M	M
Equipment and Supplies to Support Operations	1e1		M	M	M	M	M	M	M	M	
Protective Action Decision Making											
EW Exposure Control Decisions	2a1										
PARs	2b1										
PADs	2b2									M	
PADs for Disabled/Functional Needs	2c1									M	
Ingestion PADs	2d1					M	M				
RRR Decisions	2e1					P	M				
Protective Action Implementation											
EW Exposure Control Implementation	3a1	M	M	M	M					M	
KI Public/Institutionalized	3b1									M	
PAD Implementation Disabled/Functional Needs	3c1									M	
PAD Implementation Schools	3c2									M	
TACP Establishment	3d1									M	
Impediments	3d2									M	
Implement Ingestion PADs	3e1					M					
Coordination of RRR Decisions	3e2					M		M			
Coordination of RRR Decisions	3f1					M	M	M			
Field Measurement and Analysis											
RESERVED	4a1										
Field Team Management	4a2	M									
Field Team Operations	4a3										
Field Team Sampling	4b1		M	M	M						
Laboratory Operations	4c1										
Emergency Notification and Public Info											
Initial Alert & Notification	5a1									M	
RESERVED	5a2										
Backup Alert & Notification	5a3										
Exception Area Alerting	5a4										
Subsequent Information & Instructions	5b1						M	M		M	M
Support Operations/Facilities											
Reception Center Operations	6a1										
EW Monitoring & Decontamination	6b1										
Congregate Care	6c1										
Contaminated Injured Transport & Care	6d1										

Table 3.1 - Summary of Exercise Evaluation (Continued. page 4/7)

DATE: 2012-10-02
SITE: Perry Nuclear Power Plant, OH

M: Met, A: ARCA, D: Deficiency, P: Plan Issue, N: Not Demonstrated

		LAK-Painesville CSD-EV2-	LAK-Riverside SD - Sch Evac	LAK-SO-TACP/DCO Brief	LAK-Lke Co Shf. Office - TACP	LAK-FportHV FD - BURA - DCO Brief	LAK-Fairport Harbor VFD-Bkup Rte Alert	LAK-FMT-DCO Briefing	LAK-FMTC-	LAK-FMT#1--	LAK-FMT#2--
Emergency Operations Management											
Mobilization	1a1								M	M	M
Facilities	1b1										
Direction and Control	1c1										
Communications Equipment	1d1	M	M		M		M		M	M	M
Equipment and Supplies to Support Operations	1e1	M	M	M	M	M	M	M	M	M	M
Protective Action Decision Making											
EW Exposure Control Decisions	2a1										
PARs	2b1										
PADs	2b2										
PADs for Disabled/Functional Needs	2c1										
Ingestion PADs	2d1										
RRR Decisions	2e1										
Protective Action Implementation											
EW Exposure Control Implementation	3a1	M	M	M	M	M	M	M		M	M
KI Public/Institutionalized	3b1										
PAD Implementation Disabled/Functional Needs	3c1										
PAD Implementation Schools	3c2	M	M								
TACP Establishment	3d1				M						
Impediments	3d2										
Implement Ingestion PADs	3e1										
Coordination of RRR Decisions	3e2										
Coordination of RRR Decisions	3f1										
Field Measurement and Analysis											
RESERVED	4a1										
Field Team Management	4a2								M		
Field Team Operations	4a3									M	M
Field Team Sampling	4b1										
Laboratory Operations	4c1										
Emergency Notification and Public Info											
Initial Alert & Notification	5a1										
RESERVED	5a2										
Backup Alert & Notification	5a3						M				
Exception Area Alerting	5a4										
Subsequent Information & Instructions	5b1										
Support Operations/Facilities											

Reception Center Operations	6a1										
EW Monitoring & Decontamination	6b1										
Congregate Care	6c1										
Contaminated Injured Transport & Care	6d1										

Table 3.1 - Summary of Exercise Evaluation (Continued. page 5/7)

DATE: 2012-10-02 SITE: Perry Nuclear Power Plant, OH M: Met, A: ARCA, D: Deficiency, P: Plan Issue, N: Not Demonstrated		LAK-Mon/Decon of Evacs WFD - So HSch	LAK-WFD - So HSch - RC	LAK-WFD - S HSch - M/D Evac Veh	LAK-Mentor FD-EW DCO Briefing	LAK-Mentor FD-Mentor Cond Ctr-EWMD	LAK-Mentor Cond Ctr - Mentor FD-EWMDV-	LAK-South HS--CCC-ARC	LAK-MS-1 Trans-DCO Brief	LAK-Perry JFD-MS1T-	LAK-Lake West Md Ctr--MS1F-
Emergency Operations Management											
Mobilization	1a1										
Facilities	1b1										
Direction and Control	1c1										
Communications Equipment	1d1	M	M	M		M	M	M		M	M
Equipment and Supplies to Support Operations	1e1	M	M	M	M	M	M	M	M	M	M
Protective Action Decision Making											
EW Exposure Control Decisions	2a1										
PARs	2b1										
PADs	2b2										
PADs for Disabled/Functional Needs	2c1										
Ingestion PADs	2d1										
RRR Decisions	2e1										
Protective Action Implementation											
EW Exposure Control Implementation	3a1	M	M	M	M	M	M			M	M
KI Public/Institutionalized	3b1		M								
PAD Implementation Disabled/Functional Needs	3c1										
PAD Implementation Schools	3c2										
TACP Establishment	3d1										
Impediments	3d2										
Implement Ingestion PADs	3e1										
Coordination of RRR Decisions	3e2										
Coordination of RRR Decisions	3f1										
Field Measurement and Analysis											
RESERVED	4a1										
Field Team Management	4a2										
Field Team Operations	4a3										
Field Team Sampling	4b1										
Laboratory Operations	4c1										
Emergency Notification and Public Info											
Initial Alert & Notification	5a1										
RESERVED	5a2										
Backup Alert & Notification	5a3										
Exception Area Alerting	5a4										
Subsequent Information & Instructions	5b1										

Support Operations/Facilities											
Reception Center Operations	6a1	P		M			M				
EW Monitoring & Decontamination	6b1					M					
Congregate Care	6c1							M			
Contaminated Injured Transport & Care	6d1									M	M

Table 3.1 - Summary of Exercise Evaluation (Continued. page 6/7)

DATE: 2012-10-02 SITE: Perry Nuclear Power Plant, OH M: Met, A: ARCA, D: Deficiency, P: Plan Issue, N: Not Demonstrated		ASH-INP	ASH-EOC	ASH-Lakeland CC-JIC	ASH-Gen on the Lk Vill PD-TACP-Brief	ASH-Gen on the Lak Vill PD-TACP-Inter	ASH-Gen otL Vil FD-Bu Rt Alert-DCOBrief	ASH-Gen otl Vlge FD-Bkeup Rte/Al	ASH-CFD-CMS-Reception Center	ASH-Mon/Decon/Evacs-CFD	ASH-Conneaut FD-EvMDV
Emergency Operations Management											
Mobilization	1a1	M	M								
Facilities	1b1										
Direction and Control	1c1		M								
Communications Equipment	1d1	M	M	M		M		M	M	M	M
Equipment and Supplies to Support Operations	1e1	M	M		M	M	M	M	M	M	M
Protective Action Decision Making											
EW Exposure Control Decisions	2a1		M								
PARs	2b1										
PADs	2b2		M								
PADs for Disabled/Functional Needs	2c1		M								
Ingestion PADs	2d1										
RRR Decisions	2e1										
Protective Action Implementation											
EW Exposure Control Implementation	3a1		M		M	M	M	M	M	M	M
KI Public/Institutionalized	3b1		M						M		
PAD Implementation Disabled/Functional Needs	3c1		M								
PAD Implementation Schools	3c2		M								
TACP Establishment	3d1		M			M					
Impediments	3d2		M								
Implement Ingestion PADs	3e1										
Coordination of RRR Decisions	3e2										
Coordination of RRR Decisions	3f1										
Field Measurement and Analysis											
RESERVED	4a1										
Field Team Management	4a2										
Field Team Operations	4a3										
Field Team Sampling	4b1										
Laboratory Operations	4c1										
Emergency Notification and Public Info											
Initial Alert & Notification	5a1		M								
RESERVED	5a2										
Backup Alert & Notification	5a3							M			
Exception Area Alerting	5a4										
Subsequent Information & Instructions	5b1		M	M							

Support Operations/Facilities											
Reception Center Operations	6a1								M	M	M
EW Monitoring & Decontamination	6b1										
Congregate Care	6c1										
Contaminated Injured Transport & Care	6d1										

Table 3.1 - Summary of Exercise Evaluation (Continued. page 7/7)

DATE: 2012-10-02 SITE: Perry Nuclear Power Plant, OH M: Met, A: ARCA, D: Deficiency, P: Plan Issue, N: Not Demonstrated		ASH-Conn Middle School-CCC	GEA-INP	GEA-EOC---	GEA-Lakeland CC--JIC	GEA-OHP-Post #28-DCO Brief	GEA-OSHP-TACP	GEA-Notre Dame Cath Latin-Recpt Ctr	GEA-Notre Dame CL-Munson FD-EvD-	GEA-Notre Dame CL-Munson FD-EvMDV-	GEA-Notre Dame CL-ARC-CCC-
Emergency Operations Management											
Mobilization	1a1		M	M							
Facilities	1b1										
Direction and Control	1c1			M							
Communications Equipment	1d1	M	M	M	M		M	M	M	M	M
Equipment and Supplies to Support Operations	1e1	M	M	M		M	M	M	M	M	M
Protective Action Decision Making											
EW Exposure Control Decisions	2a1			M							
PARs	2b1										
PADs	2b2			M							
PADs for Disabled/Functional Needs	2c1			M							
Ingestion PADs	2d1										
RRR Decisions	2e1										
Protective Action Implementation											
EW Exposure Control Implementation	3a1			M		P	M	M	M	M	
KI Public/Institutionalized	3b1			M				M			
PAD Implementation Disabled/Functional Needs	3c1			M							
PAD Implementation Schools	3c2			M							
TACP Establishment	3d1			M			M				
Impediments	3d2			M							
Implement Ingestion PADs	3e1										
Coordination of RRR Decisions	3e2										
Coordination of RRR Decisions	3f1										
Field Measurement and Analysis											
RESERVED	4a1										
Field Team Management	4a2										
Field Team Operations	4a3										
Field Team Sampling	4b1										
Laboratory Operations	4c1										
Emergency Notification and Public Info											
Initial Alert & Notification	5a1			M							
RESERVED	5a2										
Backup Alert & Notification	5a3										
Exception Area Alerting	5a4										
Subsequent Information & Instructions	5b1			M	M						

Support Operations/Facilities											
Reception Center Operations	6a1							M	M	M	
EW Monitoring & Decontamination	6b1										
Congregate Care	6c1	M									M
Contaminated Injured Transport & Care	6d1										

3.3 Criteria Evaluation Summaries

3.3.1 Ohio Jurisdictions

3.3.1.1 State of Ohio - Initial Notification Point

The State of Ohio Initial Notification Point (INP) successfully demonstrated the Target Capability to use effective procedures to alert, notify, and mobilize emergency personnel and activate facilities in a timely manner. For the PNPP, the State of Ohio Initial Notification Point (INP) is the Ohio State Highway Patrol (OSHP) District 6 Dispatch and Communications Center located within the Ohio Emergency Management Agency (EMA). A secured, direct telephone line was the primary communications system between the PNPP and the INP. Commercial telephone and the Multi-Agency Radio Communications System (MARCS) served as redundant communication methods. The INP is staffed 24 hours a day, seven days a week to provide communications for the sixth district of the OSHP and other State agencies. In accordance with plans and procedures, initial notification calls are answered by the INP. Once the EOC Assessment Room was staffed that staff would assume the responsibility to answer incoming calls from PNPP and the INP will no longer be involved. A variety of primary and back-up communications systems were successfully demonstrated during the exercise.

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

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

3.3.1.2 State of Ohio - Emergency Operations Center - Executive Room

The State of Ohio Executive Group successfully demonstrated the Target Capability for key personnel with leadership roles to provide direction and control to that part of the overall response effort for which they are responsible, including the use of effective procedures to alert, notify and mobilize emergency personnel and activate facilities in a timely manner, sufficient multi-agency coordination to respond to an incident at the PNPP through timely activation,

effective management of the EOC, and staffing to an operational level. The Emergency Management Agency Executive Director provided effective management, direction and control throughout the exercise, coordinated decision-making with Ottawa and Lucas Counties and ensured that clear and consistent information was communicated to the public.

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

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

3.3.1.3 State of Ohio - Emergency Operations Center - Operations Room

The State of Ohio successfully demonstrated the Target Capability to receive notification of an incident occurring at the PNPP; to alert and notify response personnel; and to mobilize and activate their State Emergency Operations Center (EOC) operations room in a timely manner. The Ohio State Emergency Management Agency (OEMA) had the responsibility for emergency response in the State of Ohio during an incident at the PNPP.

The Ohio Emergency Management Agency (OEMA) coordinates and directs the response efforts from the State Emergency Operations Center State EOC at 2855 W. Dublin-Granville Road, Columbus, Ohio. During the exercise the State Emergency Operations Center (EOC) was separated into three main functional areas; the Executive Room (ER); the Assessment Room (AR) and the Operations Room (OR). The initial notification and mobilization of personnel for the AR and the ER were evaluated independent of the OR.

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

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

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

3.3.1.4 State of Ohio - Emergency Operations Center - Assessment Room

The State of Ohio Emergency Operations Center Assessment Room staff successfully demonstrated the Target Capability to demonstrate the decision-making process and appropriate coordination, to ensure that an exposure control system, including the use of Potassium Iodide (KI), was in place for emergency worker. This also included provisions to authorize radiation exposure in excess of administrative limits or protective action guides. The Dose Assessment Group Supervisor issued emergency worker dose limits and potassium iodide ingestion recommendations. The Dose Assessment Systems Operator used Controller-injected information from simulated Field Monitoring Team air samples to calculate a dose conversion factor, and the Dose Assessment Group Supervisor provided a Protective Action Recommendation (PAR) to the State Executive Group recommending the lowering of Emergency Worker Exposure Limits, and the Radiological Assessment Branch Director issued a recommendation for Field Teams and Emergency Workers in designated Sub-Areas to ingest KI.

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

a. MET: 1.a.1, 1.c.1, 1.d.1, 2.a.1, 2.b.1, 2.b.2, 2.c.1, 2.d.1, 4.a.2.
b. AREAS REQUIRING CORRECTIVE ACTION: None.
c. DEFICIENCY: None
d. PLAN ISSUES: 1.e.1.

ISSUE NO.: 47-12-1e1-P-01

CRITERION: Equipment, maps, displays, dosimetry, KI, and other supplies are sufficient to support emergency operations.

CONDITION: Some State and County emergency planning maps showed inconsistent boundaries separating Sub-Areas 1 and 3. The boundary between Sub-Area 1 and 3 is not the same on the State Evacuation Routes Map and Lake County Emergency Planning Zones Map for the Perry Nuclear Power Plant.

On the State Map the boundary is shown as running along Middle Ridge Road/County Highway 22 from Sub-area 2 on the east to the intersection with U.S.

Route 20.

On the Lake County map used in the EOC, the boundary runs from Sub-Area 2 on the east to Call Road/ County Highway 109, then south to the North Perry/Perry Village boundary, then west to U.S. Route 20.

The Lake County map shows Sub-area 1 running just outside the 2-mile EPZ on the south. The State map shows Sub-Area 3 as including part of the 2-mile EPZ on the north. i.e., as including part of Sub-Area 1 as depicted on the Lake County map.

POSSIBLE CAUSE: Differing versions maps showing sub-area boundaries were created by different authors at different times.

REFERENCE: NUREG-0654 - H.7,10; I.7,8,9; J.10.a,b,e; J.1,12; K.3.a; K.5.b.
State of Ohio Evacuation Routes Map for the Perry Nuclear Power Plant dated 2008.
Emergency Planning Zones Map for the Perry Nuclear Power Plant - no date.

EFFECT: The map discrepancy could cause confusion regarding evacuation instructions given to the public.

RECOMMENDATION: The State and Lake County maps used to depict the boundary between Sub-Areas 1 and 3 for the Perry Nuclear Power Plant should be reconciled to show the same Sub-Area boundary.

SCHEDULE OF CORRECTIVE ACTIONS:
A review of the maps in question revealed that the State map was in error, not the County map. Map corrections will be completed no later than February 28, 2013.

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

3.3.1.5 State of Ohio - Emergency Operations Center - Joint Information Center

The State of Ohio Emergency Operations Center (EOC) successfully demonstrated the Target Capability to provided accurate information to the public and news media in a timely manner and with a sense of urgency via the Public Information Officer (PIO). The State EOC JIC was primarily tasked with the coordination and preparation of State of Ohio news releases, which included all required information. News media briefings were conducted at the Lakeland Community College JIC rather than the State EOC JIC. State Information Packets on the PNPP were available and included contact information and information about responsibilities of the State of Ohio, the four ECLs, actions taken after a State of Emergency is declared by the Governor, siren activation and appropriate individual response, sheltering-in-place, evacuation, and the State of Ohio plan for the distribution and use of potassium iodide (KI).

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

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

3.3.1.6 State of Ohio - State Joint Information Center -Perry Nuclear Power Plant - lakeland Comunity College

The Joint Information Center (JIC) successfully demonstrated the Target Capability to provided accurate, timely, and useful information to the News Media and public through the FirstEnergy Nuclear Operating Company's Joint Information Center (JIC). The State EOC and Lake, Ashtabula, and Geauga Counties Public Information Officers (PIOs) used effective procedures to alert, notify, and mobilize emergency personnel and activate the facility in a timely manner. Key personnel with leadership roles provided direction and control and ensured that emergency information and instructions were presented to the public and the News Media in a timely manner. The Joint Information Center Media Briefing Team conducted pre-briefings to prepare for each media briefing. Several mock media representatives (Licensee employees) provided a realistic barrage of increasingly penetrating questions, all of which were appropriately handled and answered by the respective agency participants. Rumor control and media monitoring

functions were conducted, and calls were logged, trends were identified, and the JIC Manager addressed them as appropriate in the media briefings.

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

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

3.3.1.7 State of Ohio - Perry Nuclear Power Plant Joint Information Center - Public Inquiry Hotline - Lakeland Community College

The State of Ohio, in addition to personnel from FirstEnergy Nuclear Operating Company (FENOC) and Lakeland Community College, successfully demonstrated the Target Capability to establish and operate the Public Inquiry Hotline in the Joint Information Center (JIC). The demonstration was conducted in the JIC located at Lakeland Community College, 7700 Clocktower Drive, Mentor, Ohio. The public was instructed to call the Public Inquiry Hotline's (800) number with their questions and concerns. This 800 number is publicized in the State of Ohio news releases and public information material distributed throughout the year. An informational contact number was also provided by Lake County in their news releases. The Media reported individual questions and trends to the Public Inquiry Group Leader in order for the questions to be answered directly by Public Inquiry staff or communicated to the JIC Management to be addressed in either a media briefing or news release. Four local television stations and multiple local radio stations were also monitored for informational trends and rumors.

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

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

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

3.3.1.8 State of Ohio - Emergency Operations Facility

The Ohio Department of Health (ODH) and the Ohio Emergency Management Agency (EMA) Emergency Operations Facility (EOF) Liaisons successfully demonstrated the Target Capability to issue appropriate dosimetry and procedures and manage radiological exposure to emergency workers in accordance with plans and procedures. They also read and record dosimetry readings on a periodic basis. The EOF Liaisons had sufficient potassium iodide (KI) and appropriate KI instructions, and demonstrated appropriate record keeping for the administration of KI for emergency workers should a decision be made to ingest KI.

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

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

3.3.1.9 State of Ohio - Lake County Emergency Operations Center - State Radiological Analyst

The State of Ohio Radiological Analyst stationed in the Lake County Emergency Operations Center (EOC) successfully demonstrated the Target Capability to support the County's decision-making process for ensuring that relevant factors were considered and appropriate coordination between the State and County occurred, an exposure control system, including the use of potassium iodide (KI), was in place for emergency workers, and that provisions were in place to authorize radiation exposure in excess of administrative limits or protective action guides. He also ensured that appropriate protective action recommendations were based on available information on plant conditions, field monitoring data, licensee and offsite response organization dose projections, and knowledge of onsite and offsite environmental conditions.

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

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

3.3.1.10 State of Ohio - Department of Natural Resources - Lake Erie Primary Alert and Notification Dosimetry Control Officer Briefing

The Ohio Department of Natural Resources (ODNR) successfully demonstrated the Target Capability to implement Exposure Control to trained personnel and emergency workers during the briefing. Each crew member had been briefed in accordance ODNR Division of Watercraft clearance checklist. Prior to launching each member would received appropriate briefings and kits. Prior to their launching, each crew member physically zeroed their direct-reading dosimeters. Additionally, all aspects of monitoring their devices and recording the information had been addressed in the period before their launch including emergency worker maximum and turn back limits. The supervisor emphasized during his briefing the requirement to check their direct reading dosimeters every 30 minutes or as directed; then record and report those readings back to the supervisor. He reiterated numerous times that they were not to exceed 5 R and if they did and couldn't reach the supervisor, they were to leave the area and continue to try to contact the supervisor. Pre-launch briefings also included procedures for taking the KI and reporting requirements plus crews were warned of the inherent dangers or side effects and the preclusion of individuals under 18 or pregnant. Each boat has four KI packets on board. The checklist used also served as the briefing format.

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

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

3.3.1.11 State of Ohio - Department of Natural Resources- Lake Erie Primary Alert and Notification

The Ohio Department of Natural Resources (ODNR) successfully demonstrated the Target Capability to alert and notify the public on Lake Erie in a timely manner following the decision to notify the public of an emergency situation.

The demonstration/interview was conducted at the ODNR Division of Watercraft. Through interview, it was noted that the State has capability to notifiy the public on Lake Erie, within the 10-mile EPZ through the U.S. Coast Guard with the support of the Ohio Department of Natural Resources' Division of Watercraft. Supporting notification to the Division of Watercraft would occurr through contact with Ashtabula County Emergency Management Agency (EMA) Emergency Operations Center. ODNR In the event that a General Emergency is declared, Division of Watercraft crews would be deployed and stationed at the Site Area Emergency (SAE) Emergency Classification Level (ECL). Notification of boaters on the lake would coincided with the county's use of the siren sounding alert on shore and ODNR would utilize a Boating Advisory. The Boating Advisory contained the required information regarding reason for the evacuation, who has declared it and instructions for the boater on how to get information and where to house their boat. The pattern of search and delivery of Boating Advisory was a system developed by U.S. Coast Guard that guided emergency responders boats called "Expanding Square Search". This guided system enables monitoring of equipped boats over the area designated for search and rescue and is also used for the purpose of notification.

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

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

3.3.1.12 State of Ohio - RIMC Facility - Dosimetry Distribution Point - Briefing

The State of Ohio Emergency Management Agency Successfully demonstrated the Target Capability to implement emergency worker exposure control for State field monitoring team members. The demonstration was conducted at the Radiological Institute Maintenance & Calibration (RIMC) Facility.

During the dosimetry and KI briefing, the Acting Dosimetry Coordinator informed the FMT members that DRDs would be zeroed at the staging area. Team members were informed that their exposure limit was 5 rem Total Effective Dose Equivalent (TEDE). The turnback value associated with this was a reading of 1R on their DRDs. Field team members were reminded to check their dosimeter readings every 30 minutes, and to report any readings to their Dosimetry Coordinator. Once deployed into the field, the Dosimetry Coordinator would be their Field Team Monitoring (FMT) Coordinator. At the end of their assignment, FMT members would report to an emergency worker monitoring and decontamination center, where they would turn in their dosimetry. Team members were instructed on the use of the KI issued with their dosimetry packet. Allergic reactions were discussed, and team members were told not to ingest KI unless instructed to do so by the Ohio Department of Health. This order would be transmitted to them by their FMT Coordinator. The back of the Dosimetry Report Form has all the information covered in the briefing. Similarly, the KI package insert included with the KI tablets has all the required precautionary and use information for KI.

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

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

3.3.1.13 State of Ohio - Field Monitoring Team Coordinator

The State of Ohio Field Monitoring Team Coordinator (FMTC) successfully demonstrated the Target Capability to manage three State Field Monitoring Teams (FMTs) and to obtain sufficient information to help characterize the release and to control radiation exposure. The State FMTC simulated three State FMTs making traverses north and south across the projected plume centerline. State FMT 1 (Unit 13) traversed between Reference Point Locations D5 (Lake Road [Ashtabula County] stream crossing, 0.3 mile west of Deer Lake Public Golf Course) and F6 (6827 South River Road (Ashtabula county), 0.3 mile west of Atkins Road). State FMT 2 (Unit 14) traversed between Reference Point Locations D3 (Lake Erie at Madison-on-the-Lake Township Park on Hubbard Road) and F4 (7666 Warren Road, [State Route 307], 0.3 mile west of County Line Road). State FMT 3 (Unit 15) traversed between Reference Point Locations C1 (Lake Erie at North Perry Village Park on Lockwood Road) and H1 (3699 Call Road stream crossing 0.2 mile north of Davis Road).

The State FMTC recorded the following State FMT 3 (Unit 15) air sample results at 1335 hours. The location of the sample was latitude 41 degrees, 48 minutes, and 4.7 seconds north and longitude 81 degrees, 7 minutes, 29.8 seconds west. The sample flow rate was 30 liters per minute for 10 minutes for a total sample volume of 300 liters. The net count rates for the silver zeolite cartridge and particulate filter were 119 counts per minute (cpm) and 0 cpm, respectively. Radiation levels at that location were 1.0 milliroentgen per hour (mR/hr) and 0.5 mR/hr, respectively. At 1350 hours, the State FMTC provided these sample results to the State of Ohio Department of Health (ODH) Assessment Group at the State EOC by telephone.

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

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

3.3.1.14 State of Ohio - Field Monitoring Team #1

The State of Ohio Field Monitoring Team 1 (FMT 1) successfully demonstrated the Target Capability of ambient radiation measurements and air sample collection. Stationary dose rate surveys were performed with the Ludlum Model 2241-3 using the HP-270 Beta-Gamma Teletrix TXP-2 probe. Surveys were conducted at waist level and ground level with the beta window open and the beta window closed. Results were recorded on the "Field Monitoring Team Log Sheet".

The air sampler was started and programmed to collect a volume of 300 liters. During air sample collection, surveys were conducted at the beginning, middle, and end of the air sampling period to ensure that the plume had not shifted during air sampling collection. Silver zeolite cartridges and paper filters were used as sample media. All data was documented on the "Field Monitoring Team Log Sheet". Following the demonstration, the team donned double gloves and purged the air sample for a volume of 10 liters. They removed one set of gloves then connected the bagged SPA-3 probe to the Ludlum 2241-3 meter. They obtained a background count and performed a one minute count on the cartridge, using a counting jig, with net results of 102 counts per minute (per controller inject). A similar method was used to count the particulate filter. The HP-210 probe was connected to the Ludlum 2241-3 meter. They obtained a background count and performed a one minute count on the filter, using a counting jig, with net results of 0 counts per minute (per controller inject). The team bagged both samples separately and completed two "Ohio Department of Health – Radiation Protection Sample and Laboratory Data Sheets". The form contained information for the sample point location, air sample times, air sample flow rate, air sample volume, filter results, cartridge results, and custody transfer. The samples were then transferred to the Sample Courier and all results were transmitted via radio to the State FMTC.

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

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

3.3.1.15 State of Ohio - Field Monitoring Team #2

The State of Ohio Field Monitoring Team 2 (FMT 2) successfully demonstrated the Target Capability to make and record ambient radiation measurements at appropriate locations and to collect radioiodine and particulate samples. State FMT 2 also demonstrated the ability to move to an appropriate low background location to determine whether any significant amount of radioactive had been collected on the sampling media. The demonstration was conducted during an out-of-sequence activity on Monday October 1, 2012 from approximately 1000 hours to 1530 hours, starting at the Lake County Emergency Operations Center (EOC) at 8505 Garfield Road in Mentor, Ohio.

Throughout the sampling and counting process, the team used appropriate contamination control procedures including wearing gloves, properly bagging the samples, and disposal of potentially contaminated materials.

All sample data was recorded on the Field Monitoring Team Log Sheet and reported to the State FMTC. Also, in order to maintain chain-of-custody, the team completed a Sample and Laboratory Data Sheet for each sample. The data sheets were bagged and delivered to the Sample Courier also located in the Lake County EOC parking lot. The field team member signed the "relinquished by" space on each form and the Sample Courier signed the "received by" space on each form which completed the chain of custody process for the State FMT 2.

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

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

3.3.1.16 State of Ohio - Field Monitoring Team #3

The State of Ohio Field Monitoring Team 3 (FMT 3) successfully demonsrated the Target Capabiloty to measure and record ambient radiation levels and collect radioiodine and particulate airborne samples at appropriate locations. When informed that a release of radioactivity had occurred at PNPP, State FMT 3 was directed to transverse to Reference Location Point H1 and back to C1 searching for the plume. The initial indication of the plume was identified by an increase in radiation readings on the auto ranging area dosimeter in the audible mode on the dash of the van. In accordance with Emergency Operations Procedure 358, State FMT 3 traversed until the highest radiation level in the plume was located. At the location of the highest radiation level, State FMT 3 used a Ludlum 2241-3 and a HP 270 probe to verify they were immersed in the plume.

All results were observed to be properly recorded and transmitted via radio to the State FMTC. State FMT 3 was directed to deliver the particulate and charcoal filter to the Sample Courier at the Lake County Emergency Operations Center. A multi-page form, unique sample numbers and signatures was used to record sample information and provide for a secure chain of custody.

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

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

3.3.1.17 State of Ohio - Sampling Screening Point

The State of Ohio succcessfully demonstrated the Target Capability to perform plume phase field measurements and analysis. The demonstation began by setting up a sample screening station in an outdoors setting adjacent to the Lake County General Health District office building. An adequate work area for receiving and monitoring samples, documenting and packing sample for shipment to a laboratory, and storage of sample waiting transport were established. The State MARCS 800 MHz radio system was available for transmitting information about the sample was available but the station was not tasked with analysis, only screening for contamination and safe

transport. All data about the samples were recorded on hard copy forms that stayed with the sample.

Protective clothing was effectively used by sample screeners and good contamination control was observed. The sample bag was then passed to the sample management table where it was logged in and tracking forms were filled out. The Ohio Department of Health – Radiological Health Unit, Sample and Laboratory Data Sheet was reviewed. This form included a section for chain-of-custody that showed the appropriate signatures, dates, and times from sample acquisition to receipt by screening station staff. At 1630 hours the Sample Courier was properly monitored for contamination on his person and cleared to leave the screening station boundary.

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

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

3.3.1.18 State of Ohio - Ohio Department of Health - Laboratory

The State of Ohio Department of Health (ODH) Laboratory successfully demonstrated the Target Capability to perform required radiological analyses to support protective action decisions. The demonstration was conducted at the ODH Radiological Laboratory.

Laboratory instruments used for reactor accident analysis were calibrated annually or as specified by the manufacturer using National Institute of Standards (NIST) standards. Analytics Corporation provides the laboratory with a Certificate of Calibration demonstrating NIST compliance for the geometries that are purchased. The geometries for which NIST standards were available included a 3.8 liter solid in a polypropylene beaker, a one liter solid in a polypropylene beaker, a one liter simulated vegetation beaker, a 130 milliliter simulated soil beaker, a 140 milliliter simulated vegetation beaker, a face-loaded charcoal cartridge, and a 47 millimeter membrane filter. The two Canberra Industries high purity germanium detectors (Detectors #1 and #3) and one Nuclear Data Corporation high purity germanium detector (Detector #2) used for reactor accident analysis were calibrated within a year (August 2012) for

the above stated geometries. A current background file was used in the calculations taken on the day of calibration. Current efficiency files were also available.

Chain-of-custody was part of the Sample and Laboratory Data Sheet form. The chain-of-custody included the signature, date, and time the sample was relinquished, and the signature, date, and time the sample was received. This ensured sample integrity was maintained.

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

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

3.3.1.19 State of Ohio - Field Sampling Team - Dosimetry Control Officer Briefing

The Ohio Environmental Protection Agency (EPA) Dosimetry Control Officer (DCO) successfully demonstrated the Target Capability to issued appropriate dosimetry, instructions, and procedures and managed radiological exposure to EPA Occupational Workers during Field Sampling.

The DCO verified that in accordance with the EPA plan, each Ingestion Phase Field Sampling Technician had been issued a 0-200 mR CD-V 138 Direct Reading Dosimeter (DRD), a 0-20 R Arrow Tech DRD, a 0-200 R CD-V 742 DRD and a Canberra Ultra Radiac Electronic Dosimeter. The DCO verified that each technician was issued a Global Dosimetry Corporation TLD in May of 2012 due for replacement in May of 2013. The DCO used the Ohio EPA Field Sampling Team (FST) Briefing Procedure, maps of the Emergency Planning Zone showing entry points and locations to be sampled, the Ingestion Zone Recovery and Reentry Advisory Group Operations manual, and the OEPA Radioactive Sampling Guidelines for sampling of Soil Water, Vegetation and Snow to conduct the FST briefing. The DCO briefed the FSTs to ensure the dosimeters were all zeroed, to read them every 15 to 30 minutes and to report the dosimeter readings to the Dosimetry Coordinator. The DCO reminded the FSTs that the turn back dose rate was 5 R/hr and their administrative dose limit was 1 REM which was sufficiently low to prevent exceeding the Total Effective Dose Equivalent limit of 5 REM. Field Sampling Teams

are Occupational Workers not Emergency Workers and did not enter the Plume so potassium iodide (KI) was not issued.

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

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

3.3.1.20 State of Ohio - Field Monitoring Team Coordinator - Day 2

The State of Ohio Field Monitoring Team Coordinator (FMTC) on day 2 of the PNPP Exercisr successfully demonstrated the Target Capability to manage field team sampling during the Ingestion Phase of the response.

The State Field Team Center (FTC) Coordinator was in charge of directing the FSTs for collection of the post-plume phase samples. The participants on the FSTs originated from three State of Ohio agencies: the Ohio Department of Agriculture (ODA), the Ohio Department of Natural Resources (ODNR), and the Ohio Environmental Protection Agency (OEPA). Each agency team included a Field Sampling Team (FST) Coordinator as well, who communicated with their FSTs during the sample collection process. The FTC Coordinator provided a thorough staff briefing that included a description of the Restricted Zone (RZ) using a plotted map, estimated exposure levels within the RZ, established and manned Entry Points, Monitoring and Decontamination Center locations, and the location of the Sample Screening Point (SSP). Each of the agency personnel were required to complete the FTC Agency Sign-in Log. All four teams were required to complete the Sampling Team Dispatch Form, which gave them instruction on the sample site location and type of sample taken. The forms were signed and copies were distributed. Following the completion of the Sampling Team Dispatch Form, the FTC Coordinator issued a State of Ohio Restricted Zone Pass to each of the four teams and logged the passes on the Field Team Center Emergency Vehicle Pass Log. The FTC Coordinator then ensured that all the Dispatch Forms, Sample and Data Sheets, and RZ Passes were signed and completed. He then collated the forms and requested the Communicator to send the forms by facsimile to the IZRRAG. The FTC Coordinator was very organized and managed the team

effectively to perform the assigned tasks.

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

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

3.3.1.21 State of Ohio - Sampling Screening Point - Day 2

As part of the Perry Nuclear Power Plant (PNPP) Ingestion Pathway Radiological Emergency Preparedness Exercise, the State of Ohio demonstrated the Target Capability to collect appropriate samples in support of assessment and protective action decision-making activities during the Ingestion Phase response. The Sample Screening Point (SSP) demonstration was conducted during an out-of-sequence activity at the Lake County General Health District Office.

Sample collection was directed by the Ingestion Zone Recovery and Re-entry Advisory Group (IZRRAG). The Ohio Department of Health (ODH), Bureau of Radiation Protection was responsible for screening the samples at the SSP. Their mission was to pre-screen the samples and process them to meet the ODH Laboratory sample acceptance criteria and maintain chain-of-custody.

The SSP had three processing areas: a Sample Receiving and Survey Area (SRSA), a Sample Management Area (SMA), and a Radioactive Material Area (RMA) for storage. Samples were sorted by processing type and handled in accordance with established procedures. Once fully processed, samples were scheduled for delivery by courier to the Ohio Department of Health Laboratory in Columbus, and the "Sample Shipping Form" - which documented chain-of-custody - was completed in accordance with procedures. No Federal assets were used in the demonstration.

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

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

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

3.3.1.22 State of Ohio - Field Team Center Coordinator

The State of Ohio Field Team Center Coordinator (FTCC) successfully demonstrated the Target Capability to manage three State Field Monitoring Teams (FMTs) to obtain sufficient information to help characterize the release and to control radiation exposure. The exercise was conducted in the Lake County Emergency Operations Center (EOC), located at 8505 Garfield Road in Mentor, Ohio.

The State FTCC simulated three State FMTs making traverses north and south across the projected plume centerline. State FMT 1 (Unit 13) traversed between Reference Point Locations D5 (Lake Road [Ashtabula County] stream crossing, 0.3 mile west of Deer Lake Public Golf Course) and F6 (6827 South River Road (Ashtabula county), 0.3 mile west of Atkins Road). The State FTCC recorded the following State FMT 3 (Unit 15) air sample results at 1335 hours. The location of the sample was latitude 41 degrees, 48 minutes, and 4.7 seconds north and longitude 81 degrees, 7 minutes, 29.8 seconds west. The sample flow rate was 30 liters per minute for 10 minutes for a total sample volume of 300 liters. The net count rates for the silver zeolite cartridge and particulate filter were 119 counts per minute (cpm) and 0 cpm, respectively. Radiation levels at that location were 1.0 milliroentgen per hour (mR/hr) and 0.5 mR/hr, respectively. At 1350 hours, the State FMTC provided these sample results to the State of Ohio Department of Health (ODH) Assessment Group at the State EOC by telephone.

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

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

g. PRIOR ISSUES - UNRESOLVED: None

3.3.1.23 State of Ohio - Field Sampling Team - EPA

The State of Ohio Environmental Protection Agency (EPA) Field Sampling Team 1 (FST1) successfully demonstrated their Target Capability to make appropriate measurements and to collect appropriate soil and water samples that support adequate assessments and Protective Action Decisions.

After an extensive briefing from the Field Team Center Coordinator and the Dosimetry Control Officer, FST1 was issued a Sampling Team Dispatch Form describing the exact location to be sampled and the shortest route into and out of the Restricted Zone. Each Ingestion Phase FST technician was issued a 0-200 mR CD V - 138 Direct Reading Dosimeter (DRD), a 0-20 R Arrow-Tech DRD, a 0-200 R CD V - 742 DRD, and a Canberra Ultra Radiac Electronic Dosimeter. All dosimeters had been calibrated and leak tested in May 2012 and due for recalibration/leak testing in May 2013. Each technician was issued a Global Dosimetry Corporation TLD in May 2012 due for replacement in May 2013. They were briefed to minimize their time in the Restricted Zone. At the first sample location, FST1 obtained a soil sample by excavating soil from an area 10 centimeters (cm) by 10 cm by 2 cm deep. Team FST1 completed the Sample Submission Form and label. Then, they reported their exposure to the Field Sample Coordinator and notified him that they were proceeding to the second sample location. The second sample location was simulated at 13 miles from the PNPP boundary with radiation levels at one meter of 9 µR and 18 µR at one inch. Team FST1 completed the Sample Submission Form and reported their radiation exposure to the Field Sample Coordinator. Team FST1 demonstrated good contamination control and proper donning and doffing of the gloves and shoe covers.

All results were observed to be properly recorded and transmitted via radio to the FST Coordinator. Team FST1 was directed to deliver the soil and water samples to the Sample Screening Point at the Field Team Center. A multi-page Sample and Laboratory Data Sheet, unique sample numbers, and signatures were used to maintain a secure chain-of-custody.

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

a. MET: 1.a.1, 1.d.1, 1.e.1, 3.a.1, 4.b.1.
b. AREAS REQUIRING CORRECTIVE ACTION: None

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

3.3.1.24 State of Ohio - Field Sampling Team - ODA

The State of Ohio Department of Agriculture (ODA) Field Sampling Team successfully demonstrated the Target Capability to collect samples of crops, milk, and vegetation to support adequate assessments and protective action decision-making.

The team was dispatched to obtain milk samples from three locations, one vegetation sample, and two food samples. The milk and dairy sample sub-team traveled by ODA vehicle to the Lake Metropark Dairy and obtained a raw milk sample from the dairy's bulk milk tank at 1130 hours. The sampling technicians were trained dairy inspectors who routinely take milk samples in Lake County and were familiar with this dairy and other dairies in the County. The sample was collected by dipping the raw milk from the bulk tank with a properly sanitized stainless steel dipper into a one gallon cubitainer from the sampling equipment kit. The vegetation sample was taken from a sweet gum tree outside the LCGHD office building at 1245 hours. The sampling technicians were ODA pesticide surveillance program personnel who routinely take samples for chemical residue analysis. The one kilogram sample was properly bagged and sealed, and marked or labeled in accordance with ODA procedures. The sample was processed through the sample screening area. The food crop sample was simulated. Two bags of apples were obtained from a commercial source. The apples were double-bagged and sealed, and marked and labeled in accordance with the ODA procedures at 1330 hours. The samples were processed through the sample screening area for transport to the Ohio State Laboratory.

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

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

g. PRIOR ISSUES - UNRESOLVED: None

3.3.1.25 State of Ohio - Field Sampling Team - ODNR

The State of Ohio Department of Natural Resources (ODNR) Field Sampling Team (FST) successfully demonstrated the Target Capability to collect appropriate samples to support adequate assessments and protective action decision-making. To obtain samples, the team used electro-fishing equipment that sent pulsed direct current through the water to stun the fish. A boom extended from the boat served as the anode while the aluminum hull of the boat served as the cathode, completing the circuit. At 1110 hours, the booms were extended and the equipment was pulsed. Approximately ten fish surfaced. The team member netted a largemouth bass for sampling purposes. He then filleted the fish and doubled the fillets. After the fish was bagged, a Sample and Laboratory Data Sheet was completed for the sample for identification and chain-of-custody purposes. The double-bagged fillets were sealed in a third bag with the form and the package was placed in an ice chest. By 1132 hours, the boat was out of the water and secured on the trailer and the team departed for the LCGHD office.

The team proceeded to the screening station with the sample. The sample was surveyed to ensure that no contamination was present The field team member signed the "relinquished by" space on each form and the Sample Screener signed the "received by" space on the form which completed the chain-of-custody process for the ODNR FST. Throughout the sampling process, the team used appropriate contamination control procedures including wearing gloves, properly bagging the sample, and disposal of potentially contaminated materials.

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

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

3.3.1.26 State of Ohio - Assessment Room - IZRRAG

The Ingestion Zone Recovery and Reentry Group (IZRRAG) successfully demonstrated the Target Capability of direction and control for that part of the overall response for which the assessment group was responsible. The Ingestion Pathway Exercise was conducted in a modified tabletop format with initial conditions and deposition information provided by a facilitator and supplemented by a representative of the Federal Radiological Monitoring and Assessment Center (FRMAC) representative. The exercise began at 0800 hours with a briefing on incident status. The FRMAC advance party checklist was reviewed as part of the incident status. It was noted that the ingestion pathway demonstration included data that was independent of the plume demonstration on October 2, 2012.

Throughout the tabletop exercise, the IZRRAG Chair held frequent update briefings (every 45-60 minutes). He effectively used his procedure and checklists to ensure procedural requirements were completed. He encouraged discussion and input from both State and Federal participants. He made assignments and verified their completion, including checking the sample location log to ensure that field soil and agricultural sample locations were tracked. The IZRRAG Chair asked informed questions and demonstrated an understanding of appropriate ingestion phase priorities, dose assessment methodology and implementation procedures to protect both the public and recovery workers. All ingestion phase recommendations were communicated to the Counties via the executive group.

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

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

ISSUE NO.: 47-12-2e1-P-02

CRITERION: Timely post-plume phase relocation, reentry, and return decisions are made and coordinated as appropriate, based on assessments of radiological conditions and criteria in the ORO's plan and/or procedures.

CONDITION: Ingestion Zone Recovery and Reentry Group (IZRRAG) procedures

and Radiological Assessment Branch Director Procedure 350, dated 4/4/2012, do not provide detailed direction regarding how to design ingestion and deposition soil/vegetation sampling plans to ensure the plume disposition area is fully characterized.

POSSIBLE CAUSE: Post-plume actions in procedures are used infrequently and may not have been thoroughly reviewed.

REFERENCE: REP Program Manual dated April 2012 Criterion 2.e.1 – "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 Criterion I.10 – "Each organization shall establish means for relating the various measured parameters (e.g., contamination levels, water, and air activity levels) to dose rates for key isotopes and gross radioactivity measurements. Provisions shall be made for estimating integrated dose from the projected and actual dose rates and for comparing these estimates with the protective action guides. The detailed provisions shall be described in separate procedures."

EFFECT: If the deposition area is not correctly characterized, an inaccurate Derived Intervention Level (DRL) may be calculated. If the Restricted Zone boundary is established on an incorrect DRL, individuals may be relocated when they do not need to be, or allowed to remain in their homes when they should have been relocated. Additionally, inaccurate sampling plans for crops, milk and food products could delay calculation of an accurate ingestion pathway control area.

RECOMMENDATION: Update appropriate IZRRAG and Intermediate Phase procedures so sampling plan is developed to fully characterize the isotopic mix of the plume deposition. Consider the recommendations found in FRMAC Monitoring Division Manual, Volume 1, describing factors to consider when developing monitoring and sampling plans.

SCHEDULE OF CORRECTIVE ACTIONS:
The State of Ohio will direct the IZRRAG member agencies to review and, as

appropriate, revise their procedures to provide better guidance for sampling plan development. These changes will be implemented no later than March of 2014.

ISSUE NO.: 47-12-2e1-P-03

CRITERION: Timely post-plume phase relocation, reentry, and return decisions are made and coordinated as appropriate, based on assessments of radiological conditions and criteria in the ORO's plan and/or procedures.

CONDITION: State Dose Assessment Systems Operator Procedure 352, dated 4/5/2012, does not provide a technical description or basis for the deposition sample calculations for 1st, 2nd, and 50-year dose and the subsequent Derived Response Level (DRL). The current procedure instructs the Dose Assessment Systems Operator to input isotopic information into the appropriate Excel spreadsheet or RASCAL. State Dose Assessment Personnel were unable to reference a procedure or document with the technical basis for the Excel spreadsheet calculations. It was noted that during the exercise, the DRLs calculated using the Excel spreadsheet were much lower that those provided in the scenario even though the same sample results were used in the calculations.

POSSIBLE CAUSE: Formulas in the "Intermediate Phase Relocation Worksheet (Method 2.2 FRMAC Assessment Manual)" appeared to be from a previous version of the FRMAC Assessment Manual methodology. The spreadsheet may not have been reviewed and updated when the FRMAC Manual was revised.

REFERENCE: REP Program Manual dated April 2012 Criterion 2.e.1 – "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 Criterion I.10 – "Each organization shall establish means for relating the various measured parameters (e.g., contamination levels, water, and air activity levels) to dose rates for key isotopes and gross radioactivity measurements. Provisions shall be made for estimating integrated dose from the projected and actual

dose rates and for comparing these estimates with the protective action guides. The detailed provisions shall be described in separate procedures."

EFFECT: If out-of-date calculation assumptions and formulas are used, an inaccurate Derived Intervention Level (DRL) may be calculated.

The State of Ohio will direct the IZRRAG member agencies to review and, as appropriate, revise their procedures to provide better guidance for sampling plan development. These changes will be implemented no later than March of 2014.

RECOMMENDATION: Update appropriate assessment group and Intermediate Phase procedures to ensure that the technical basis of the Intermediate Phase Relocation Worksheet is provided. Also, require the Assessment Group to ensure that the worksheet and formulas are up-to-date prior to use.

SCHEDULE OF CORRECTIVE ACTIONS:
The State of Ohio will direct the IZRRAG member agencies to review the sample processing methods and procedures and determine which process best meets the needs of the IZRRAG. Once this is determined, appropriate changes will be made to the affected procedures. This process will be completed no later than March of 2014.

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

3.3.1.27 State of Ohio - Executive Room - IZRRAG

The State of Ohio Emergency Operations Center (EOC) demonstrated the Target Capabilities to provide direction and control, make ingestion Protective Action Decisions (PADs), coordinate Relocation, ReEntry and Return (RRR) decisions and provide subsequent information and instructions to the public in support of the response effort. The Emergency Management Agency Executive Director (Director) was responsible for emergency response on behalf of the Governor and provided direction to the Ingestion Zone/Recovery and Re-entry Advisory Group (IZRRAG), consisting of representatives from the Ohio Departments of Health, Agriculture, and Natural Resources, the Ohio Emergency Management Agency, and the Ohio Environmental Protection Agency. The IZRRAG made protective recommendations to the Director which were

discussed with the Executive Group staff and and the counties for concurrence. All decisions were made in a timely manner.

The IZRRAG representative proposed a restricted zone based on grid surveys. This restricted zone boundaries and map were discussed with the counties. The counties suggested slight changes to the restricted zone, which would allow them to provide better access control. Re-entry Verification and Orientation Centers (REVOCs) would be set up and staffed by the counties.

Based on sample results and AMS flyover data, the IZRRAG representative return return of the public to portions of Subareas 3, 5 and 6. The counties were called, and concurred with the PAR The county stated they would movethe REVOC to adjust for the new restricted area. Restoration of services would be handled by the counties.

The SEOC Public Information Officer (PIO) attended each briefing in the Executive Room and prepared and obtained approval for numerous simulated media releases.

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

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

3.3.1.28 State of Ohio - Operations Room - IZRRAG

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

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

3.3.2 Risk Jurisdictions

3.3.2.1 Lake County - Initial Notification Point

The Lake County Sheriff Dispatch Center, demonstrated the Target Capability of Emergency Operations Center Management as the Lake County Initial Notification Point for radiological incidents occurring at Perry Nuclear Power Plant (PNPP). The County Sheriff dispatcher used appropriate procedures to accurately record information received from PBNP and accurately relayed that information to the Lake County Emergency Manager. A variety of primary and back-up communications systems were demonstrated during the exercise.

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

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

3.3.2.2 Lake County - Emergency Operations Center

Lake County demonstrated the Target Capability of Emergency Operations Center Management including the use of effective procedures to alert, notify and mobilize emergency personnel and activate facilities in a timely manner. The Lake County EOC demonstrated sufficient multi-agency coordination to respond to an incident at the Perry Nuclear Power Plant through timely activation and efficient operations throughout the exercise. The EOC was managed efficiently and effectively, completed a full notification and activation, and was staffed to an operational level.

The Emergency Management Director and County Board Chair provided effective management, direction and control throughout the exercise. The Ashtabula County EOC coordinated decision-making with the SEOC, JIC and other jurisdictions and ensured that a clear and consistent message was communicated to the public.

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

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

3.3.2.3 Lake County - Lakeland Community College - Joint Information Center

Lake County demonstrated the Target Capability of Providing Emergency Public Information through the County Public Information Officers (PIOs) at the Joint Information Center (JIC). Lake County PIOs coordinated with their counterparts in the JIC and County EOC to provide timely, accurate and useful information to the public.

The JIC facility is well designed and serves as an efficient facility. The Telephone Response Center had access to pre-scripted FAQs, media advisories and special news broadcasts, enhancing their ability to deliver accurate information and maintain good situational awareness. Ohio Emergency Management staff provided leadership for the state and local components of the JIC.

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

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

3.3.2.4 Lake County - Painesville City School District - Evacuation School

Lake County demonstrated the Target Capability of Citizen Evacuation and Shelter-in-Place for school children through telephone interview. The Painesville City School District representative described plans and procedures to safely evacuate students from the Perry Nuclear Power Plant EPZ and reunite them with their families. The school district demonstrated sufficient personnel, current contact information, emergency worker dosimetry, and communications capabilities to notify families and guardians regarding how to reunite with evacuated students.

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

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

3.3.2.5 Lake County - Riverside School District - School Evacuation

Lake County demonstrated the Target Capability of Citizen Evacuation and Shelter-in-Place for school children through telephone interview. The Riverside School District representative described plans and procedures to safely evacuate students from the Perry Nuclear Power Plant EPZ and reunite them with their families. The school district demonstrated sufficient personnel, current contact information, emergency worker dosimetry, and communications capabilities to notify families and guardians regarding how to reunite with evacuated students.

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

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

g. PRIOR ISSUES - UNRESOLVED: None

3.3.2.6 Lake County - Sheriff's Office -TACP/DCO Briefing

The Lake County Dosimetry Control Officer (DCO) demonstrated the Target Capability by issuing appropriate dosimetry and procedures, and managed radiological exposure to emergency workers in accordance with the plans and procedures. Emergency workers periodically and at the end of each mission read their dosimeters and recorded the readings on the appropriate exposure record.
Instructions and precautions for taking KI, a dosimetry instructions card, and a radiation exposure record, when the decision was made for emergency workers to ingest KI, the Lake County DCO advised that area dosimetry would be done for the EOC area and certain individuals would be issued personal dosimetry.

One individual issued personal dosimetry was the dispatcher in the EOC. KI and appropriate instructions were available when the decision to recommend use of KI was made. Appropriate record keeping of the administration of KI for emergency workers and institutionalized individuals (not the general public) was maintained.

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

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

3.3.2.7 Lake County - Lake County Sheriff's Office - Traffic and Access Control

Lake County demonstrated the Target Capability of Emergency Public Safety and Security Response through interview which included the distribution of dosimetry, emergency worker radiological exposure management, and the capability to implement Traffic Control Points (TCPs) within the 10-mile Emergency Planning Zone. During the interview, the Deputy demonstrated thorough knowledge of the provisions of the Emergency Operations Plan related to the establishment of TCPs in addition to the use of appropriate dosimetry procedures,

documentation and communications equipment including portable radios, cell phones and mobile data terminals.

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

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

3.3.2.8 Lake County - Fairport Harbor Village Fire Department - Backup Route Alerting - DCO Briefing

The Lake County Dosimetry Control Officer (DCO) demonstrated the Target Capability by issuing appropriate dosimetry and procedures, and managed radiological exposure to emergency workers in accordance with the plans and procedures. Emergency workers periodically and at the end of each mission read their dosimeters and recorded the readings on the appropriate exposure record.

Instructions and precautions for taking KI, a dosimetry instructions card, and a radiation exposure record, when the decision was made for emergency workers to ingest KI, the Lake County DCO advised that area dosimetry would be done for the EOC area and certain individuals would be issued personal dosimetry. One individual issued personal dosimetry was the dispatcher in the EOC. KI and appropriate instructions were available when the decision to recommend use of KI was made. Appropriate record keeping of the administration of KI for emergency workers and institutionalized individuals (not the general public) was maintained.

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

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

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

3.3.2.9 Lake County - Fairport Harbor Village Fire Department - Backup Route Alerting

Lake County demonstrated the Target Capability by completing back-up alert and notification to the public in a timely manner. The Fairpoint Harbor Village Fire Department was notified (by controller inject) that a siren was inoperable. The Deputy Chief directed his staff to begin preparing to conduct back-up route alerting. The Deputy Chief provided a map of the area to be covered, the siren that was inoperable and instructed the crew to drive slowly through the designated route slowly enough to get the pre-scripted message out to inform the public on what to do. The route was completed well below the required 45-minutes time allowence. The crew was instructed to return to station and wait for further instructions.

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

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

3.3.2.10 Lake County - Field Monitoring Teams - Dosimetry Control Officer Briefing

The Lake County Dosimetry Control Officer (DCO) demonstrated the Target Capability by issuing appropriate dosimetry and procedures, and managed radiological exposure to emergency workers in accordance with the plans and procedures. Emergency workers periodically and at the end of each mission read their dosimeters and recorded the readings on the appropriate exposure record.

Instructions and precautions for taking KI, a dosimetry instructions card, and a radiation exposure record, when the decision was made for emergency workers to ingest KI, the Lake County DCO advised that area dosimetry would be done for the EOC area and certain individuals would be issued personal dosimetry. One individual issued personal dosimetry was the dispatcher in the EOC. KI and appropriate instructions were available when the decision to recommend use of KI was made. Appropriate record keeping of the administration of KI for

emergency workers and institutionalized individuals (not the general public) was maintained.

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

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

3.3.2.11 Lake County - Field Monitoring Team Coordinator

The Lake County Field Monitoring Team Coordinator (FMTC) successfully demonstrated the Target Capability managing two field monitoring teams to obtain sufficient information to help characterize the release and to control radiation exposure. The demonstration was conducted in the Lake County Emergency Operations Center (EOC).

After the briefing, the Lake County FMTC instructed both teams to proceed to the starting point of their respective plume traverses. The starting point of each traverse was designated as "Alpha," and the end point of the point of each traverse was designated as "Beta."

The Lake County FMTC informed Lake County FMT 1 that its Alpha point was the intersection of Mill Ridge and Town Line Road, and its Beta point was the intersection of Lockwood and Town Line Road. Lake County FMT 1 was to proceed north and south on Town Line Road. The Lake County FMTC informed Lake County FMT 2 that its Alpha point was the intersection of Burns Road and Middle Ridge Road and Beta point was the intersection of Green Road and Chapel Road. Lake County FMT 2 was to proceed north on Burns Road to Middle Ridge Road, west on Middle Ridge Road and then north on Green Road.

The Lake County FTMC explained that the FMTs would make traverses back and forth in a direction perpendicular to the wind direction looking for exposure readings of 1 milliroentgen per hour (mR/hr) that would indicate the possible presence of a plume. Three simulated State FMTs also made traverses, one State FMT to the west of the Lake County FMTs and two State FMTs to the east of the Lake County FMTs.

The Lake County FMTC reported exposure rate readings and sample results to the State FMTC and the State Radiological Analyst, both located in the Lake County EOC Assessment Room along with the Lake County FMTC. Personnel in the Lake County EOC Assessment Room plotted the location of radiation readings, on maps along with the traverse routes.

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

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

3.3.2.12 Lake County - Field Monitoring Team #1

Lake County Field Monitoring Team (FMT) successfully demonstrated the Target Capability with their ability to take ambient radiation measurements and air samples at appropriate locations. The Lake County Field Monitoring Team Coordinator (FMTC) at the Lake County EOC directed Lake County FMT to travel to a location two miles downwind of PNPP to determine a plume centerline using the gamma-beta detection instruments in window open and closed positions. The Lake County FMT traversed the expected area and direction of the plume to determine the highest reading or centerline. The same was done in the reverse direction to better identify the centerline. The FMT traversed this downwind location six times prior to the plume arrival.

Once the centerline was established, FMT was directed, by the Lake County FMTC, to go to the centerline and take a five minute air sample with both particulate filter and silver zeolite cartridge in place to measure particulates and radioiodine, respectively. Sample filter and cartridge were loaded and the sample was collected in accordance with procedures. Beta and gamma measurements were taken during air sampling to ensure that the plume centerline did not shift while sampling.

All field measurements were transmitted to the Field Team Coordinator immediately by radio. Lake County FMT proceeded to a background location and counted both the particulate and radioiodine samples three times using the appropriate probes. The sample data were entered onto

the form identified in the FMT Result Worksheet (Attachment 5). The numbers were averaged, background was subtracted and instrument efficiencies were entered onto the worksheet for transmission by radio to the EOC for calculation by the assessment team. Contamination control procedures were observed during the traverse of the plume and during sample counting. A chain-of-custody form was prepared for the sample and the sample was placed in a sample vault in the vehicle.

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

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

3.3.2.13 Lake County - Field Monitoring Team #2

Lake County Field Monitoring Team (FMT) successfully demonstrated the Target Capability with their ability to take ambient radiation measurements and air samples at appropriate locations. The Lake County Field Monitoring Team Coordinator (FMTC) at the Lake County EOC directed Lake County FMT to travel to a location two miles downwind of PNPP to determine a plume centerline using the gamma-beta detection instruments in window open and closed positions. The Lake County FMT traversed the expected area and direction of the plume to determine the highest reading or centerline. The same was done in the reverse direction to better identify the centerline. The FMT traversed this downwind location six times prior to the plume arrival.

Once the centerline was established, FMT was directed, by the Lake County FMTC, to go to the centerline and take a five minute air sample with both particulate filter and silver zeolite cartridge in place to measure particulates and radioiodine, respectively. Sample filter and cartridge were loaded and the sample was collected in accordance with procedures. Beta and gamma measurements were taken during air sampling to ensure that the plume centerline did not shift while sampling.

All field measurements were transmitted to the Field Team Coordinator immediately by radio. Lake County FMT proceeded to a background location and counted both the particulate and radioiodine samples three times using the appropriate probes. The sample data were entered onto the form identified in the FMT Result Worksheet (Attachment 5). The numbers were averaged, background was subtracted and instrument efficiencies were entered onto the worksheet for transmission by radio to the EOC for calculation by the assessment team. Contamination control procedures were observed during the traverse of the plume and during sample counting. A chain-of-custody form was prepared for the sample and the sample was placed in a sample vault in the vehicle.

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

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

3.3.2.14 Lake County - Monitoring and Decontamination of Evacuees - Willoughby Fire Department - South High School

Lake County successfully demonstrated the target capability of monitoring and decontamination of evacuees. Six simulated evacuees were used to fulfill the demonstration criterion. The evacuees were staged at the entrance to the reception center until preparation of the decontamination line and testing of the equipment was completed.

Upon controller initiation, the first evacuee approached a marked line on multi-layered brown paper approximately 15-feet in front of the portal monitor. The evacuee's name and date of birth were collected, and the evacuee was directed to step forward and through the portal monitor without stepping off the paper-covered path. The controller informed the emergency workers at the portal monitor that the first evacuee did not alert the portal monitor. The evacuee was directed to a table approximately 15-feet beyond the portal monitor where additional personal

information was collected on a standard form. When completed, the evacuee was directed to follow a direct path to the reception center entrance. This same practice was followed for the next four evacuees.

As the sixth and final evacuee exited the portal monitor, the controller informed the emergency worker participants that the portal monitor had alerted. This evacuee was directed to the registration table where, in addition providing additional personal information for reception center registration, this evacuee surrendered (simulated) personal affects which would have been collected in a labeled plastic bag and returned to the evacuee upon his arrival at the reception center.

The final evacuee was directed along an opposite path to an evacuee monitoring station near a men's shower facility adjacent to the facility's gymnasium. The evacuee was instructed to stand still with his legs comfortably separated and his arms extended to 90 degrees. Beginning with the top of the evacuees head, an emergency worker began to survey the evacuee with a Ludlum Model 3 rate meter with a Ludlum 44-9 pancake probe marked with a sticker showing that the instrument was within current calibration, having been calibrated in March 2012 with a calibration due date of March 2013. At a rate of six inches per second, the emergency surveyed first the front, then the rear of the evacuee's surface. Each time the rate meter covered the palm of the evacuee's left hand, the controller informed the emergency worker that the rater meter exceed 300-per minute above background.

The evacuee was instructed to thoroughly shower (simulated) his entire body, with additional attention to the palm of his left hand. Upon exit from the shower, a full survey of the evacuee was repeated. Following the same procedures, the controller informed the emergency workers that the Ludlum Model 3 detected radiation in excess of 300-counts per minute above background. Another shower was ordered. Upon a third survey of the evacuee, the controller informed the emergency workers that the rate meter remained at background levels when the surveyor covered the palm of the evacuee's left hand. At this point the evacuee was determined to be contamination free and was directed along a path to the reception center.

Six evacuees were processed through a single portal monitor in two minutes, equating to a rate of 3 person per minute, 180 persons per hour, and 2,160 persons in a twelve hour period. Ashtabula County estimates that 2,880 persons would require monitoring at the Conneaut Middle School in order to meet the 20% requirement. The monitoring team indicated that a second portal monitor

could be made available but (in accordance with the extent of play agreement) was not deployed, and could have enabled Conneaut Middle School to easily meet the 20% target of 2,880 persons in 12 hours. However, information provided subsequent to the exercise indicates that only one portal monitor is available at the Conneaut Middle School location and that additional portal monitors could be made available from the risk jurisdictions for Davis-Besse and Beaver Valley nuclear power plants, which are also operated by FENOC.

The plan and procedures do not articulate the methodology and logistics for meeting the 2,880 persons per portal monitor throughput rate in 12 hours. Because Ashtabula County coordinates with Lake and Geauga Counties in addressing monitoring needs, corrective action recommendations are addressed globally in the Lake County narrative for evacuee monitoring and decontamination.

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

a. MET: 1.d.1, 1.e.1, 3.a.1.
b. AREAS REQUIRING CORRECTIVE ACTION: None
c. DEFICIENCY: None
d. PLAN ISSUES: 6.a.1.

ISSUE NO.: 47-12-6a1-P-04

CRITERION: The reception center facility has appropriate space, adequate resources, and trained personnel to provide monitoring, decontamination, and registration of evacuees.

CONDITION: The Lake County Emergency Management Agency Radiological Emergency Response Plan requires one portal monitor to be demonstrated at the Reception Center. According to the County, guidance assumes one evacuee to be monitored every 15 seconds (four persons per minute, or 2880 persons in 12 hours) without delay and without contamination. Using the procedure demonstrated, the County could process only 2160 persons in 12 hours.

POSSIBLE CAUSE: One portal monitor is not sufficient to monitor 2,880 evacuees in a 12 hour period. The data and procedures provided by the Counties in response to FEMA's request for additional information are not fully articulated in the plans and

SOGs, nor are contingencies that may cause delays (such as equipment breakdowns; delays caused by personnel and evacuee issues; relocation of excess evacuees to other RCs due to evacuees favoring some RC locations over others and overwhelming available equipment and temporarily personnel resources; unanticipated delays in transporting additional portal monitors from other locations; etc.). While the Counties have access to additional portal monitors through mutual aid agreements, the logistics for assuring timely availability to meet minimum throughput requirements are not addressed in the plans and procedures.

REFERENCE: NUREG Criterion J.10.h

EFFECT: Not having a sufficient number of portal monitors could create a bottle neck at reception centers and cause delays in monitoring. Based on the observed throughput rates at the three evaluated monitoring locations in Lake, Geauga and Ashtabula Counties, additional Portal Monitors would be required to process 20% of the estimated peak summer population.

RECOMMENDATION: Plans and procedures for Lake, Geauga and Ashtabula Counties should be revised to articulate the logistics for assuring timely availability of sufficient portal monitoring equipment to meet minimum throughput requirements.

SCHEDULE OF CORRECTIVE ACTIONS:

The Counties agree that it will be a challenge to complete monitoring in a timely manner using current procedures. In order to enhance their ability to handle both RERP-related monitoring and any all?hazards radiological monitoring that may be needed, additional portal monitors will be obtained. These monitors will be portable and available for use anywhere within any of the Ohio RERP Counties. Additional monitors will be made available in the most populated decontamination centers in order to efficiently process evacuees. These new monitors are scheduled to be in place in 2013. The plans and applicable Standard Operating Guides (SOGs) in each County will then be updated prior to the next biennial exercise to reflect the availability of these new monitors and the logistics for making them operational in a timely manner.

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

3.3.2.15 Lake County - Willoughby Fire Department - South High School - Reception Center

Lake County demonstrated the Target Capability of establishing adequate facilities, resources and trained personnel to provide reception center operations. The registration of evacuees was performed by the Willoughby Fire Department at the South High School Reception Center.

Fifteen American Red Cross volunteers operated the Congregate Care Center (CCC) which was also located at the Reception Center, prior to going into the CCC all evacuees must be monitored and registered, if they are found not to be contaminated, they are escorted to the CCC for registration and assistance. If an evacuee is found to be contaminated, they must process through the Decontamination station and after they have been successfully decontaminated, they are escorted to the CCC.

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

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

3.3.2.16 Lake County - Willoughby Fire Department - South High School - Monitoring & Decontamination of Evacuee Vehicles

Lake County Successfully demonstrated the target capability to provide equipment and supplies to support evacuee monitoring and decontamination of evacuees and their vehicles. The Lake County Reception Center and Evacuee Monitoring and Decontamination Center were located at the Willoughby Fire Department-South High School. Vehicle monitoring was performed by personnel of the Willoughby Fire Department. The extent-of-play agreement did not require any vehicles to be decontaminated so the evaluation of vehicle decontamination was performed

through an interview of the Willoughby Fire Department assistant chief and the emergency worker who performed the vehicle monitoring demonstration. Most decontamination supplies, including the various materials that would be used to delineate the parking lot areas, were not unpacked from storage containers and were not displayed. Their use was also evaluated through interview.

The evacuee vehicle monitoring location was located in the South High School parking lot near the portion of the parking lot where evacuees would initially park their vehicles when they arrived at the Lake County Reception Center. Adjacent areas of the parking lot and school grounds were designated in Lake County procedures for vehicle decontamination, for re-monitoring decontaminated vehicles, and for impounding vehicles that either were in need of monitoring or were found during monitoring to be contaminated. Signs, barricades, and traffic cones and other materials as needed from the Willoughby Fire and Police departments would be used to physically delineate the parking lot areas during an emergency. The South Hight School parking areas, supplemented by overflow parking areas at an adjacent fire department, were adequate in size to support vehicle monitoring and decontamination.

Lake County procedures for the Lake County Evacuee Monitoring and Decontamination center specify that evacuees will park their vehicles in a designated parking area near the entrance to the reception center after which they would be monitored for radioactive contamination. Evacuees found to be radioactively contaminated give their vehicle keys to personnel at the monitoring location. Monitoring station personnel relocate their potentially contaminated vehicle to the impound area to stand by for radiological monitoring. When the vehicle monitoring area would become available to accept the vehicle, an attendant would drive the vehicle to the monitoring area where a Vehicle/Equipment Monitor would perform a radiological survey of the potentially contaminated vehicle.

The monitoring demonstration was performed by two emergency workers who were from the Willoughby Fire Department. One was the designated Vehicle/Equipment Monitor. He was supported by the Willoughby Fire Department assistant chief. The monitor and Assistant Chief were wearing Landauer Luxel PRDs and had been present at a radiation exposure control briefing provided by the Dosimetry Coordinator. The PRDs were within current calibration with an exchange due date of March 31, 2013, preprinted on the dosimeter face.

The emergency workers had completed Dosimetry Report Forms during the briefing. The

monitor stated that he would normally be wearing anti-contamination gloves and shoe covers (simulated for the demonstration) during his monitoring assignments. The monitor had obtained a Ludlum Model 3 rate meter with a Ludlum 44-9 pancake probe from the Dosimetry Coordinator. The instrument was marked with a sticker showing that the instrument was within current calibration, having been calibrated in March 2012 with a calibration due date of March 2013. The Ludlum instrument had been inspected and response checked by the Dosimetry Coordinator prior to use in accordance with written instructions taped on the bottom of the instrument, including a check of the battery and verifying correct settings of the control switches and scale knobs. A response check was performed by placing the face of the detector probe in close proximity to a 1 microcurie Cesium 137 check source affixed to the instrument. The response check verified that the response was within acceptable range of observed instrument response shown on a sticker affixed to the instrument. The probe of the instrument was covered with a plastic bag to prevent the probe from being contaminated.

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

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

3.3.2.17 Lake County - Mentor Fire Department - Emergency Worker DCO Briefing

The Lake County Dosimetry Control Officer (DCO) demonstrated the Target Capability by issuing appropriate dosimetry and procedures, and managed radiological exposure to emergency workers in accordance with the plans and procedures. Emergency workers periodically and at the end of each mission read their dosimeters and recorded the readings on the appropriate exposure record.

Instructions and precautions for taking KI, a dosimetry instructions card, and a radiation exposure record, when the decision was made for emergency workers to ingest KI, the Lake County DCO advised that area dosimetry would be done for the EOC area and certain individuals would be issued personal dosimetry. One individual issued personal dosimetry was the dispatcher in the EOC. KI and appropriate instructions were available when the decision to

recommend use of KI was made.

Appropriate record keeping of the administration of KI for emergency workers and institutionalized individuals (not the general public) was maintained.

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

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

3.3.2.18 Lake County - Mentor Fire Department - Mentor Conditioning Center - Emergency Worker Monitoring and Decontamination

Lake County successfully demonstrated the Target Capability to provide leadership by providing direction and control for the Monitoring/Decontamination of Emergency Workers

All EWs wore individual dosimetry during the demonstration. Monitoring and decontamination of Emergency workers occurs in the facility gender specific locker rooms. For this demonstration, only the men's room was utilized with an evaluator walk-through and discussion of the men's room facility and operation conducted.

The contaminated EWs were directed from the parking lot into the facility where they would proceed down a well-marked pathway protected by roll paper and into the portal monitor station. After proceeding through the monitor all clean EWs were directed to the registration area and any contaminated EWs were directed down a covered pathway to the men's room decontamination area. The Decon Team member directed the EW to move forward to an area well draped with paper and instructed not to touch anything to avoid possible contamination of the area.

The Decon Team was properly outfitted in appropriate personnel protective equipment (PPE). The PPE consisted of Tyvec suits, booties, head covers, face masks and latex or nitrile Gloves (simulated). Using a Ludlum Model 3 meter, the Decon Team carefully and correctly surveyed

the individual. By controller inject, contamination of 2,400 counts per minute (cpm) was indicated on the emergency workers left palm. The Decon Team Leader explained that since the meter reading was above 300 cpm, that this individual would require decontamination per the Lake County Standard Operating Guidelines.

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

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

3.3.2.19 Lake County - Mentor Fire Department - Mentor Conditioning Center - Emergency Worker Monitoring and Decontamination of Vehicles

Lake County and the Mentor Fire Department - Mentor Conditioning Center successfully Demonstrated the Target Capability of Emergergency Worker Monitorinfg and Decontamination of Vehicles.

Each of the Emergency Workers (EWs) at the EWMDS conducting monitoring and decontamination of vehicles was wearing a Luxec+ Optically Stimulated Luminescence Dosimeter (OSLD) with usage dates of 01/01/2012 to 12/31/2012. As vehicles arrived at the Emergency Worker Monitoring and Decontamination Station (EWMDS) the occupants were discharged at the doorway to the workout room of the conditioning center. Individuals entered the workout room where they were processed by a team conducting the monitoring and decontamination of individuals. The vehicle was driven by a suited vehicle team member to a secured area where it was processed by the six member vehicle monitoring team.

The vehicle monitoring team demonstrated the process to register, monitor and decontaminate a vehicle and the team leader provided a narrative of actions take. An Equipment Monitoring Record, REV 7/2008, was generated when a vehicle arrived. It recorded the monitoring station location, date, and time. The form also captured information on the vehicle, such as the Vehicle Identification Number (VIN), owner's name and address, and phone number. One copy of the Equipment Monitoring Record remained with the vehicle.

The vehicle decontamination team had two Vehicle Container Kits which held supplies such as water hoses, scrub brushes, soap, gloves, Tyvek suites, and record forms. The vehicle team washed down the contaminated area of the vehicle with soap and water (this was simulated).

The vehicle was re-monitored. If it was clean (had a reading of less than 300 cpm) it was taken to the Laketran parking lot. If the vehicle was still contaminated, a second cleaning and a second monitoring would be conducted. A vehicle designated clean after the second cleaning would be taken to the Laketran parking lot. A vehicle still contaminated after the second cleaning would be placed in a secure holding area. There was ample parking space for clean and contaminated vehicles.

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

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

3.3.2.20 Lake County - South High School - Reception Center - American Red Cross

Lake County demonstrated the Target Capability of establishing adequate facilities, resources and trained personnel to provide reception center operations. The registration of evacuees was performed in the cafeteria of the South High School. Fifteen American Red Cross volunteers operated the Congregate Care Center (CCC) which was also located at the Reception Center, prior to going into the CCC all evacuees must be monitored and registered, if they are found not to be contaminated, they are escorted to the CCC for registration and assistance. If an evacuee is found to be contaminated, they must process through the Decontamination station and after they have been successfully decontaminated, they are escorted to the CCC.

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

a. MET: 1.d.1, 1.e.1, 6.c.1.
b. AREAS REQUIRING CORRECTIVE ACTION: None

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

3.3.2.21 Lake County - MS-1 Transportation - Dosimetry Control Officer Briefing

The Lake County Dosimetry Control Officer (DCO) demonstrated the Target Capability by issuing appropriate dosimetry and procedures, and managed radiological exposure to emergency workers in accordance with the plans and procedures. Emergency workers periodically and at the end of each mission read their dosimeters and recorded the readings on the appropriate exposure record.

Instructions and precautions for taking KI, a dosimetry instructions card, and a radiation exposure record, when the decision was made for emergency workers to ingest KI, the Lake County DCO advised that area dosimetry would be done for the EOC area and certain individuals would be issued personal dosimetry. One individual issued personal dosimetry was the dispatcher in the EOC. KI and appropriate instructions were available when the decision to recommend use of KI was made. Appropriate record keeping of the administration of KI for emergency workers and institutionalized individuals (not the general public) was maintained.

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

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

3.3.2.22 Lake County - Perry Joint Fire District - Medical (MS-1) Services -Transportation

Lake County and the Perry Joint Fire District Rescue Squad successfully demonstrated the Target Capability for patient Transportation had the appropriate space, adequate resources and trained personnel to provide transport and medical services to a contaminated injured individual.

The rescue squad crew members demonstrated, by interview, knowledge of where the ambulance and crew would be monitored and decontaminated, if required. Monitoring of the victim was deferred to the medical facility. Appropriate contamination control measures were demonstrated. As soon as contact with medical facility as per extent-of-play the transportation portion of drill was terminated, with no actual transport of patient to hospital.

Contamination control efforts did not delay urgent medical care for the victim. Crew members of the Perry Joint Fire District Rescue Squad demonstrated the capability to transport the contaminated injured individual

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

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

3.3.2.23 Lake County - Lake West Medical Center - Medical (MS-1) Services - Facility

Lake County and the Lake West Medical Center demonstrated the Target Capability that they have proper space; resources and trained personnel to monitor decontaminate and provide medical services to contaminated injured individuals. They aligned the ambulance stretcher aside a hospital stretcher. The patient was carefully transferred across the REA control line to the hospital stretcher. The patient was then wheeled into the decontamination room by the hot zone nurse and EMS responder working at the hospital.

They also demonstrated their ability to issue appropriate dosimetry and manage radiological

exposure to emergency workers. The Medical Radiation Technician (MRT) told the Nuclear Medicine Technician that he would monitor the ambulance, ambulance bay and attendants. He would check in when all outside monitoring activities were complete.

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

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

3.3.2.24 Ashtabula County - Initial Notification Point

The Ashtabula County Sheriff Dispatch Center, demonstrated the Target Capability of Emergency Operations Center Management as the Ashtabula County Initial Notification Point for radiological incidents occurring at Perry Nuclear Power Plant (PNPP). The County Sheriff dispatcher used appropriate procedures to accurately record information received from PNPP and accurately relayed that information to the Ashtabula County Emergency Manager. A variety of primary and back-up communications systems were demonstrated during the exercise.

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

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

3.3.2.25 Ashtabula County - Emergency Operations Center

Ashtabula County demonstrated the Target Capability of Emergency Operations Center Management including the use of effective procedures to alert, notify and mobilize emergency personnel and activate facilities in a timely manner. The Ashtabula County EOC demonstrated sufficient multi-agency coordination to respond to an incident at the Perry Nuclear Power Plant through timely activation and efficient operations throughout the exercise. The EOC was managed efficiently and effectively, completed a full notification and activation, and was staffed to an operational level.

The Emergency Management Director and County Board Chair provided effective management, direction and control throughout the exercise. The Ashtabula County EOC coordinated decision-making with the SEOC, JIC and other jurisdictions and ensured that a clear and consistent message was communicated to the public.

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

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

3.3.2.26 Ashtabula County - Lakeland Community College - Joint Information Center

Ashtabula County demonstrated the Target Capability of Providing Emergency Public Information through the County Public Information Officers (PIOs) at the Joint Information Center (JIC). Ashtabula County PIOs coordinated with their counterparts in the JIC and County EOC to provide timely, accurate and useful information to the public. The JIC facility is well designed and serves as an efficient facility.

The Telephone Response Center had access to prescripted FAQs, media advisories and special news broadcasts, enhancing their ability to deliver accurate information and maintain good situational awareness. Ohio Emergency Management staff provided leadership for the state and

local components of the JIC.

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

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

3.3.2.27 Ashtabula County - Geneva on the Lake Village Police Department - Traffic Control Point/Access Control Point - Briefing

The Ashtabula County Dosimetry Control Officer (DCO) at the Geneva on the Lake Fire Department demonstrated the Target Capability by issuing appropriate dosimetry and procedures, and managed radiological exposure to emergency workers in accordance with the plans and procedures. Emergency workers periodically and at the end of each mission read their dosimeters and recorded the readings on the appropriate exposure record. Sufficient supplies of dosimetry and KI were available for all Traffic and Access Control personnel. Each dosimetry packet contained one Arrow-Tech, Inc. model 730, 0-20R Direct-Reading Dosimeter, one Bendix Model CD V-742, 0-20 R Direct Reading Dosimeter, one Personal Record Dosimeter, seven KI tablets and dosimetry report form.

The TACP personnel were briefed on the use of KI and appropriate instructions were available when the decision to recommend use of KI was made. Appropriate record keeping of the administration of KI for emergency workers and institutionalized individuals (not the general public) was maintained.

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

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

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

3.3.2.28 Ashtabula County - Geneva on the Lake Village Police Department - Traffic Control Point/Access Control Point - Interview

Ashtabula County demonstrated the Target Capability of Emergency Public Safety and Security Response through interview which included the distribution of dosimetry, emergency worker radiological exposure management, and the capability to implement Traffic Control Points (TCPs) within the 10-mile Emergency Planning Zone. During the interview, the Deputy demonstrated thorough knowledge of the provisions of the Emergency Operations Plan related to the establishment of TCPs in addition to the use of appropriate dosimetry procedures, documentation and communications equipment including portable radios, cell phones and mobile data terminals.

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

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

3.3.2.29 Ashtabula County - Geneva on the Lake Village Fire Department - Backup Route Alerting - DCO Briefing

The Ashtabula County Dosimetry Control Officer (DCO) demonstrated the Target Capability by issuing appropriate dosimetry and procedures, and managed radiological exposure to emergency workers in accordance with the plans and procedures. Emergency workers periodically and at the end of each mission read their dosimeters and recorded the readings on the appropriate exposure record.

Instructions and precautions for taking KI, a dosimetry instructions card, and a radiation exposure record. When the decision was made for emergency workers to ingest KI, the Ashtabula County DCO advised that area dosimetry would be done for the EOC area and certain

individuals would be issued personal dosimetry. One individual issued personal dosimetry was the dispatcher in the EOC. KI and appropriate instructions were available when the decision to recommend use of KI was made. Appropriate record keeping of the administration of KI for emergency workers and institutionalized individuals (not the general public) was maintained.

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

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

3.3.2.30 Ashtabula County - Geneva on the Lake Village Fire Department - Backup Route Alerting

Ashtabula County demonstrated the Target Capability by completing Back up alert and notification to the public in a timely manner. The Geneva on the Lake Fire Department was notified (by controller inject) that siren A-01 was inoperable. The Deputy Chief directed his staff to begin preparing to conduct back-up route alerting. The Deputy Chief provided a map of the are to be covered and instructed the crew to drive slowly through the designated route slowly enough to get the pre-scripted message out to inform the public on what to do. The route was completed within 31 minutes well below the required 45 minutes. The crew was instructed to return to station and wait for further instructions.

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

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

3.3.2.31 Ashtabula County - Conneaut Fire Department - Conneaut Middle School - Reception Center

Ashtabula County demonstrated the Target Capability of establishing adequate facilities, resources and trained personnel to provide reception center operations. The registration of evacuees was performed in the cafeteria of the Conneaut Middle School. Fifteen American Red Cross volunteers operated the Congregate Care Center (CCC) which was also located at the Reception Center, prior to going into the CCC all evacuees must be monitored and registered, if they are found not to be contaminated, they are escorted to the CCC for registration and assistance. If an evacuee is found to be contaminated, they must process through the Decontamination station and after they have been successfully decontaminated, they are escorted to the CCC.

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

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

3.3.2.32 Ashtabula County - Monitoring and Decontamination of Evacuees - Conneaut Fire Department

Ashtabula County successfully demonstrated the target capability of monitoring and decontamination of evacuees. Six simulated evacuees were used to fulfill the demonstration criterion. The evacuees were staged at the entrance to the reception center until preparation of the decontamination line and testing of the equipment was completed. Upon controller initiation, the first evacuee approached a marked line on multi-layered brown paper approximately 15-feet in front of the portal monitor. The evacuee's name and date of birth were collected, and the evacuee was directed to step forward and through the portal monitor without stepping off the paper-covered path. The controller informed the emergency workers at the portal monitor that the first evacuee did not alert the portal monitor. The evacuee was directed to a table approximately 15-feet beyond the portal monitor where additional personal information was collected on a standard form. When completed, the evacuee was directed to follow a direct path to the reception center

entrance. This same practice was followed for the next four evacuees.

As the sixth and final evacuee exited the portal monitor, the controller informed the emergency worker participants that the portal monitor had alerted. This evacuee was directed to the registration table where, in addition providing additional personal information for reception center registration, this evacuee surrendered (simulated) personal affects which would have been collected in a labeled plastic bag and returned to the evacuee upon his arrival at the reception center.

The final evacuee was directed along an opposite path to an evacuee monitoring station near a men's shower facility adjacent to the facility's gymnasium. The evacuee was instructed to stand still with his legs comfortably separated and his arms extended to 90 degrees. Beginning with the top of the evacuees head, an emergency worker began to survey the evacuee with a Ludlum Model 3 rate meter with a Ludlum 44-9 pancake probe marked with a sticker showing that the instrument was within current calibration, having been calibrated in March 2012 with a calibration due date of March 2013. At a rate of six inches per second, the emergency surveyed first the front, then the rear of the evacuee's surface. Each time the rate meter covered the palm of the evacuee's left hand, the controller informed the emergency worker that the rater meter exceed 300-per minute above background.

The evacuee was instructed to thoroughly shower (simulated) his entire body, with additional attention to the palm of his left hand. Upon exit from the shower, a full survey of the evacuee was repeated. Following the same procedures, the controller informed the emergency workers that the Ludlum Model 3 detected radiation in excess of 300-counts per minute above background. Another shower was ordered. Upon a third survey of the evacuee, the controller informed the emergency workers that the rate meter remained at background levels when the surveyor covered the palm of the evacuee's left hand. At this point the evacuee was determined to be contamination free and was directed along a path to the reception center.

Six evacuees were processed through a single portal monitor in two minutes, equating to a rate of 3 person per minute, 180 persons per hour, and 2,160 persons in a twelve hour period. Ashtabula County estimates that 2,880 persons would require monitoring at the Conneaut Middle School in order to meet the 20% requirement. The monitoring team indicated that a second portal monitor could be made available but (in accordance with the extent of play agreement) was not deployed, and could have enabled Conneaut Middle School to easily meet the 20% target of 2,880 persons

in 12 hours. However, information provided subsequent to the exercise indicates that only one portal monitor is available at the Conneaut Middle School location and that additional portal monitors could be made available from the risk jurisdictions for Davis-Besse and Beaver Valley nuclear power plants, which are also operated by FENOC.

The plan and procedures do not articulate the methodology and logistics for meeting the 2,880 persons per portal monitor throughput rate in 12 hours. Because Ashtabula County coordinates with Lake and Geauga Counties in addressing monitoring needs, corrective action recommendations are addressed globally in the Lake County narrative for evacuee monitoring and decontamination.

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

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

3.3.2.33 Ashtabula County - Conneaut Fire Department - Evacuee Monitoring and Decontamination of Vehicles

Ashtabula County Successfully demonstrated the target capability to provide equipment and supplies to support evacuee monitoring and decontamination of evacuees and their vehicles. The Ashtabula County Reception Center and Evacuee Monitoring and Decontamination Center were located at the Conneaut Middle School. Vehicle monitoring was performed by personnel of the Conneaut Fire Department. The extent-of-play agreement did not require any vehicles to be decontaminated so the evaluation of vehicle decontamination was performed through an interview of the Conneaut Fire Department assistant chief and the emergency worker who performed the vehicle monitoring demonstration. Most decontamination supplies, including the various materials that would be used to delineate the parking lot areas, were not unpacked from storage containers and were not displayed. Their use was also evaluated through interview.

The evacuee vehicle monitoring location was located in the Conneaut Middle School parking lot near the portion of the parking lot where evacuees would initially park their vehicles when they

arrived at the Ashtabula County Reception Center. Adjacent areas of the parking lot and school grounds were designated in Ashtabula County procedures for vehicle decontamination, for re-monitoring decontaminated vehicles, and for impounding vehicles that either were in need of monitoring or were found during monitoring to be contaminated. Signs, barricades, and traffic cones and other materials as needed from the Conneaut Fire and Police departments would be used to physically delineate the parking lot areas during an emergency. The Conneaut Middle School parking areas, supplemented by overflow parking areas at an adjacent elementary school, were adequate in size to support vehicle monitoring and decontamination.

Ashtabula County procedures for the Ashtabula County Evacuee Monitoring and Decontamination center specify that evacuees will park their vehicles in a designated parking area near the entrance to the reception center after which they would be monitored for radioactive contamination. Evacuees found to be radioactively contaminated give their vehicle keys to personnel at the monitoring location. Monitoring station personnel relocate their potentially contaminated vehicle to the impound area to stand by for radiological monitoring. When the vehicle monitoring area would become available to accept the vehicle, an attendant would drive the vehicle to the monitoring area where a Vehicle/Equipment Monitor would perform a radiological survey of the potentially contaminated vehicle.

The monitoring demonstration was performed by two emergency workers who were from the Conneaut Fire Department. One was the designated Vehicle/Equipment Monitor. He was supported by the Conneaut Fire Department assistant chief. The monitor and Assistant Chief were wearing Landauer Luxel PRDs and had been present at a radiation exposure control briefing provided by the Dosimetry Coordinator. The PRDs were within current calibration with an exchange due date of March 31, 2013, preprinted on the dosimeter face.

The emergency workers had completed Dosimetry Report Forms during the briefing. The monitor stated that he would normally be wearing anti-contamination gloves and shoe covers (simulated for the demonstration) during his monitoring assignments. The monitor had obtained a Ludlum Model 3 rate meter with a Ludlum 44-9 pancake probe from the Dosimetry Coordinator. The instrument was marked with a sticker showing that the instrument was within current calibration, having been calibrated in March 2012 with a calibration due date of March 2013. The Ludlum instrument had been inspected and response checked by the Dosimetry Coordinator prior to use in accordance with written instructions taped on the bottom of the instrument, including a check of the battery and verifying correct settings of the control switches

and scale knobs. A response check was performed by placing the face of the detector probe in close proximity to a 1 microcurie Cesium 137 check source affixed to the instrument. The response check verified that the response was within acceptable range of observed instrument response shown on a sticker affixed to the instrument. The probe of the instrument was covered with a plastic bag to prevent the probe from being contaminated.

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

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

3.3.2.34 Ashtabula County - Conneaut Middle School - Congregate Care Center

Ashtabula County and the American Red Cross (ARC) successfully demonstrated the target capability of providing the resources to provide services and accommodations consistent with ARC planning guidelines. The ARC shelter manager was in charge of the center and prepared the following stations to help ensure they meet the requirement set forth by planning guidance.

The Registration/Reunification station had two volunteers, each volunteer ensured that each evacuee completely filled out the Care Center Registration form, this is how everyone is tracked. The no contaminated people had their form stamped to show that they went through he monitoring/decontamination process. There were separate shower and changing areas for both male and female evacuees.

Mass Care Feeding can provide 150 boxed meals for evacuees by a restaurant that has an agreement with the ARC, the kitchen within the school could provide meals for 400 people at one time once in operation. The ARC has access to a mobile kitchen unit that when set up can feed approximately 700 people.

Client Services has clothing available is storage to clothe at least 500 people and more could be available from other chapters within the state. The living area was only set up with two cots for

this demonstration. Based on the amount of space there would be enough cots to accommodate 150 evacuees based on the 2 sq/ft per person minimum standard.

There were three health department personnel to brief incoming evacuees whether or not they have their KI with them and if not the CCC have 1,600 tablets available and more available from the Ashtabula County Emergency Operations Center. After evacuees have been processed through the stations, they have the option to stay in the shelter or leave. This shelter has the capability to process 3,600 evacuees with 150 of them can stay at the center if they need it. When the shelter is at 75% capacity the Center manager would contact ARC Executive in the county EOC and request another Center be opened. The center manager provided a schedule of personnel so the center has 24/7 operability.

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

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

3.3.2.35 Geauga County - Initial Notification Point

The Geauga County Sheriff Dispatch Center, demonstrated the Target Capability of Emergency Operations Center Management as the Geauga County Initial Notification Point for radiological incidents occurring at Perry Nuclear Power Plant (PNPP). The County Sheriff dispatcher used appropriate procedures to accurately record information received from PNPP and accurately relayed that information to the Ashtabula County Emergency Manager. A variety of primary and back-up communications systems were demonstrated during the exercise.

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

a. MET: 1.a.1, 1.d.1, 1.e.1.
b. AREAS REQUIRING CORRECTIVE ACTION: None
c. DEFICIENCY: None
d. PLAN ISSUES: None

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

3.3.2.36 Geauga County - Emergency Operations Center

Geauga County demonstrated the Target Capability of Emergency Operations Center Management including the use of effective procedures to alert, notify and mobilize emergency personnel and activate facilities in a timely manner. The Geauga County EOC demonstrated sufficient multi-agency coordination to respond to an incident at the Perry Nuclear Power Plant through timely activation and efficient operations throughout the exercise. The EOC was managed efficiently and effectively, completed a full notification and activation, and was staffed to an operational level. The Emergency Management Director and County Board Chair provided effective management, direction and control throughout the exercise. The Ashtabula County EOC coordinated decision-making with the SEOC, JIC and other jurisdictions and ensured that a clear and consistent message was communicated to the public.

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

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

3.3.2.37 Geauga County - JIC - Lakeland Community College

Geauga County demonstrated the Target Capability of Providing Emergency Public Information through the County Public Information Officers (PIOs) at the Joint Information Center (JIC). Geauga County PIOs coordinated with their counterparts in the JIC and County EOC to provide timely, accurate and useful information to the public. The JIC facility is well designed and serves as an efficient facility. The Telephone Response Center had access to pre-scripted FAQs, media advisories and special news broadcasts, enhancing their ability to deliver accurate information and maintain good situational awareness. Ohio Emergency Management staff provided

leadership for the state and local components of the JIC.

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

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

3.3.2.38 Geauga County - Ohio Highway Patrol Post #28 - Dosimetry Control Briefing

The Geauga County Dosimetry Control Officer (DCO) demonstrated the Target Capability by issuing appropriate dosimetry and procedures, and managed radiological exposure to emergency workers in accordance with the plans and procedures. Emergency workers periodically and at the end of each mission read their dosimeters and recorded the readings on the appropriate exposure record.

Instructions and precautions for taking KI, a dosimetry instructions card, and a radiation exposure record, when the decision was made for emergency workers to ingest KI, the Geauga County DCO advised that area dosimetry would be done for the EOC area and certain individuals would be issued personal dosimetry. One individual issued personal dosimetry was the dispatcher in the EOC. KI and appropriate instructions were available when the decision to recommend use of KI was made. Appropriate record keeping of the administration of KI for emergency workers and institutionalized individuals (not the general public) was maintained.

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

a. MET: 1.e.1.
b. AREAS REQUIRING CORRECTIVE ACTION: None
c. DEFICIENCY: None
d. PLAN ISSUES: 3.a.1.

ISSUE NO.: 47-12-3a1-P-05

CRITERION: The OROs issue appropriate dosimetry, KI, and procedures, and

manage radiological exposure to emergency workers in accordance with the plans/procedures. Emergency workers periodically and at the end of each mission read their dosimeters and record the readings on the appropriate exposure record or chart. Appropriate record-keeping of the administration of KI for emergency workers is maintained.

CONDITION: Attachment 3 of the Geauga County EOP includes the Dosimetry Coordinator Guide (Personal dosimetry) and the Dosimetry Report Form. On the Guide, Step 2 and Step 3, the turn back value was listed as 5 R. On the Dosimetry Report Form, back page (instructions) the turn back value within the 10-mile EPZ was listed as 1 R and 5 R for outside of the 10-Mile EPZ. There were no issues during the demonstration, however having only one value on the Dosimetry Coordinator Guide, 5 R, could cause potential confusion when briefing emergency workers.

POSSIBLE CAUSE: The Dosimetry Coordinator Guide should contain a blank space to record the turn back value rather than the current 5 R.

REFERENCE: NUREG-0654/FEMA-REP-1, J.10.e, K.3.a & b, K.4
Geuaga County Emergency Operations Plan, Attachment 3, revision 8/21/2012

EFFECT: There could be potential confusion created when a Dosimetry Brief is being conducted with the 5 R turn back value listed on the Dosimetry Coordinator Guide if a 1 R turn back value has been assigned.

RECOMMENDATION: Change the Dosimetry Coordinator Guide so that Step 2 and Step 3 have a blank space to list the turn back value.

SCHEDULE OF CORRECTIVE ACTIONS:
Eliminating the 5R value on the Dosimetry Coordinator Guide and replacing it with a blank fill?in space will provide the flexibility needed for moving into the Intermediate and the Recovery Phases of an accident. The Dosimetry Coordinator Guide will be revised to incorporate this feature, and the revision will be implemented by the end of February 2013.

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

3.3.2.39 Geauga County - Ohio Highway Patrol - Traffic and Access Control Point

Geauga County demonstrated the Target Capability of Emergency Public Safety and Security Response through interview which included the distribution of dosimetry, emergency worker radiological exposure management, and the capability to implement Traffic Control Points (TCPs) within the 10-mile Emergency Planning Zone. During the interview, the State Patrol Officer demonstrated thorough knowledge of the provisions of the Emergency Operations Plan related to the establishment of TCPs in addition to the use of appropriate dosimetry procedures, documentation and communications equipment including portable radios, cell phones and mobile data terminals.

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

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

3.3.2.40 Geauga County - Notre Dame Cathedral Latin - Reception Center

Geauga County demonstrated the Target Capability of establishing adequate facilities, resources and trained personnel to provide reception center operations. The registration of evacuees was performed Notre Dame Cathedral Latin Reception Center. Fifteen American Red Cross volunteers operated the Congregate Care Center (CCC) which was also located at the Reception Center, prior to going into the CCC all evacuees must be monitored and registered, if they are found not to be contaminated, they are escorted to the CCC for registration and assistance. If an evacuee is found to be contaminated, they must process through the Decontamination station and after they have been successfully decontaminated, they are escorted to the CCC.

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

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

3.3.2.41 Geauga County - Notre Dame Cathedral Latin - Munson Fire Department - Evacuee Decontamination

Geauga County successfully demonstrated the target capability of monitoring and decontamination of evacuees. Six simulated evacuees were used to fulfill the demonstration criterion. The evacuees were staged at the entrance to the reception center until preparation of the decontamination line and testing of the equipment was completed. Upon controller initiation, the first evacuee approached a marked line on multi-layered brown paper approximately 15-feet in front of the portal monitor. The evacuee's name and date of birth were collected, and the evacuee was directed to step forward and through the portal monitor without stepping off the paper-covered path. The controller informed the emergency workers at the portal monitor that the first evacuee did not alert the portal monitor. The evacuee was directed to a table approximately 15-feet beyond the portal monitor where additional personal information was collected on a standard form. When completed, the evacuee was directed to follow a direct path to the reception center entrance. This same practice was followed for the next four evacuees.

As the sixth and final evacuee exited the portal monitor, the controller informed the emergency worker participants that the portal monitor had alerted. This evacuee was directed to the registration table where, in addition providing additional personal information for reception center registration, this evacuee surrendered (simulated) personal affects which would have been collected in a labeled plastic bag and returned to the evacuee upon his arrival at the reception center.

The final evacuee was directed along an opposite path to an evacuee monitoring station near a men's shower facility adjacent to the facility's gymnasium. The evacuee was instructed to stand still with his legs comfortably separated and his arms extended to 90 degrees. Beginning with the top of the evacuees head, an emergency worker began to survey the evacuee with a Ludlum Model 3 rate meter with a Ludlum 44-9 pancake probe marked with a sticker showing that the

instrument was within current calibration, having been calibrated in March 2012 with a calibration due date of March 2013. At a rate of six inches per second, the emergency surveyed first the front, then the rear of the evacuee's surface. Each time the rate meter covered the palm of the evacuee's left hand, the controller informed the emergency worker that the rater meter exceed 300-per minute above background.

The evacuee was instructed to thoroughly shower (simulated) his entire body, with additional attention to the palm of his left hand. Upon exit from the shower, a full survey of the evacuee was repeated. Following the same procedures, the controller informed the emergency workers that the Ludlum Model 3 detected radiation in excess of 300-counts per minute above background. Another shower was ordered. Upon a third survey of the evacuee, the controller informed the emergency workers that the rate meter remained at background levels when the surveyor covered the palm of the evacuee's left hand. At this point the evacuee was determined to be contamination free and was directed along a path to the reception center.

Six evacuees were processed through a single portal monitor in two minutes, equating to a rate of 3 person per minute, 180 persons per hour, and 2,160 persons in a twelve hour period. Geauga County estimates that 2,880 persons would require monitoring at the Conneaut Middle School in order to meet the 20% requirement. The monitoring team indicated that a second portal monitor could be made available but (in accordance with the extent of play agreement) was not deployed, and could have enabled Conneaut Middle School to easily meet the 20% target of 2,880 persons in 12 hours. However, information provided subsequent to the exercise indicates that only one portal monitor is available at the Conneaut Middle School location and that additional portal monitors could be made available from the risk jurisdictions for Davis-Besse and Beaver Valley nuclear power plants, which are also operated by FENOC.

The plan and procedures do not articulate the methodology and logistics for meeting the 2,880 persons per portal monitor throughput rate in 12 hours. Because Geauga County coordinates with Lake and Ashtabula Counties in addressing monitoring needs, corrective action recommendations are addressed globally in the Lake County narrative for evacuee monitoring and decontamination.

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

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

3.3.2.42 Geauga County - Notre Dame Cathedral Latin - Munson Fire Department - Evacuee Monitoring and Decontamination of Vehicles

Geauga County Successfully demonstrated the target capability to provide equipment and supplies to support evacuee monitoring and decontamination of evacuees and their vehicles. TheGeauga County Reception Center and Evacuee Monitoring and Decontamination Center were located at the Notre Dame Cathedral Latin. Vehicle monitoring was performed by personnel of the Munson Fire Department.

The extent-of-play agreement did not require any vehicles to be decontaminated so the evaluation of vehicle decontamination was performed through an interview of the Munson Fire Department assistant chief and the emergency worker who performed the vehicle monitoring demonstration. Most decontamination supplies, including the various materials that would be used to delineate the parking lot areas, were not unpacked from storage containers and were not displayed. Their use was also evaluated through interview.

The evacuee vehicle monitoring location was located in the Notre Dame Cathedral Latin parking lot near the portion of the parking lot where evacuees would initially park their vehicles when they arrived at the Geauga County Reception Center. Adjacent areas of the parking lot and school grounds were designated in Ashtabula County procedures for vehicle decontamination, for re-monitoring decontaminated vehicles, and for impounding vehicles that either were in need of monitoring or were found during monitoring to be contaminated. Signs, barricades, and traffic cones and other materials as needed from the Munson Fire and Police departments would be used to physically delineate the parking lot areas during an emergency. The Notre Dame Cathedral Latin parking areas, supplemented by overflow parking areas at an adjacent elementary school, were adequate in size to support vehicle monitoring and decontamination.

Geauga County procedures for the Geauga County Evacuee Monitoring and Decontamination

center specify that evacuees will park their vehicles in a designated parking area near the entrance to the reception center after which they would be monitored for radioactive contamination. Evacuees found to be radioactively contaminated give their vehicle keys to personnel at the monitoring location. Monitoring station personnel relocate their potentially contaminated vehicle to the impound area to stand by for radiological monitoring. When the vehicle monitoring area would become available to accept the vehicle, an attendant would drive the vehicle to the monitoring area where a Vehicle/Equipment Monitor would perform a radiological survey of the potentially contaminated vehicle.

The monitoring demonstration was performed by two emergency workers who were from the Monson Fire Department. One was the designated Vehicle/Equipment Monitor. He was supported by the Munson Fire Department assistant chief. The monitor and Assistant Chief were wearing Landauer Luxel PRDs and had been present at a radiation exposure control briefing provided by the Dosimetry Coordinator. The PRDs were within current calibration with an exchange due date of March 31, 2013, preprinted on the dosimeter face.

The emergency workers had completed Dosimetry Report Forms during the briefing. The monitor stated that he would normally be wearing anti-contamination gloves and shoe covers (simulated for the demonstration) during his monitoring assignments. The monitor had obtained a Ludlum Model 3 rate meter with a Ludlum 44-9 pancake probe from the Dosimetry Coordinator. The instrument was marked with a sticker showing that the instrument was within current calibration, having been calibrated in March 2012 with a calibration due date of March 2013. The Ludlum instrument had been inspected and response checked by the Dosimetry Coordinator prior to use in accordance with written instructions taped on the bottom of the instrument, including a check of the battery and verifying correct settings of the control switches and scale knobs. A response check was performed by placing the face of the detector probe in close proximity to a 1 microcurie Cesium 137 check source affixed to the instrument. The response check verified that the response was within acceptable range of observed instrument response shown on a sticker affixed to the instrument. The probe of the instrument was covered with a plastic bag to prevent the probe from being contaminated.

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

a. MET: 1.d.1, 1.e.1, 3.a.1, 6.a.1.
b. AREAS REQUIRING CORRECTIVE ACTION: None

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

3.3.2.43 Geauga County - Notre Dame Cathedral Latin - American Red Cross - Congregate Care Center

Geauga County and the American Red Cross (ARC) successfully demonstrated the target capability of providing the resources to provide services and accommodations consistent with ARC planning guidelines. The ARC shelter manager was in charge of the center and prepared the following stations to help ensure they meet the requirement set forth by planning guidance.

The Registration/Reunification station had two volunteers, each volunteer ensured that each evacuee completely filled out the Care Center Registration form, this is how everyone is tracked. The no contaminated people had their form stamped to show that they went through he monitoring/decontamination process. There were separate shower and changing areas for both male and female evacuees.

Mass Care Feeding can provide 150 boxed meals for evacuees by a restaurant that has an agreement with the ARC, the kitchen within the school could provide meals for 400 people at one time once in operation. The ARC has access to a mobile kitchen unit that when set up can feed approximately 700 people.

Client Services has clothing available is storage to clothe at least 500 people and more could be available from other chapters within the state. The living area was only set up with two cots for this demonstration. Based on the amount of space there would be enough cots to accommodate 150 evacuees based on the 2 sq/ft per person minimum standard.

There were three health department personnel to brief incoming evacuees whether or not they have their KI with them and if not the CCC have 1,600 tablets available and more available from the Geauga County Emergency Operations Center. After evacuees have been processed through the stations, they have the option to stay in the shelter or leave. This shelter has the capability to process 3,600 evacuees with 150 of them can stay at the center if they need it. When the shelter is at 75% capacity the Center manager would contact ARC Executive in the county EOC and

request another Center be opened. The center manager provided a schedule of personnel so the center has 24/7 operability.

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

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

SECTION 4: CONCLUSION

This section summarizes the findings from the of the evaluation of all jurisdictions and functional entities that participated in the October 2 and 3, 2012, Radiological Emergency Preparedness Full Participation Plume Exposure Pathway and Ingestion Pathway exercises to test the offsite emergency response capabilities of State and local governments in the 10-mile and 50-mile EPZs surrounding the Perry Nuclear Power Plant.

There were no Deficiencies or Areas Requiring Corrective Action (ARCAs) for the State of Ohio or Lake, Geauga or Ashtabula Counties. There were no ARCAs from a past exercise that were corrected. There were no ARCAs that were successfully redemonstrated during the exercises. There were five Plan Issues identified during the exercises: three Plan Issues for the State of Ohio, one Plan Issues for Lake County, and one Planning Issue for Geauga County.

A previous Plan Issue (03-10-5.a.1-A-03), which was issued under Criterion 5.a.1, was corrected by the State of Ohio prior to the exercise through submission of an updated procedure. The procedural updates were verified by the evaluator during this exercise.

APPENDIX A: IMPROVEMENT PLAN

Issue Number: 47-12-3a1-P-05	Criterion: 3a1
ISSUE: Attachment 3 of the Geauga County EOP includes the Dosimetry Coordinator Guide (Personal dosimetry) and the Dosimetry Report Form. On the Guide, Step 2 and Step 3, the turn back value was listed as 5 R. On the Dosimetry Report Form, back page (instructions) the turn back value within the 10-mile EPZ was listed as 1 R and 5 R for outside of the 10-Mile EPZ. There were no issues during the demonstration, however having only one value on the Dosimetry Coordinator Guide, 5 R, could cause potential confusion when briefing emergency workers.	
RECOMMENDATION: Change the Dosimetry Coordinator Guide so that Step 2 and Step 3 have a blank space to list the turn back value. SCHEDULE OF CORRECTIVE ACTIONS: Eliminating the 5R value on the Dosimetry Coordinator Guide and replacing it with a blank fill?in space will provide the flexibility needed for moving into the Intermediate and the Recovery Phases of an accident. The Dosimetry Coordinator Guide will be revised to incorporate this feature, and the revision will be implemented by the end of February 2013.	
CORRECTIVE ACTION DESCRIPTION: Eliminating the 5R value on the Dosimetry Coordinator Guide and replacing it with a blank that can be filled in, will provide the flexibility needed for moving into the Intermediate and the Recovery Phases of an accident. The Dosimetry Coordinator Guide will be revised to incorporate this feathur, and the revision will be implementented by the end of February 2013.	
CAPABILITY: Responder Safety and Health	PRIMARY RESPONSIBLE AGENCY:
CAPABILITY ELEMENT: Planning	START DATE:
AGENCY POC:	ESTIMATED COMPLETION DATE:

Issue Number: 47-12-6a1-P-04	Criterion: 6a1
ISSUE: The Lake County Emergency Management Agency Radiological Emergency Response Plan requires one portal monitor to be demonstrated at the Reception Center. According to the County, guidance assumes one evacuee to be monitored every 15 seconds (four persons per minute, or 2880 persons in 12 hours) without delay and without contamination. Using the procedure demonstrated, the County could process only 2160 persons in 12 hours.	
RECOMMENDATION: Plans and procedures for Lake, Geauga and Ashtabula Counties should be revised to articulate the logistics for assuring timely availability of sufficient portal monitoring equipment to meet minimum throughput requirements. SCHEDULE OF CORRECTIVE ACTIONS: The Counties agree that it will be a challenge to complete monitoring in a timely manner using current procedures. In order to enhance their ability to handle both RERP-related monitoring and any all?hazards radiological monitoring that may be needed, additional portal monitors will be obtained. These monitors will be portable and available for use anywhere within any of the Ohio RERP Counties. Additional monitors will be made available in the most populated decontamination centers in order to efficiently process evacuees. These new monitors are scheduled to be in place in 2013. The plans and applicable Standard Operating Guides (SOGs) in each County will then be updated prior to the next biennial exercise to reflect the availability of these new monitors and the logistics for making them operational in a timely manner.	
CORRECTIVE ACTION DESCRIPTION: The Counties agree that it will be a challenge to complete monitoring in a timley manner using current procedures. in order to enhance their ability to handle both RERP-related monitoring and any all-hazards radiological monitoring that may be needed, additional portal monitors will be obtained. These monitors will be portable and available for use anywhere within any of the Ohio RERP Counties. Additional monitors will be made available in the most populated decontamonation centers in oreder to efficiently process evacuees. These new monitors are scheduled to be in place in 2013. The plans and applicable Standard Operating Guides (SOGs) in each county will then be updated prior to the next biannial exercise to reflect the availability of these new monitors and the logistics for making them operational in a timely manner.	
CAPABILITY: Critical Resource Logistics and Distribution	PRIMARY RESPONSIBLE AGENCY:
CAPABILITY ELEMENT: Planning	START DATE:
AGENCY POC:	ESTIMATED COMPLETION DATE:

Issue Number: 47-12-2e1-P-02	Criterion: 2e1
ISSUE: Ingestion Zone Recovery and Reentry Group (IZRRAG) procedures and Radiological Assessment Branch Director Procedure 350, dated 4/4/2012, do not provide detailed direction regarding how to design ingestion and deposition soil/vegetation sampling plans to ensure the plume disposition area is fully characterized.	
RECOMMENDATION: Update appropriate IZRRAG and Intermediate Phase procedures so sampling plan is developed to fully characterize the isotopic mix of the plume deposition. Consider the recommendations found in FRMAC Monitoring Division Manual, Volume 1, describing factors to consider when developing monitoring and sampling plans. SCHEDULE OF CORRECTIVE ACTIONS: The State of Ohio will direct the IZRRAG member agencies to review and, as appropriate, revise their procedures to provide better guidance for sampling plan development. These changes will be implemented no later than March of 2014.	
CORRECTIVE ACTION DESCRIPTION: A review of the maps in question revealed that the State map was in error, not the County map. Map corrections will be completed no later than Febraury 28, 2013.	
CAPABILITY: Food and Agriculture Safety and Defense	PRIMARY RESPONSIBLE AGENCY:
CAPABILITY ELEMENT: Planning	START DATE:
AGENCY POC:	ESTIMATED COMPLETION DATE:

Issue Number: 47-12-2e1-P-03	Criterion: 2e1
ISSUE: State Dose Assessment Systems Operator Procedure 352, dated 4/5/2012, does not provide a technical description or basis for the deposition sample calculations for 1st, 2nd, and 50-year dose and the subsequent Derived Response Level (DRL). The current procedure instructs the Dose Assessment Systems Operator to input isotopic information into the appropriate Excel spreadsheet or RASCAL. State Dose Assessment Personnel were unable to reference a procedure or document with the technical basis for the Excel spreadsheet calculations. It was noted that during the exercise, the DRLs calculated using the Excel spreadsheet were much lower that those provided in the scenario even though the same sample results were used in the calculations.	
RECOMMENDATION: Update appropriate assessment group and Intermediate Phase procedures to ensure that the technical basis of the Intermediate Phase Relocation Worksheet is provided. Also, require the Assessment Group to ensure that the worksheet and formulas are up-to-date prior to use. SCHEDULE OF CORRECTIVE ACTIONS: The State of Ohio will direct the IZRRAG member agencies to review the sample processing methods and procedures and determine which process best meets the needs of the IZRRAG. Once this is determined, appropriate changes will be made to the affected procedures. This process will be completed no later than March of 2014.	
~~CORRECTIVE ACTION DESCRIPTION: A review of the maps in question revealed that the State map~~ was in error, not the County map. Map corrections will be completed no later than Febraury 28, 2013.	
CAPABILITY: Food and Agriculture Safety and Defense	PRIMARY RESPONSIBLE AGENCY:
CAPABILITY ELEMENT: Planning	START DATE:
AGENCY POC:	ESTIMATED COMPLETION DATE:

Issue Number: 47-12-1e1-P-01	Criterion: 1e1

ISSUE: Some State and County emergency planning maps showed inconsistent boundaries separating Sub-Areas 1 and 3. The boundary between Sub-Area 1 and 3 is not the same on the State Evacuation Routes Map and Lake County Emergency Planning Zones Map for the Perry Nuclear Power Plant.

On the State Map the boundary is shown as running along Middle Ridge Road/County Highway 22 from Sub-area 2 on the east to the intersection with U.S. Route 20.

On the Lake County map used in the EOC, the boundary runs from Sub-Area 2 on the east to Call Road/ County Highway 109, then south to the North Perry/Perry Village boundary, then west to U.S. Route 20.

The Lake County map shows Sub-area 1 running just outside the 2-mile EPZ on the south. The State map shows Sub-Area 3 as including part of the 2-mile EPZ on the north. i.e., as including part of Sub-Area 1 as depicted on the Lake County map.

RECOMMENDATION: The State and Lake County maps used to depict the boundary between Sub-Areas 1 and 3 for the Perry Nuclear Power Plant should be reconciled to show the same Sub-Area boundary.

SCHEDULE OF CORRECTIVE ACTIONS:
A review of the maps in question revealed that the State map was in error, not the County map. Map corrections will be completed no later than February 28, 2013.

CORRECTIVE ACTION DESCRIPTION: A review of the maps in question revealed that the State map was in error, not the County maps. Map corrections will be completed no later than February 28,2013.

CAPABILITY: Food and Agriculture Safety and Defense	PRIMARY RESPONSIBLE AGENCY:
CAPABILITY ELEMENT: Planning	START DATE:
AGENCY POC:	ESTIMATED COMPLETION DATE:

APPENDIX B: EXERCISE TIMELINE

Table 1, below, presents the times at which key events and activities occurred during the PNPP Full Participation Plume Exposure Pathway Exercise conducted on October 2, 2012.

Table 1 - Exercise Timeline
DATE: 2012-10-02, SITE: Perry Nuclear Power Plant, OH

Emergency Classification Level or Event	Time Utility Declared	OH-EOC-ER—	OH-EOC-AR—	OH-State JIC-PNPP-Ireland CC	LAK-EOC—	ASH-EOC—	GEA-EOC—
Unusual Event	0754	N/A	0818		0803	0803	0803
Alert	0824	N/A	0834		0834	0834	0834
Site Area Emergency	1001	1022	1013		1012	1012	1012
General Emergency	1225	1248	1239	1236	1237	1236	1237
Simulated Rad. Release Started	1235	1235	1235	1246	1237	1237	1237
Simulated Rad. Release Terminated	N/A	N/A	N/A		N/A		
Facility Declared Operational		0935	0935	1125	0925	0925	0859
Declaration of State of Emergency		1038	1038		1035	1018	1020
Exercise Terminated		1434	1434	1445	1430	1433	1430
General Instructional Message		1022	N/A				
Early Precautionary Action: Relocate School Children		N/A	N/A		1017		
Early Precautionary Action: Restrict Air and Rail Traffic		1028	1029				
Early Precautionary Action: Close Parks		1025	1025				
Early Precautionary Action: Livestock Advisory		1017	1017				
Early Precautionary Action: Restrict Boating Traffic		1025	1025				
1st Protective Action Recommendation		1248		1251			
1st Protective Action Decision:				1255	1252	1252	1251
1st Siren Activation					1308		
1st EAS or EBS Message					1311		
2nd Protective Action Recommendation (Revised)		1255		1302			
2nd Protective Action Decision: (Revised)				1310	1300	1300	1259
KI Administration Decision: Emergency Workers		1248	1247	1317			
KI Administration Decision: Institutionalized Persons		1248	1247	1317			
KI Administration Decision: Grneral Public		1248	1247	1317			

APPENDIX C: EXERCISE EVALUATORS AND TEAM LEADERS

The following is a list of the personnel that evaluated the Perry Nuclear Power Plant REP Full Participation Plume Exposure Pathway Exercise on October 2, 2012. The list includes the evaluation team leadership and all evaluators. Organizational affiliations are as follows:

DHS/FEMA RV – Department of Homeland Security/Federal Emergency Management Agency Region V

DHS/FEMA HQ – Department of Homeland Security/Federal Emergency Management Agency Headquarters

ICFI - ICF International

Radiological Assistance Committee, Chairman William E. King DHS/FEMA RV

Exercise Director Dwaine K. Warren DHS/FEMA RV

Assistant Exercise Director Gary Naskrent DHS/FEMA RV

Site Specialist – State of Ohio Carl Bebrich DHS/FEMA RV

Team Leader – State of Ohio Carolyn Sturghill DHS/FEMA RV

Team Leader – Lake County Edward Golinski DHS/FEMA RV

Team Leader – Geauga County Dan Kanakares DHS/FEMA RV

Team Leader – Ashtabula County James King DHS/FEMA RV

DATE: 2012-10-02, SITE: Perry Nuclear Power Plant, OH

LOCATION	EVALUATOR	AGENCY
State of Ohio - Initial Notification Point	Mark Dalton	ICFI
State of Ohio - Emergency Operations Center - Executive Room	Bruce Swiren	ICFI
State of Ohio - Emergency Operations Center - Operations Room	Mark Dalton	ICFI
State of Ohio - Emergency Operations Center - Assessment Room	Marcy Campbell David Jacobson	ICFI ICFI
State of Ohio - Emergency Operations Center - Joint Information Center	Bridget Ahlgrim	FEMA HQ
State of Ohio - State Joint Information Center -Perry Nuclear Power Plant - lakeland Comunity College	John D. Simpson	FEMA RIV
State of Ohio - Perry Nuclear Power Plant Joint Information Center - Public Inquiry Hotline - Lakeland Community College	Debra Schneck	ICFI
State of Ohio - Emergency Operations Facility	Wes Ryals	ICFI
State of Ohio - Lake County Emergency Operations Center - State Radiological Analyst	Jill Leatherman	ICFI
State of Ohio - Department of Natural Resources - Lake Erie Primary Alert and Notification Dosimetry Control Officer Briefing	Lynn Steffensen	ICFI
State of Ohio - Department of Natural Resources- Lake Erie Primary Alert and Notification	Lynn Steffensen	ICFI
State of Ohio - RIMC Facility - Dosimetry Distribution Point - Briefing	Bruce Swiren	ICFI
State of Ohio - Field Monitoring Team Coordinator	David Stuenkel	ICFI
State of Ohio - Field Monitoring Team #1	Jill Leatherman	ICFI
State of Ohio - Field Monitoring Team #2	Patrick Taylor	ICFI
State of Ohio - Field Monitoring Team #3	Dennis Wilford	ICFI
State of Ohio - Sampling Screening Point	David Seebart	ICFI
State of Ohio - Ohio Department of Health - Laboratory	David Jacobson	ICFI
State of Ohio - Field Sampling Team - Dosimetry Control Officer Briefing	Dennis Wilford	ICFI
State of Ohio - Field Monitoring Team Coordinator - Day 2	David Stuenkel	ICFI
State of Ohio - Sampling Screening Point - Day 2	Thomas Reynolds	ICFI
State of Ohio - Field Team Center Coordinator	Thomas Reynolds	ICFI
State of Ohio - Field Sampling Team - EPA	Dennis Wilford	ICFI
State of Ohio - Field Sampling Team - ODA	Paul Ward	FEMA HQ
State of Ohio - Field Sampling Team - ODNR	Patrick Taylor	ICFI
State of Ohio - Assessment Room - IZRRAG	Marcy Campbell Michael Petullo	ICFI ICFI
State of Ohio - Executive Room - IZRRAG	Bridget Ahlgrim	FEMA HQ
State of Ohio - Operations Room - IZRRAG	Michael Petullo	ICFI
Lake County - Initial Notification Point	David Kayen	ICFI
Lake County - Emergency Operations Center	Carl Bebrich Todd Gemskie David Kayen	FEMA RV FEMA RV ICFI
Lake County - Lakeland Community College - Joint Information Center	Debra Schneck	ICFI
Lake County - Painesville City School District - Evacuation School	Michael Burriss	ICFI
Lake County - Riverside School District - School Evacuation	Delwyn Kinsley	FEMA RV
Lake County - Sheriff's Office -TACP/DCO Briefing	Edward Diaz	FEMA RV

Lake County - Lake County Sheriff's Office - Traffic and Access Control	Edward Diaz	FEMA RV
Lake County - Fairport Harbor Village Fire Department - Backup Route Alerting - DCO Briefing	Kerris Bates	FEMA HQ
Lake County - Fairport Harbor Village Fire Department - Backup Route Alerting	Kerris Bates	FEMA HQ
Lake County - Field Monitoring Teams - Dosimetry Control Officer Briefing	Robert Lemeshka	ICFI
Lake County - Field Monitoring Team Coordinator	David Stuenkel	ICFI
Lake County - Field Monitoring Team #1	Kent Tosch	ICFI
Lake County - Field Monitoring Team #2	David Seebart	ICFI
Lake County - Monitoring and Decontamination of Evacuees - Willoughby Fire Department - South High School	Kerris Bates	FEMA HQ
Lake County - Willoughby Fire Department - South High School - Reception Center	Michael Burriss	ICFI
Lake County - Willoughby Fire Department - South High School - Monitoring & Decontamination of Evacuee Vehicles	Kent Tosch	ICFI
Lake County - Mentor Fire Department - Emergency Worker DCO Briefing	Robert Lemeshka	ICFI
Lake County - Mentor Fire Department - Mentor Conditioning Center - Emergency Worker Monitoring and Decontamination	Edward Diaz	FEMA RV
Lake County - Mentor Fire Department - Mentor Conditioning Center - Emergency Worker Monitoring and Decontamination of Vehicles	Robert Lemeshka	ICFI
Lake County - South High School - Reception Center - American Red Cross	Debra Schneck	ICFI
Lake County - MS-1 Transportation - Dosimetry Control Officer Briefing	Christopher Bellone	FEMA RV
Lake County - Perry Joint Fire District - Medical (MS-1) Services - Transportation	Christopher Bellone	FEMA RV
Lake County - Lake West Medical Center - Medical (MS-1) Services - Facility	Earl Shollenberger	ICFI
Ashtabula County - Initial Notification Point	Jesse King	
Ashtabula County - Emergency Operations Center	Jesse King Delwyn Kinsley William Vocke	FEMA RV ICFI
Ashtabula County - Lakeland Community College - Joint Information Center	Debra Schneck	ICFI
Ashtabula County - Geneva on the Lake Village Police Department - Traffic Control Point/Access Control Point - Briefing	Carl Wentzell	ICFI
Ashtabula County - Geneva on the Lake Village Police Department - Traffic Control Point/Access Control Point - Interview	Carl Wentzell	ICFI
Ashtabula County - Geneva on the Lake Village Fire Department - Backup Route Alerting - DCO Briefing	Robert Noecker	ICFI
Ashtabula County - Geneva on the Lake Village Fire Department - Backup Route Alerting	Robert Noecker	ICFI
Ashtabula County - Conneaut Fire Department - Conneaut Middle School - Reception Center	Danny Loomis	ICFI
Ashtabula County - Monitoring and Decontamination of Evacuees - Conneaut Fire Department	John D. Simpson	FEMA RIV
Ashtabula County - Conneaut Fire Department - Evacuee Monitoring and Decontamination of Vehicles	Earl Shollenberger	ICFI
Ashtabula County - Conneaut Middle School - Congregate Care Center	Danny Loomis	ICFI

Geauga County - Initial Notification Point	David Ortman	FEMA RV
Geauga County - Emergency Operations Center	Clark Duffy Thomas Hegele	ICFI ICFI
Geauga County - JIC - Lakeland Community College	Debra Schneck	ICFI
Geauga County - Ohio Highway Patrol Post #28 - Dosimetry Control Briefing	David Ortman	FEMA RV
Geauga County - Ohio Highway Patrol - Traffic and Access Control Point	David Ortman	FEMA RV
Geauga County - Notre Dame Cathedral Latin - Reception Center	Clinton Crackel	FEMA RV
Geauga County - Notre Dame Cathedral Latin - Munson Fire Department - Evacuee Decontamination	Christopher Bellone	FEMA RV
Geauga County - Notre Dame Cathedral Latin - Munson Fire Department - Evacuee Monitoring and Decontamination of Vehicles	Wes Ryals	ICFI
Geauga County - Notre Dame Cathedral Latin - American Red Cross - Congregate Care Center	Clinton Crackel	FEMA RV
* Team Leader		

APPENDIX D: ACRONYMS AND ABBREVIATIONS

Acronym	Meaning
ACP	Access Control Points
AMS	Aerial Measuring Services
AR	Assessment Room
ARC	American Red Cross
CAS	Crisis Action System
CC	Care Center
CCC	Congregate Care Center
CDE	Committed Dose Equivalent
CO	Communications Officer
DC	Dosimetry Coordinator
DCO	Dosimetry Control Officer
DIL	Derived Intervention Level
DRD	Direct Reading Dosimeter
DRL	Derived Response Level
EAS	Emergency Alert Station
ECL	Emergency Classification Level
ED	Executive Director
EDL	Executive Discussion Line
EG	Executive Group
EMA	Emergency Management Agency
EMAD	Emergency Management Agency Director
EMD	Emergency Management Director
EMO	Emergency Medical Officer
EOC	Emergency Operations Center
EOF	Emergency Operating Facility
EOP	Emergency Operations Plan
EPA	Environmental Protection Agency
EPI	Emergency Planning Information
EPZ	Emergency Planning Zone
ER	Executive Room
ESF	Emergency Support Functions
EW	Emergency Workers
FD	Fire Department
FEMA	Federal Emergency Management Agency

FENOC	First Energy Nuclear Operating Company
FMT	Field Monitoring Team
FMTC	Field Monitoring Team Coordinator
FST	Field Sampling Team
FTC	Field Team Center
FTCC	Field Team Center Coordinator
GCSD	Geauga County Sheriff's Department
GE	General Emergency
GETS	Government Emergency Telecommunications Service
GHDL	General Health District Liaison
GIS	Geographical Information System
GPS	Global Positioning System
IC	Incident Commander
INM	Initial Notification Message
INP	Initial Notification Point
JIC	Joint Information Center
JPIC	Joint Public Information Center
LCEMA	Lake County Emergency Management Agency
LCEOC	Lake County Emergency Operations Center
LCGHD	Lake County General Health District
LCSCCDC	Lake County Sherriff Central Communications Dispatch Center
LEADS	Law Enforcement Automated Data System
LEC	Law Enforcement Coordinator
MARCS	Multi Agency Radio Communication System
MDT	Mobile Data Terminal
MFD	Mentor Fire Department
NOAA	National Oceanic Atmospheric Administration
NRC	Nuclear Regulatory Commission
OC	Operations Chief
OEMA	Ohio Emergency Management Agency
OEPA	Ohio Environmental Protection Agency
OR	Operations Room
ORO	Offsite Response Organization
OSHP	Ohio State Highway Patrol
OSL	Optically Stimulated Luminescence
OSLD	Optically Stimulated Luminescent Dosimeter
OSP	Ohio State Patrol
PAD	Protective Action Decisions
PAG	Protective Action Guide
PAR	Protective Action Recommendation

PCSD	Painesville City School District
PIO	Public Information Officier
PNPP	Perry Nuclear Power Plant
PPE	Personal Protective Equipment
PRD	Permanent Record Dosimeter
PSAP	Public Safety Answering Point
RABD	Radiological Assessment Branch Director
RAC	Regional Assistance Committee
RACES	Radio Amateur Civil Emergency Services
REP	Radiological Emergency Preparedness
RERP	Radiological Emergency Response Plan
RMA	Radioactive Material Area
RO	Radiation Officer
RPM	REP Program Manual
RZ	Restricted Zone
SAE	Site Area Emergency
SEOC	State Emergency Operations Center
SIB	Special Information Bulletin
SMA	Sample Management Area
SO	Sheriff's Office
SOG	Suggested Operating Guideline
SSP	Sample Screening Point
TCP	Traffic Control Points
TEDE	Total Effective Dose Equivalent
TSA	Transportation Staging Area
UE	Unusual Event
USEPA	United States Environmental Protection Agency
VHF	Very High Frequency
VIN	Vehicle Identification Number
WENS	Wireless Emergency Notification System
WFD	Willoughby Fire Department

APPENDIX E: EXERCISE PLAN

This appendix lists the exercise criteria, which were scheduled for demonstration in the Perry Nuclear Power Plant Radiological Emergency Preparedness Full Participation Plume Exposure Pathway and Ingestion Pathway Exercise conducted on October 2 and 3, 2012, respectively, and the offsite extent-of-play agreements accepted by DHS/FEMA Region V on September 12, 2012.

The exercise criteria, contained in the DHS/FEMA REP Program Manual, dated April 2012, represent a functional translation of the planning standards and evaluation criteria of 0654/FEMA-REP-1, Rev.1, "Criteria for the Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," November 1980. Because the exercise criteria are intended for use at all nuclear power plant sites, and because of variations among offsite plans and procedures, an extent-of-play agreement is prepared by the State and accepted by DHS/FEMA to provide evaluators with guidance on expected actual demonstration of the criteria.
Exercise Criteria Listed on the following pages are the specific radiological emergency preparedness criteria that were scheduled for demonstration during this exercise.

RADIOLOGICAL EMERGENCY PREPAREDNESS FULL PARTICIPATION EXERCISE

PERRY NUCLEAR POWER PLANT

October 2, 2012

EXTENT OF PLAY AGREEMENT:

STATE OF OHIO

The extent of play for the Perry Nuclear Power Plant was developed in consultation with the April 2012 REP Program Manual.

Criteria that can be re-demonstrated immediately for credit, at the decision of the evaluator, include the following: 3.a.1, 3.d.1, 3.d.2, 6.a.1, 6.b.1, 6.c.1 and 6.d.1. Criteria that may be re-demonstrated, as approved on a case-by-case basis by the Chairman of the Radiological Preparedness Coordinating Committee, include the following: 2.a.1, 2.b.1, 2.b.2, 5.a.1 and 5.b.1.

Plume Phase field activities will be conducted on Monday October 1, 2012, and Ingestion Phase field activities will be conducted on Tuesday October 2, 2012 – while the in-sequence Plume Phase activities at the EOF, SEOC and PNPP JIC will be conducted on Tuesday October 2, 2012, and the Ingestion Phase activities for the SEOC will be conducted on Wednesday October 3, 2012, respectively.

The field and laboratory activities in support of the Plume and Ingestion Pathway exercises, including field team coordination, field monitoring and sampling activities, sample processing and laboratory analysis, will be conducted out of sequence relative the demonstration of EOF, SEOC and PNPP JIC activities.

Participating organizations for the Plume Pathway exercise are as follows:

Ohio Governor's Office/Representative
Department of Public Safety
Ohio Homeland Security
Ohio Emergency Management Agency
Ohio Highway Patrol
Ohio Department of Agriculture
Ohio Department of Health
Ohio Attorney General's Office Ohio
Ohio Department of Natural Resources
Ohio Department of Transportation
Ohio Environmental Protection Agency
Ohio National Guard
Public Utilities Commission of Ohio
American Red Cross

State personnel who staff field positions will be pre-positioned. These functions are:

- PNPP Emergency Operations Facility
- Field Monitoring Team Coordination
- Field Monitoring Teams (OEMA, ODH)
- Field Sample Screening Point

- PNPP Joint Information Center
- County Liaisons (Lake, Ashtabula and Geauga Counties)

During the Plume Phase, field monitoring team coordination will involve three positions: State FMT Coordinator, State Assistant FMT Coordinator, and Lake County FMT Coordinator. Only the State FMT Coordinator and the Assistant Coordinator will demonstrate during the out of sequence Plume Phase activities on Monday October 1.

All three field team coordination positions will be demonstrated on Tuesday October 2, with State assignments split between Plume and Ingestion Phase activities as follows: The State FMT Coordinator from the Plume Phase activities will become the State FST Coordinator for the Ingestion Phase field sampling activities; and the State Assistant FMT Coordinator from the Plume Phase exercise will become the State FMT Coordinator for the Plume Phase FMT activities and will coordinate with the Lake County FMT Coordinator regarding Plume Phase monitoring and air sampling activities that will be conducted in sequence with SEOC Assessment Room activities.

The Sample Screening Point (SSP) will be demonstrated on October 2, 2012, at the Field Team Center (FTC) located at the Lake County Health District Offices. The SSP activities will support out-of-sequence State FST Ingestion Phase activities.

To simulate travel time, the EOF and PNPP JIC staff will mobilize 30-45 minutes after the SEOC is notified of the Alert ECL. Field team positions will mobilize to their assigned locations approximately 20 minutes after the SEOC is notified of the PNPP Alert ECL declaration.

The Ingestion Phase exercise at the State Emergency Operations Center (SEOC) will be coordinated by two Controllers. The Controllers will facilitate the tabletop discussions to keep them on track and provide time-jump data inputs in accordance with the Scenario and Extent-of-Play Agreement.

Plume Pathway exercise events and results will not drive the Ingestion Pathway exercise, which will have data inputs that are unconnected to the Plume Pathway exercise.

Participating organizations for the Ingestion Pathway exercise are as follows:

Ohio Governor's Office/Representative Ohio Department of Public Safety

Ohio Attorney General's Office
Ohio Emergency Management Agency (OEMA)
OEMA Radiological Instrument and Maintenance Calibration (RIMC) Laboratory
Ohio Department of Agriculture
Ohio Environmental Protection Agency
Ohio Department of Health (ODH)
ODH Laboratories
Ohio State University Extension
Ohio Department of Natural Resources

The IZRRAG participants will be prepositioned in the SEOC on Wednesday October 3, 2012. Lake, Ashtabula and Geauga Counties will not participate in the Ingestion Phase exercise, as they demonstrated their Re-entry, Relocation and Return requirements in 2008. The Counties will be simulated via a SimCell.

The ODH Laboratory participants will be prepositioned and will demonstrate Wednesday October 3, 2012.

State personnel who staff Ingestion Pathway field positions will be pre-positioned to demonstrate on October 2, 2012. These functions are:

- Field Team Center (Lake County Health District Offices)
- Field Sampling Teams (ODA, OEPA,ODNR)
- Field Sample Screening Point

EVALUATION AREA 1 -- EMERGENCY OPERATIONS MANAGEMENT

Sub-element 1.a – Mobilization.

Intent: Sub-element **1.a** 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).

Extent of Play

The Ohio Highway Patrol District 6 Dispatch Center, co-located with State Emergency Operations Center (SECO) in Columbus, Ohio, will receive the initial notification over the Perry Nuclear Power Plant (PNPP) dedicated 5-Way Communication Line. The

(SEOC) Assessment Room, which simultaneously receives 5-Way notification calls and follow-on facsimile notifications, will not be staffed during the initial call. The SEOC Assessment Room will be activated following the initial notification in accordance with plans and procedures. Once the SEOC Assessment Room is activated, all subsequent voice notifications (as well as continued facsimile notifications) will be received there.

The State will mobilize all of the agencies that have responsibilities in the SEOC – primarily the Executive Group, Dose Assessment Group, and State Joint Information Center (JIC).The State will also mobilize personnel to respond to the Lake and Geauga County Emergency Operations Centers (EOCs), PNPP JIC, and to the PNPP Emergency Operations Facility (EOF).

The State representatives assigned to the PNPP EOF, PNPP JIC, and the County EOCs will be prepositioned in the area and mobilize shortly after the exercise begins in order to simulate travel time.

On Monday October 1, 2012, the State Field Monitoring Team (FMT) Coordinator and State FMTs will be prepositioned at 5:30 AM at the OEMA Radiological Instrumentation, Maintenance and Calibration (RIMC) facility located on the west campus of the Ohio State University in Columbus, Ohio. They will assemble and load field gear into transport vehicles, receive a radiological briefing and deploy to the Lake County EOC where they will perform operational checks on field instruments and prepare to be deployed to Controller-injected field assignments.

The Mobile Communications Van, which is used for back-up communications, will not be demonstrated.

The Sample Screening Point (SSP) will be participating twice during the exercise. On October 1, 2012 the SSP will be set up at the Lake County EOC to receive plume phase samples from the FMTs. On October 2, 2012 the SSP will be established at the Field Team Center (FTC) located at the Lake County Health District Offices to support out of sequence State FST Ingestion Phase activities.

Sub-element 1.b – Facilities.

Intent: Sub-element **1.b** is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have facilities to support the emergency response.

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

Extent of Play

NA – The SEOC will not demonstrate this criterion. The baseline exercise for demonstration of this criterion was conducted in April 2002.

Sub-element 1.c – Direction and Control.

Intent: Sub-element **1.c** 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).

Extent of Play

Direction and control of State activities will be demonstrated at the SEOC. The Executive Director of Ohio EMA will coordinate decisions on behalf of the Governor's Office from the SEOC Executive Room. The Ohio Department of Health (ODH) is responsible for the determining the State Protective Action Recommendations (PARs) in the SEOC Assessment Room and will provide PARs and periodic briefings to the SEOC Executive Group.

Sub-element 1.d – Communications Equipment.

Intent: Sub-element **1.d** 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).

Extent of Play

The primary means of communication between the SEOC, the County EOCs, PNPP JIC, and PNPP EOF is by commercial and/or dedicated telephone. Backup communications (radio and/or cellular phones) will be demonstrated.

The State of Ohio is in the process of integrating the use of WebEOC crisis information management software into its operations. The use of WebEOC during this exercise will not be evaluated, but any data products will be made available to the Evaluators upon request.

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

Intent: Sub-element **1.e** 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).

Extent of Play

The State will demonstrate the use of equipment, maps and displays to support emergency operations. The maps traditionally used in the SEOC will be available and used for exercise evaluation purposes.

EVALUATION AREA 2 – PROTECTIVE ACTION DECISION MAKING

Sub-element 2.a – Emergency Worker Exposure Control.

Intent: Sub-element **2.a** 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.4).

Extent of Play

The SEOC Dose Assessment Group will consider PAGs and Administrative Limits to develop State Protective Action Recommendations (PARs), including emergency worker exposure limits and KI, based on their technical evaluation of the available data. Recommendations will be briefed to the SEOC Executive Group and, subsequently, by the Executive Group to the Lake, Ashtabula and Geauga County EOCs. The County EOCs will disseminate the recommendations to their emergency workers. Field monitoring data will be provided to the SEOC Dose Assessment Group via Controller injects.

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

Intent: Sub-element **2.b** 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).

Extent of Play

The SEOC Dose Assessment Group will evaluate the Licensee and other appropriate information and complete independent dose projections based on that information and Controller-injected simulated field monitoring data. Assessment Room staff will evaluate the data and brief PARs to the SEOC Executive Room, including dosimeter correction factors, as appropriate. Approved State PARs will then be briefed to the Lake, Ashtabula, and Geauga County EOCs via a conference line established in the Assessment Room.

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

Extent of Play

The Governor, or designee, will demonstrate the ability to make appropriate State PARs based on technical information and recommendations from the SEOC Dose Assessment Group. Recommendations concerning the use of KI by the general public, institutionalized individuals and emergency workers are the responsibility of the ODH. They are made in the SEOC Dose Assessment Room in accordance with the ODH KI policy and will accompany the State PAR.

Coordination will take place between the SEOC Executive Room and Lake, Ashtabula and Geauga County EOC Executive Groups to ensure consideration of local needs. After the Protective Action Decision (PAD) is made, the Counties will disseminate protective actions to the general public.

At least one (1) PAD will be demonstrated.

Sub-element 2.c – PAD Consideration for the Protection of Persons with Disabilities and

Access/Functional Needs.

Intent: Sub-element **2.c** is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to determine PADs, 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).

Extent of Play

The recommendation for groups of persons with disabilities and access/functional needs to take KI is issued by the ODH in the SEOC Assessment Room as part of the PAR. Upon being briefed to and approved by the Executive Group, the PAR, is then forwarded to Lake, Ashtabula and Geauga Counties for implementation.

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

Intent: Sub-element **2.d** 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).

Extent of Play

At the Site Area Emergency ECL, the SEOC Dose Assessment Room issues a precautionary protective action recommendation to shelter livestock and place them on stored feed and protected water within the 10-mile Emergency Planning Zone (EPZ).

During the Ingestion Phase, the Ingestion Zone Recovery and Re-entry Advisory Group (IZRRAG) is activated and the recommendation is re-assessed based on Controller-injected data. The recommendation is processed through the Executive Room and distributed to the media via the JIC, the agricultural community via the ODA and or OSU Extension, and the affected County EMAs via Ohio EMA. The issuance of advisories to the public, the agricultural community and County EMAs will be simulated. This criterion will be demonstrated on October 3, 2012.

The IZRRAG then issues sample requests to the Field Team Center (FTC). As the Controller-injected results of (simulated) sample analysis are received from the Ohio Department of Health Lab, advisories are modified or lifted and distributed as described earlier.

Federal agencies will participate with IZRRAG Representatives at the SEOC and FTC demonstrations to facilitate coordination of State and Federal resources.

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

Intent: Sub-element **2.e** 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 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).

Extent of Play

Relocation, Re-entry, and Return (RRR) decision-making will be demonstrated by tabletop discussions between the State Executive Room, the IZRRAG, and simulated County officials. These groups may consult with participating Federal agencies representing the Advisory Team for additional guidance. County interaction will be simulated by a Control Cell, as the Counties met their RRR requirements in 2008.

EVALUATION AREA 3 – PROTECTIVE ACTION IMPLEMENTATION

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

Intent: Sub-element **3.a** 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).

Extent of Play

Direct Reading Dosimeters (DRD)s, Permanent Record Dosimeters (PRDs) and KI will be issued to State of Ohio workers who have assignments in the 10-mile EPZ.

A dosimetry briefing for the FMTs will be conducted at the Radiological Instrument Maintenance and Calibration (RIMC) Facility in Columbus during their out of sequence demonstration at approximately 5:30 am on October 1. The State FMT Coordinator and

the FMTs will mobilize from the RIMC to the Lake County EOC prior to the evaluated field activities.

All State field activities are pre-positioned and will be conducted out of sequence on Monday October 1, 2012. The State Field Monitoring Team (FMT) Coordinator will record the exposure of the State FMTs and Sample Screening Point personnel on Monday October 1,2012.

If the scenario does not provide for the demonstration of turn back limits, turn back values will be covered by interview with the Evaluator.

The FMTs and Sample Screening Point will be demonstrated out of sequence at approximately 10:00 am on October 1.

Information from the FMTs will be provided to the SEOC Assessment Room via Controller injects during the Plume Pathway exercise on October 2.

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

Intent: Sub-element **3.b** 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).

Extent of Play

The Ohio Department of Health Bureau of Radiation Protection obtains KI via the U.S. NRC for members of the general public. This KI is then distributed to the County health

departments within the EPZ. County health departments make this KI available to the general public at reception centers during a nuclear emergency. The County health departments will maintain records of KI distributed at reception centers. (See the Lake, Ashtabula, and Geauga County Extent-of-Play Agreements for further details.)

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

Intent: Sub-element **3.c** 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: 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).

Extent of Play

N/A – The State of Ohio will not demonstrate this criterion. This is a County function. (See the Lake, Ashtabula, and Geauga County Extent-of-Play Agreements for further details.)

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

Extent of Play

N/A – The State of Ohio will not demonstrate this criterion. This is a County function. (See the Lake, Ashtabula, and Geauga County Extent-of-Play Agreements for further details.)

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

Intent: Sub-element **3.d** 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).

Extent of Play

The State EOC Dose Assessment Group in coordination with the SEOC Executive Group will procedurally demonstrate restricting air, water and rail traffic, and closure of State parklands (if applicable) within the EPZ. There are no pre-established TACPs for the 10-mile EPZ for which the State of Ohio is directly responsible. Requests for State resources (including but not limited to the OSHP and ODOT) to staff and operate TACPs is the responsibility of the Counties. (See the Lake, Ashtabula, and Geauga County Extent-of-Play Agreements for further details.)

Criterion 3.d.2: Impediments to evacuation are identified and resolved.

Extent of Play

N/A – The State of Ohio will not demonstrate this criterion. This is a County function. (See the Lake, Ashtabula, and Geauga County Extent-of-Play Agreements for further details.)

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

Intent: Sub-element **3.e** 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).

Extent of Play

The IZRRAG will demonstrate the capability to determine dose and sample activity via Controller-injected data based on simulated laboratory analysis of Ingestion Pathway samples and will demonstrate the capability to implement protective actions for the Ingestion Pathway. Current lists of farmers, food producers, distributors, and water supplies within the Ingestion Planning Zone (IPZ) will be used in making recommendations.

U.S. Department of Energy flyover data and other Federally provided data sources will also be used in developing protective action recommendations. Federal agencies will be present during the drill to advise the IZRRAG on federal capabilities.

There will be two Controllers for the Ingestion Phase demonstration. In addition to their normal duties, they will also facilitate the table top discussions in order to keep them focused and on track.

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).

Extent of Play

The IZRRAG will demonstrate the capability to implement protective actions for the Ingestion Pathway. Current lists of farmers, food producers, distributors, and water supplies within the IPZ will be used in making recommendations. The State will demonstrate the capability to make Ingestion Pathway information available to farmers, food processors and food distributors. The issuance of advisories and public information material will be simulated.

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

Intent: Sub-element **3.f** 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, *re-entry*, 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 of emergency workers and relocation and return of the public during the post-plume phase are coordinated with appropriate organizations and implemented. (NUREG-0654/FEMA-REP-1, E.7; J.10j; J.12; K.5.b; M.1, 3).

Extent of Play

Implementation of Re-entry will be demonstrated by the IZRRAG through tabletop discussions and coordination with County EMAs (simulated via a SIMCELL).

The IZRRAG will formulate recommended protective actions related to Re-entry, Relocation and Return of the public to restricted areas. These recommendations will be communicated to and coordinated with the Executive Room. Upon agreement of the PAR for Re-location, Re-entry, and Return of the public the state will demonstrate the capability to develop and implement actions required to allow for the controlled Re-entry of essential workers to the evacuated area and for Relocation and Return of the public. These actions will be coordinated with county agencies (simulated via a SIMCELL).

Exercise Controllers will draw the Participants' attention to jumps in time and provide injected information (e.g., maps, data, conditions) via briefings describing the scenario changes. The IZRRAG will be given an appropriate amount of time to review the injected information for each time jump and then as a group identify key issues, assign tasks to groups as needed, make appropriate decisions, identify key assumptions underlying their decisions, and describe the implementing actions that would be taken to address identified issues and decisions. The IZRRAG may make use of white boards, video displays and other means to facilitate the discussions.

EVALUATION AREA 4 – FIELD MEASUREMENT AND ANALYSIS

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

Intent: Sub-element **4.a** 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).

Extent of Play

During the Plume Phase, the release will be characterized by three State Field Monitoring Teams (FMTs) composed of Ohio EMA and Ohio Department of Health staff. (See the Lake, Ashtabula, and Geauga County Extent-of-Play Agreements for details concerning County FMTs.)

State FMT capabilities will be demonstrated out-of-sequence beginning at 10:00 AM on Monday October 1, 2012. Radiation readings will be provided to the FMTs using Teletrix "Virtual Plume" (formerly "Plume Tracker") plume simulation software.[1] The teams will receive information about predicted plume location and direction, travel speed, and exposure control procedures by controller-injected messages to the State FMT Coordinator.

The State FMTs will be managed by the Field Monitoring Team (FMT) Coordinator from the Lake County EOC. The FMT Coordinator will coordinate the three State FMTs on Monday October 1, 2012. The State FMT Coordinator will coordinate field team activities with the Lake County FMT Coordinator on Tuesday October 2, 2012. The

Sample Screening Point will support the Plume Phase FMT demonstration On October 1, 2012 and Ingestion Pathway FST activities on Tuesday October 2, 2012.

Controllers will provide FMT radiation readings to the SEOC Assessment Room during the SEOC Plume Phase demonstration on Tuesday October 2, 2012.

Field Monitoring Team air samples collected on Monday October 1, 2012, will be dropped-off at the Lake County EOC and screened by Sample Screening Point personnel.

Chain-of-Custody will be demonstrated by the FMTs through the use of forms they will fill out and pass on to the Sample Screening Point when Plume Phase air samples and Ingestion Phase media samples are submitted for screening. FMT and Sample Screening personnel may simulate the use of PPE at the discretion of the controller in consultation with the Evaluator.

There will be no Federal play for this criterion in the Plume Phase of the exercise.

In the Post -Plume Phase, characterization will be achieved by three Field Sampling Teams (FSTs). There will be at least one team from each of the following agencies:

- Ohio EPA
- Ohio Department of Natural Resources
- Ohio Department of Agriculture

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).

Extent of Play

Measurements will be made out of sequence on Monday October 1, 2012, by State Field Monitoring Teams (FMTs) in accordance with their SOPs. Three FMTs will demonstrate ambient radiation monitoring, radioiodine and particulate sampling between approximately 10:00 AM and 2:00 PM. The FMTs will be equipped with appropriate

dosimetry and KI. The FMT Coordinator will direct each team from the Lake County EOC. FMTs will perform radiation measurements and collect air samples.

Readings will be reported to the State FMT Coordinator and samples will be taken to the Sample Screening Point at the Lake County EOC.

Silver zeolite cartridges marked "FTO" (For Training Only) will be used to take air samples. Evaluators will meet the FMTs at the Lake County EOC at 10:00 AM on Monday October 1. Controllers will provide FMT radiation readings to the State Dose Assessment Room in Columbus during the Plume Phase demonstration.

State FMT personnel may simulate the use of PPE at the discretion of the Controller in consultation with the Evaluator.

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

Intent: Sub-element **4.b** 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).

Extent of Play

The Field Team Center (FTC) and field sampling activities for the Ingestion Phase Reentry/Relocation/Return/Recovery table top exercise will be demonstrated out of sequence on Tuesday October 2, 2012, beginning at 8:00 AM. The FTC play will be conducted out of sequence from the Reentry/Relocation/Return/Recovery table top exercise that will take place at the SEOC on Wednesday October 3, 2012. The FTC will be located at the Lake County General Health District in Painesville, Ohio.

An exercise Controller will inject the requests for field samples that would normally originate from the IZRRAG. The Field sampling Team (FST) Coordinator will coordinate three State FSTs to fulfill the sample requests. Federal sampling activity will be simulated.

Field sampling teams responsible for collecting Post-Plume Phase samples will be prepositioned at the FTC. Upon receipt of requests for samples, FSTs will be dispatched to locations within the Ingestion EPZ to collect the samples. Meat, water, soil, milk, vegetation, and fish samples will be collected. Samples may be simulated and not actually collected from the environment if unavailable due to seasonal or other restrictions, in which case the FST members will describe to the Evaluator via interview how the samples would be collected and processed.

Field Sampling Teams and Sample Screening may simulate the use of PPE at the discretion of the Controller in consultation with the Evaluator.

Samples will be taken to the Sample Screening Point (located at the FTC) but will not be transported to the Lab in Columbus. Laboratory operations will be demonstrated separately on Wednesday October 3, 2012.

Sub-element 4.c – Laboratory Operations.

Intent: Sub-element **4.c** 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).

Extent of Play

Laboratory operations will be demonstrated separately on Wednesday October 3 between 8:00 AM and Noon at the Ohio Department of Health (ODH) Laboratory located in Reynoldsville, Ohio. Meat, water, soil, milk, vegetation, and fish samples (or simulants) will be analyzed in accordance with SOPs. Sample information consistent with IZRRAG sample requests and FST assignments will be Controller-injected. Analysis of samples

will be simulated. Laboratory evaluation will be conducted by interview of laboratory personnel, review of laboratory practices and procedures and inspection of laboratory equipment, facilities and records.

EVALUATION AREA 5 – EMERGENCY NOTIFICATION AND PUBLIC INFORMATION

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

Intent: Sub-element **5.a** 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).

1. Identification of the state or local government organization and the official with the authority for providing the alert signal and instructional message
2. Identification of the commercial nuclear power plant and a statement that an emergency situation exists at the plant
3. Reference to REP-specific emergency information (e.g., brochures and information in telephone books) for use by the general public during an emergency
4. A closing statement asking the affected and potentially affected population to stay tuned for additional information.

Extent of Play

The Executive Director in the State Executive Room will consult with the County EOCs to determine the best immediate protective action(s) for the populace. Once a decision is reached that requires activation of the Public Alert and Notification System, Lake County in coordination with Ashtabula and Geauga Counties will simulate the activation of sirens and providing Emergency Alert System (EAS) and Special New Bulletin (SNB) messages, as appropriate, to the EAS Stations. (See the Lake, Ashtabula, and Geauga

counties Extent-of-Play Agreements for further details.)

The State also notifies the public on Lake Erie (within the 10-mile EPZ) through the U.S. Coast Guard, as supported by Ohio Department of Natural Resources (ODNR). An out of sequence interview will be conducted with ODNR at 10:00 AM on Monday October 1, 2012, at the Ashtabula Division of Watercraft offices in Ashtabula, Ohio.

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).

Extent of Play

N/A – The State of Ohio will not demonstrate this criterion. This is a County function. (See the Lake, Ashtabula, and Geauga County Extent-of-Play Agreements for further details.)

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

Extent of Play

N/A – The State of Ohio will not demonstrate this criterion. The State of Ohio has no FEMA approved Exception Areas at this time. (See the Lake, Ashtabula, and Geauga County Extent-of-Play Agreements for further details.)

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

Intent: Sub-element **5.b** 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).

Extent of Play

The Ohio EMA PIO and a representative from ODH will be present at the PNPP JIC (located at Lakeland Community College in Kirtland, Ohio) to address protective actions being implemented and the activities taking place at the State level. Public information representatives from Ohio EMA also will be present in the SEOC (State JIC) to communicate with the PNPP JIC.

A Public Inquiry Hotline telephone will be established and demonstrated in the SEOC (State JIC). Public Inquiry will address an average of 3 calls per hour for a duration of two hours once the Site Area Emergency ECL is declared. Trends in rumors will be identified and responded to as needed. Public Inquiry will be driven by Controller injects.

EVALUATION AREA 6 – SUPPORT OPERATION/FACILITIES

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

Intent: Sub-element **6.a** 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).

Extent of Play

N/A – The State of Ohio will not demonstrate this criterion. This is a County function.

(See the Lake, Ashtabula, and Geauga County Extent-of-Play Agreements for further details.)

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

Intent: Sub-element **6.b** 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).

Extent of Play

N/A – The State of Ohio will not demonstrate this criterion. This is a County function. (See the Lake, Ashtabula, and Geauga County Extent-of-Play Agreements for further details.)

Sub-element 6.c – Temporary Care of Evacuees.

Intent: Sub-element **6.c** 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.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).

Extent of Play

N/A – The State of Ohio will not demonstrate this criterion. This is a County function. (See the Lake, Ashtabula, and Geauga County Extent-of-Play Agreements for further details.)

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

Intent: Sub-element **6.d** 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).

Extent of Play

N/A – The State of Ohio will not demonstrate this criterion. This is a County function. (See the Lake, Ashtabula, and Geauga County Extent-of-Play Agreements for further details.)

Unclassified
Radiological Emergency Preparedness Program (REP)
After Action Report/Improvement Plan Perry Nuclear Power Plant

RADIOLOGICAL EMERGENCY PREPAREDNESS FULL PARTICIPATION EXERCISE

PERRY NUCLEAR POWER PLANT

October 2, 2012

EXTENT OF PLAY AGREEMENT:

LAKE COUNTY, OHIO

The EOC portion of the exercise will take place on October 2, 2012.

Criteria that can be re-demonstrated immediately for credit, by a decision of the evaluator, include the following: 3.a.1, 3.d.1, 3.d.2, 6.a.1, 6.b.1, 6.c.1, and 6.d.1. Criteria that may be re-demonstrated, as approved on a case-by-case basis by the Chairman of the Radiological Preparedness Coordinating Committee, include the following: 2.a.1, 2.b.1, 2.b.2, 5.a.1, and 5.b.1.

EVALUATION AREA 1 – EMERGENCY OPERATIONS MANAGEMENT

Sub-element 1.a – Mobilization

Intent: Sub-element **1.a** 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)

Extent of Play

Lake County EOC Staff will mobilize upon notification from the Lake County Sheriff's Central Communications Dispatch Center, which is the 24-hour notification point and receives the call via a dedicated line from the Perry Plant. Full field notification utilizing primary means of communication will be completed one time only from the EOC, at the Site Area Emergency classification.

Field agency demonstrations will be conducted out-of-sequence and participants will be pre-positioned.

Field Activity Participants

- **Fairport Fire Department – Back-up Route Alerting.**
- Willoughby Fire Department – Public Monitoring & Decontamination at South High School Care Center.

- **Painesville City School District – Risk School**
- **Riverside School District – Risk School**
- **Mentor Fire Department – Emergency Worker Monitoring/Decontamination.**
- **Lake County General Health District – KI for the General Public and Field** Monitoring Teams.
- **Lake West Medical Center – Medical Services (MS-1)**
- Lake County Sheriff's Office – Traffic/Access Control by interview at the Sheriff's Office.
- Ohio State Highway Patrol Post #28 – Traffic/Access Control by interview at the Geauga EOC (Post #28 covers both Lake and Geauga counties).
- **Perry Joint Fire District – MS-1 Transportation.**
- **American Red Cross.**

Sub-element 1.b – Facilities

Intent: Sub-element **1.b** is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have facilities to support the emergency response.

Criterion 1.b.1: Facilities are sufficient to support the emergency response. (NUREG0654/FEMA-REP-1, H.3; G.3.a; J.10.h; J.12; K.5.b)

Extent of Play

NA – Lake County will not demonstrate this criterion. The baseline exercise for demonstration of this criterion was conducted in April 2002. **The availability of facilities to support emergency operations will be shown** (but not evaluated) **at the Lake County Emergency Operations Center (EOC). Back-up power will not be demonstrated.**

Sub-element 1.c – Direction and Control

Intent: Sub-element **1.c** 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)

Extent of Play

Direction and control of emergency operations will be demonstrated in accordance with the exercise scenario, the Lake County Radiological Emergency Response Plan, Agency SOG and as appropriate for out-of-sequence field demonstrations.

Sub-element 1.d – Communications Equipment

Intent: Sub-element **1.d** 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)

Extent of Play

Primary (dedicated phone lines and commercial telephone) and secondary (radio/pagers/cell phones) means of communications will be demonstrated at the EOC and as appropriate for out-of-sequence field demonstrations. Controllers will drive field play.

Full field notification utilizing primary means of communication will be completed one time only from the EOC, at the Site Area Emergency classification.

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

Intent: Sub-element **1.e** 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)

Extent of Play

The EOC will demonstrate the use of equipment, maps and displays to support emergency operations.

In addition to the KI that the local health department made available to the general public to pick up in 2010, there is a quantity stockpiled at the EOC that would be transported to the care centers and distributed by the local health department, as requested.

EVALUATION AREA 2 – PROTECTIVE ACTION DECISION MAKING

Sub-element 2.a – Emergency Worker Exposure Control

Intent: Sub-element **2.a** 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.4)

Extent of Play

Lake County relies on the Ohio Department of Health (ODH) for the recommendation to take KI. For out-of-sequence field agency demonstrations, this will be demonstrated by interview with exercise participants or by controller inject, if necessary.

The use of a Controller inject will begin the process of authorization for radiation exposures in excess of administrative limits.

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

Intent: Sub-element **2.b** 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).

Extent of Play

N/A – Lake County does not demonstrate this criterion; it relies on the State of Ohio.

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

Extent of Play

The Lake County EOC Executive Group will demonstrate this criterion in coordination with Geauga and Ashtabula counties' Executive Groups and the State of Ohio.

The Director, or designee, of the Ohio Department of Health (ODH) makes the decision for the general public and emergency workers to take KI. The ODH through the local health department makes KI available to the general public, by pre-distribution and by supplies available for distribution at the time of the emergency at care centers.

Sub-element 2.c – PAD Consideration for the Protection of Persons with Disabilities and Access/Functional Needs

Intent: Sub-element **2.c** is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to determine PADs, 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)

Extent of Play

The Lake County EOC Executive Group will demonstrate this criterion in coordination with Geauga and Ashtabula counties' Executive Groups. Typically, schools relocate at Site Area Emergency per procedures. If not relocated prior to General Emergency, schools follow the protective action decisions for the general public; they are not considered a special population group.

Special Needs facilities (jails, hospitals, nursing homes, etc.) will be notified by EOC Personnel and advised of the emergency actions they should take.

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

Intent: Sub-element **2.d** 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).

Extent of Play

N/A – Lake County relies on the State of Ohio.

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

Intent: Sub-element **2.e** 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 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).

Extent of Play

N/A – This Criterion was successfully demonstrated in 2008.

EVALUATION AREA 3 – PROTECTIVE ACTION IMPLEMENTATION

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

Intent: Sub-element **3.a** 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).

Extent of Play

The Lake County EOC Radiological Officer will demonstrate radiation exposure control capabilities. Dosimetry and exposure control procedures will be demonstrated

by field agencies during out-of-sequence exercise activities.

For field agency demonstrations, KI procedures will be demonstrated by interview with exercise participants or by controller inject, if necessary.

Field Activity Participants:

Dosimetry Briefing:

- **Fairport Fire Department – Back-Up Route Alerting**
- **Willoughby Fire Department – Public Monitoring/Decontamination at care center**
- **Perry Joint Fire District – MS-1 Transportation**
- **Painesville City School District – Interview of Transportation Supervisor & bus operator only**
- **Riverside School District – Interview of Transportation Supervisor & bus operator only**
- **Lake West Medical Center – MS-1**

Interview & Dosimetry Briefing:

- **Ohio State Highway Patrol Post #28 – at the Geauga EOC during the Exercise**
- **Lake County Sheriff's Office – at the Sheriff's Office**

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

Intent: Sub-element **3.b** 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).

Extent of Play

The Ohio Department of Health (ODH) will make recommendations regarding the use of KI. Lake County's preparedness measures for KI include pre-distribution to the institutionalized and the general public, if they chose to pick it up.

Demonstration of this criterion may be facilitated by discussion with the Lake County General Health District Coordinator at the EOC.

Interview the EOC Lake County General Health District (LCGHD) representative during the exercise regarding the distribution of KI for the public at the care center.

Criterion 3.c.1: Protective action decisions are implemented for persons with disabilities and access/functional needs other than schools within areas subject to protective actions.

Extent of Play

Notification to individuals with special needs within the Lake County portion of the EPZ will be simulated. A list of special needs residents within the Lake County portion of the EPZ is maintained by the Lake County Department of Job and Family Services and the Lake County EMA.

The Department of Job and Family Services Coordinator at the EOC will coordinate special needs notification activities and, upon request, will present the confidential list for review by the FEMA evaluator. At least 4 transportation providers, which in Lake County include school districts, will be contacted to ensure availability of buses and drivers.

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

Intent: Sub-element **3.c** 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: 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).

Extent of Play

The school districts will demonstrate this criterion out-of-sequence, by interview with the superintendent, high school principal, transportation supervisor and a bus operator. School officials follow the protective **action decisions made by the elected officials for the general public, if the school districts' superintendents have not made the decision to relocate prior to a General Emergency.**

The use of dosimetry and KI will be discussed with transportation personnel only. If the school district has elected to have KI available for students, it is an internal policy and will be discussed during the interview.

During the Exercise all schools in the EPZ will be notified as identified in Criterion 1.a.1 Extent of Play. The EOC County School Services Representative will follow their Suggested Operating Guideline (SOG) during the Exercise.

There will be no movement of buses or students.

Field Activity Participants

- Riverside School District

- Painesville City School District

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

Intent: Sub-element **3.d** 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).

Extent of Play

The Ohio State Highway Patrol (OSHP) Post #28 (which covers both Lake and Geauga counties) will demonstrate Traffic/Access Control at the Geauga EOC.

The Lake County Sheriff's Office will demonstrate Traffic and Access Control by interview at the Sheriff's Office.

Notification of rail, water and air traffic is a State function.

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

Extent of Play

Lake County EOC will demonstrate the capability to identify and take the appropriate actions in dealing with impediments to evacuation. Actual resources will not be utilized. If an impediment cannot be removed in a timely manner, the decision to reroute traffic will be discussed and implemented by the appropriate EOC Staff.

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

Intent: Sub-element **3.e** 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).

Extent of Play

N/A – Lake County relies on the State of Ohio.

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).

Extent of Play

N/A – Lake County relies on the State of Ohio.

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

Intent: Sub-element **3.f** 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*, *re-entry*, 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 of emergency workers and relocation and return of the public during the post-plume phase are coordinated with appropriate organizations and implemented. (NUREG-0654/FEMA-REP-1, E.7; J.10j; J.12; K.5.b; M.1, 3).

Extent of Play

N/A – This Criterion was successfully demonstrated in 2008.

EVALUATION AREA 4 – FIELD MEASUREMENT AND ANALYSIS

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

Intent: Sub-element **4.a** 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).

Extent of Play

Lake County Health District will demonstrate the use of two Field Monitoring Teams (FMTs), in sequence.

Lake County FMT data is utilized for validation purposes and is not used to generate PARs.

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).

Extent of Play

For the exercise, expired silver zeolite cartridges will be used; new cartridges will be available for the FEMA evaluator's observation.

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

Intent: Sub-element **4.b** 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).

Extent of Play

N/A – Lake County relies on the State of Ohio

Sub-element 4.c – Laboratory Operations.

Intent: Sub-element **4.c** 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).

Extent of Play

N/A – Lake County relies on the State of Ohio

EVALUATION AREA 5 – EMERGENCY NOTIFICATION AND PUBLIC INFORMATION

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

Intent: Sub-element **5.a** 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).

Extent of Play

Upon a protective action decision (PAD) by the combined Executive Groups of Ashtabula, Geauga and Lake counties, the Lake County EOC Staff will prepare the appropriate Emergency Alert System (EAS) message and simulate sounding the sirens and sending the message over the EAS system. A quiet siren test will be demonstrated by the Lake County EOC in lieu of an actual siren sounding.

Simulation of sending the EAS message(s) will be conducted as follows:

The procedure for the EAS encoder will be followed to deliver the message to WTAM, the Local Primary Station, with the exception that the telephone number to the

station will not be dialed. By not connecting to WTAM, there is no possibility of accidentally broadcasting the message over one or more of the participating EAS stations.

The "send" button on the Lake County EAS encoder will be depressed and this action will activate the outgoing alert light and playback of the recorded message. Also, a data sheet will automatically be printed by the encoder and the time recorded on the data sheet. Ashtabula and Geauga counties have EAS equipment (encoder) and could perform this function, if necessary.

Lake County will fax a copy of the EAS message(s) to the Joint Information Center (JIC) where Public Information Officers (PIOs) may distribute hard copies to the news media representatives and may, if time and circumstances permit, make an announcement regarding the message. Otherwise, the EAS message can be announced at the next scheduled press briefing or in response to news media inquiries about the FAD message. In delivering information about the EAS message just released, the counties' PIOs may indicate that a corresponding Special News Bulletin (SNB) will be issued soon. Lake County will also fax a copy of the EAS message to Ashtabula and Geauga counties' EOCs.

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).

Extent of Play

The Fairport Fire Department will demonstrate back-up route alerting as an out-of-sequence, prepositioned field activity. One predetermined siren located in the fire department's jurisdiction will be out of service (simulated) and back-up route alerting will be conducted in the siren coverage area. Use of the mobile PA system will be simulated during the demonstration; an audible PA test will be conducted prior to departure. The demonstration will be initiated by the exercise controller.

Field Activity Participants

- Fairport Fire Department.

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

Extent of Play

N/A – There are no exception areas in the PNPP Siren System.

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

Intent: Sub-element **5.b** 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).

Extent of Play

Based upon the combined PAD(s) of the Executive Groups of Ashtabula, Geauga and Lake counties, the Lake County EOC Staff will prepare and issue the appropriate EAS message(s) and the corresponding Special News Bulletin(s) (SNB). SNB's give the same message as their corresponding EAS message except SNB's provide greater detail. Lake County will FAX the SNB(s) to the Joint Information Center (JIC) where one of the counties' PIOs will represent the three counties by directly proceeding to the briefing room and reading the contents of the message to the assembly of news media representatives and answering any questions pertaining to the message. This briefing

should begin in a timely manner after transmission of the EAS message from the Lake County EOC to the Local Primary EAS Station. Hard copies of the SNB(s) will be distributed to the news media representatives.

Ashtabula, Lake and Geauga counties will also coordinate release of other informational and instructional message as necessary. Such messages may include Special Information Bulletins (SIB), which are a third category of prepared messages contained in the counties' "SOG for EAS Messages, Special News Bulletins, and Special Information Bulletins pertaining to the Perry Nuclear Power Plant." These SIB's are considered routine, meaning that they are to be delivered by one of the counties' PIOs at the next scheduled press briefing.

Public Inquiry Workers at the EOC will answer calls from the public. At least one trend will be demonstrated.

EVALUATION AREA 6 – SUPPORT OPERATION/FACILITIES

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

Intent: Sub-element **6.a** 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).

Extent of Play

Willoughby Fire Department will demonstrate the evacuee portion of this criterion out-of-sequence at South High School. One locker room will be fully set up and demonstrated; a walk-through of the remaining locker room will be conducted upon request.

Six (6) monitoring demonstrations will be conducted using a portal monitor. One

individual with simulated contamination will be walked through the monitoring/decontamination process, which includes whole body monitoring using a survey meter; contamination levels will be provided by a controller. Decontamination will be simulated.

Monitoring of evacuees will be demonstrated to determine contamination status. Decontamination will not require actual wash-down – the decontamination portion of the demonstration may be conducted by interview and discussion with the Evaluator.

The use of craft paper is optional for the exercise.

Field Activity Participants

- Willoughby Fire Department – Public M/D

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

Intent: Sub-element **6.b** 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).

Extent of Play

Mentor Fire Department will demonstrate the emergency worker facility out-of-sequence at Mentor School District's Conditioning Center, Mentor. Two monitoring demonstrations will be conducted using a portal monitor. One individual with simulated contamination will be walked through the monitoring and decontamination process, which includes whole body monitoring using a survey meter; contamination levels will be provided by a controller. Decontamination will be simulated.

At least one emergency worker vehicle will be monitored and determined to require decontamination. Decontamination will not require actual wash-down – the decontamination

portion of the demonstration may be conducted by interview and discussion with the Evaluator.

Field Activity Participants

- Mentor Fire Department

Sub-element 6.c – Temporary Care of Evacuees.

Intent: Sub-element **6.c** 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.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).

Extent of Play

The American Red Cross will demonstrate the congregate care center portion of this criterion out-of-sequence at South High School, 5000 Shankland Road, Willoughby. American Red Cross personnel will provide a walk-through of the facility and describe their capabilities. Set-up of care center equipment or supplies will be at the discretion of the American Red Cross.

Field Activity Participants

- American Red Cross

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

Intent: Sub-element **6.d** 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).

Extent of Play

Perry Joint Fire District will demonstrate this criterion in sequence with the on-site scenario. A simulated contaminated/injured victim from the Perry Power Plant will be transported to Lake West Medical Center. No emergency lights and/or sirens will be used.

Dosimetry (CDV-138s) and survey instruments owned by the State of Ohio may be used in addition to that issued by the State of Ohio and the Utility.

RADIOLOGICAL EMERGENCY PREPAREDNESS FULL PARTICIPATION EXERCISE

PERRY NUCLEAR POWER PLANT

October 2, 2012

EXTENT OF PLAY AGREEMENT:

GEAUGA COUNTY, OHIO

The EOC portion of the exercise will take place on October 2, 2012.

Criteria that can be re-demonstrated immediately for credit, by a decision of the evaluator, include the following: 3.a.1, 3.d.1, 3.d.2, 6.a.1, 6.b.1, 6.c.1 and 6.d.1. Criteria that may be re-demonstrated, as approved on a case-by-case basis by the Chairman of the Radiological Preparedness Coordinating Committee, include the following: 2.a.1, 2.b.1, 2.b.2, 5.a.1 and 5.b.1.

EVALUATION AREA 1 – EMERGENCY OPERATIONS MANAGEMENT

Sub-element 1.a – Mobilization

Intent: Sub-element **1.a** 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)

Extent of Play

Geauga County EOC Staff will mobilize upon notification from the Geauga County Sheriff's Dispatch Center, which is the 24-hour notification point and receives the call via a dedicated line from the Perry Plant. Full field notification utilizing primary means of communication will be completed one time only from the EOC, at the Site Area Emergency classification.

Field agency demonstrations will be conducted out-of-sequence and participants will be pre-positioned.

Field Activity Participants

- Munson Fire Department – Public Monitoring & Decontamination at Notre Dame Cathedral Latin High School Care Center
- Munson Fire Department – MS-1 Transportation at Notre Dame Cathedral Latin High School Care Center
- Traffic/Access Control at the EOC during the Exercise

- Ohio State Highway Patrol
- American Red Cross
- Animal Community Emergency Response Team (ACERT) – Activities will be demonstrated but will not be evaluated

Sub-element 1.b – Facilities

Intent: Sub-element **1.b** is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have facilities to support the emergency response.

Criterion 1.b.1: Facilities are sufficient to support the emergency response. (NUREG0654/FEMA-REP-1, H.3; G.3.a; J.10.h; J.12; K.5.b)

Extent of Play

NA – Lake County will not demonstrate this criterion. The baseline exercise for demonstration of this criterion was conducted in April 2002. The availability of facilities to support emergency operations will be shown (but not evaluated) at the Geauga County Emergency Operations Center (EOC). Back-up power will not be demonstrated.

Sub-element 1.c – Direction and Control

Intent: Sub-element **1.c** 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)

Extent of Play

Direction and control of emergency operations will be demonstrated in accordance with the exercise scenario, the Geauga County Radiological Emergency Response Plan, Agency SOG and as appropriate for out-of-sequence field demonstrations.

Sub-element 1.d – Communications Equipment

Intent: Sub-element **1.d** 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)

Extent of Play

Primary (dedicated phone lines and commercial telephone) and secondary (radio/pagers/cell phones) means of communications will be demonstrated at the EOC and as appropriate for out-of-sequence field demonstrations. Controllers will drive field play.

Full field notification utilizing primary means of communication will be completed one time only from the EOC, at the Site Area Emergency classification.

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

Intent: Sub-element **1.e** 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)

Extent of Play

The EOC will demonstrate the use of equipment, maps and displays to support

emergency operations.

In addition to the KI that the local health department made available to the general public to pick up in 2010, there is a quantity stockpiled at the Health District that would be transported to the care centers and distributed by the local health department, as requested.

EVALUATION AREA 2 – PROTECTIVE ACTION DECISION MAKING

Sub-element 2.a – Emergency Worker Exposure Control

Intent: Sub-element **2.a** 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.4)

Extent of Play

Geauga County relies on the Ohio Department of Health (ODH) for the recommendation to take KI. For out-of-sequence field agency demonstrations, this will be demonstrated by interview with exercise participants or by controller inject, if necessary.

The use of a Controller inject will begin the process of authorization for radiation exposures in excess of administrative

limits.

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

Intent: Sub-element **2.b** 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).

Extent of Play

N/A – Geauga County does not demonstrate this criterion; it relies on the State of Ohio for field monitoring.

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

Extent of Play

The Geauga County EOC Executive Group will demonstrate this criterion in coordination with Lake and Ashtabula counties' Executive Groups and the State of Ohio.

The Director, or designee, of the Ohio Department of Health (ODH) makes the decision for the general public and emergency workers to take KI. The ODH through the local health department makes KI available to the general public, by pre-distribution and by supplies available for distribution at the time of the emergency at care centers.

Sub-element 2.c – PAD Consideration for the Protection of Persons with Disabilities and Access/Functional Needs

Intent: Sub-element **2.c** is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to determine PADs, 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)

Extent of Play

The Geauga County EOC Executive Group will demonstrate this criterion in coordination with Lake and Ashtabula counties' Executive Groups. Typically, schools relocate at Site Area Emergency per procedures. If not relocated prior to General Emergency, schools follow the protective action decisions for the general public; they are not considered a special population group.

Special Needs facilities (jails, hospitals, nursing homes, etc.) will be notified by EOC Personnel and advised of the emergency actions they should take.

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

Intent: Sub-element **2.d** 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).

Extent of Play

N/A – Geauga County relies on the State of Ohio.

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

Intent: Sub-element **2.e** 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 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).

Extent of Play

N/A – This Criterion was demonstrated in 2008.

EVALUATION AREA 3 – PROTECTIVE ACTION IMPLEMENTATION

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

Intent: Sub-element **3.a** 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).

Extent of Play

The Geauga County EOC Radiological Officer will demonstrate radiation exposure control capabilities. Dosimetry and exposure control procedures will be demonstrated by field agencies during out-of-sequence exercise activities.

For field agency demonstrations, KI procedures will be demonstrated by **interview with exercise participants or by controller inject, if necessary.**

Field Activity Participants:

Dosimetry briefing:

- **Munson Fire Department**
- **PIO – Prior to leaving for the JIC**

Interview and Dosimetry Briefing:

- Ohio State Highway Patrol Post #28 (Post #28 covers both Geauga & Lake counties) – at the EOC during the Exercise

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

Intent: Sub-element **3.b** 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).

Extent of Play

The Ohio Department of Health (ODH) will make recommendations regarding the use of KI. Geauga County's preparedness measures for KI include pre-distribution to the institutionalized and the general public, if they chose to pick it up.

If the ODH recommendation for use of KI excludes the portion of the EPZ that is in Geauga County, demonstration of this criterion may be facilitated by discussion with the Geauga County Radiological Officer at the EOC.

Interview the Geauga County Health District representative at the EOC during the exercise regarding the distribution of KI for the public at the care center.

Criterion 3.c.1: Protective action decisions are implemented for persons with

disabilities and access/functional needs other than schools within areas subject to protective actions. (NUREG-0654/FEMA-REP-1, J.10.c, d, e, g).

Extent of Play

Notification to individuals with special needs within the Geauga County portion of the EPZ will be simulated. A list of special needs residents within the Geauga County portion of the EPZ is maintained by the Geauga County Department of Emergency Services (DES). The Fire/EMS Coordinator at the EOC will coordinate special needs notification activities and, upon request, will present the confidential list for review by the FEMA evaluator. At least 2 transportation providers, which in Geauga County include school districts, will be contacted to ensure availability of buses and drivers.

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

Extent of Play

N/A – This Criterion was demonstrated in 2010 by Ledgemont School District, the only school district in Geauga County that is within the EPZ.

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

Intent: Sub-element **3.d** 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).

Extent of Play

The Ohio State Highway Patrol Post #28 (Post #28 covers both Lake and Geauga counties) will demonstrate Traffic and Access Control by interview at the Geauga County EOC during the exercise.

Notification of rail, water and air traffic is a State function.

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

Extent of Play

Geauga County EOC will demonstrate the capability to identify and take the appropriate actions in dealing with impediments to evacuation. Actual resources will not be utilized. If an impediment cannot be removed in a timely manner, the decision to reroute traffic will be discussed and implemented by the appropriate EOC staff.

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

Intent: Sub-element **3.e** 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).

Extent of Play

N/A – Geauga County relies on the State of Ohio.

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).

Extent of Play

N/A – Geauga County relies on the State of Ohio.

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

Intent: Sub-element **3.f** 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*, *re-entry*, 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 of emergency workers and relocation and return of the public during the post-plume phase are coordinated with appropriate organizations and implemented. (NUREG-0654/FEMA-REP-1, E.7; J.10j; J.12; K.5.b; M.1, 3).

Extent of Play

N/A – This Criterion was successfully demonstrated in 2008.

EVALUATION AREA 4 – FIELD MEASUREMENT AND ANALYSIS

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

Intent: Sub-element **4.a** 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).

Extent of Play

N/A – Geauga County does not demonstrate this 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).

Extent of Play

N/A – Geauga County does not demonstrate this criterion.

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

Intent: Sub-element **4.b** 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).

Extent of Play

N/A – Geauga County does not demonstrate this criterion.

Sub-element 4.c – Laboratory Operations.

Intent: Sub-element **4.c** 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).

Extent of Play

N/A – Geauga County does not demonstrate this criterion,

EVALUATION AREA 5 – EMERGENCY NOTIFICATION AND PUBLIC INFORMATION

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

Intent: Sub-element **5.a** 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).

Extent of Play

Upon a protective action decision (PAD) by the combined Executive Groups of

Ashtabula, Lake and Geauga counties, the Lake County EOC Staff will prepare the appropriate Emergency Alert System (EAS) message and simulate sounding the sirens and sending the message over the EAS system. A quiet siren test will be demonstrated by the Lake County EOC in lieu of an actual siren sounding.

Simulation of sending the EAS message(s) will be conducted as follows: The procedure for the EAS encoder will be followed to deliver the message to WTAM, the Local Primary Station, with the exception that the telephone number to the station will not be dialed. By not connecting to WTAM, there is no possibility of accidentally broadcasting the message over one or more of the participating EAS stations.

The "send" button on the Lake County EAS encoder will be depressed, and this action will activate the outgoing alert light and playback of the recorded message. Also, a data sheet will automatically be printed by the encoder and the time recorded on the data sheet. Ashtabula and Geauga counties have EAS equipment (encoder) and could perform this function, if necessary.

Lake County will fax a copy of the EAS message(s) to the Joint Information Center (JIC) where Public Information Officers (PIOs) may distribute hard copies to the news media representatives and may, if time and circumstances permit, make an announcement regarding the message. Otherwise, the EAS message can be announced at the next scheduled press briefing or in response to news media inquiries about the PAD message. In delivering information about the EAS message just released, the counties' PIOs may indicate that a corresponding Special News Bulletin (SNB) will be issued soon. Lake County will also fax a copy of the EAS message to Ashtabula and Geauga counties' EOCs.

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).

Extent of Play

N/A – The Thompson Volunteer Fire Department, the only Geauga County department with this responsibility, successfully demonstrated back-up route alerting during the 2010 Evaluated Exercise.

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

Extent of Play

N/A – There are no exception areas in the PNPP Siren System.

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

Intent: Sub-element **5.b** 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).

Extent of Play

Based upon the combined PAD(s) of the Executive Groups of Ashtabula, Geauga and Lake counties, the Lake County EOC Staff will prepare and issue the appropriate EAS message(s) and the corresponding Special News Bulletin(s) (SNB). SNB's give the same

message as their corresponding EAS message except SNB's provide greater detail. Lake County will FAX the SNB(s) to the Joint Information Center (JIC) where one of the counties' PIOs will represent the three counties by directly proceeding to the briefing room and reading the contents of the message to the assembly of news media representatives and answering any questions pertaining to the message. This briefing should begin in a timely manner after transmission of the EAS message from the Lake County EOC to the Local Primary EAS Station. Hard copies of the SNB(s) will be distributed to the news media representatives.

Ashtabula, Geauga and Lake counties will also coordinate release of other informational and instructional message as necessary. Such messages may include Special Information Bulletins (SIB), which are a third category of prepared messages contained in the counties' "SOG for EAS Messages, Special News Bulletins, and Special Information Bulletins pertaining to the Perry Nuclear Power Plant." These SIB's are considered routine, meaning that they are to be delivered by one of the counties' PIOs at the next scheduled press briefing.

Public Inquiry Workers at the EOC will answer calls from the public. At least one trend will be demonstrated.

EVALUATION AREA 6 – SUPPORT OPERATION/FACILITIES

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

Intent: Sub-element **6.a** 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).

Extent of Play

Munson Fire Department will demonstrate the evacuee portion of this criterion out-of-sequence at Notre Dame Cathedral Latin School, 13000 Auburn Road, Munson Township. One locker room will be fully set up and demonstrated. A walk-through of the remaining locker room will be conducted upon request

Six (6) monitoring demonstrations will be conducted using a portal monitor. One individual with simulated contamination will be walked through the monitoring/decontamination process, which includes whole body monitoring using a survey meter; contamination levels will be provided by a controller. Decontamination will be simulated.

This facility could accommodate use of four (4) portal monitors, if the need arises. For this demonstration, one (1) portal will be set up and used. The fire department's procedure includes a diagram and procedure for adding the other three portals, as necessary.

The use of craft paper is optional for the exercise.

At least one evacuee vehicle will be monitored and determined to require decontamination. Decontamination will not require actual wash-down – the decontamination portion of the demonstration may be conducted by interview and discussion with the Evaluator.

Field Activity Participants

- Munson Fire Department
- Animal Community Emergency Response Team (ACERT) – Activities will be demonstrated, but will not be evaluated.

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

Intent: Sub-element **6.b** 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).

Extent of Play

N/A – The Chardon Fire Department successfully demonstrated this criterion at Chardon High School during the 2008 Evaluated Exercise.

Sub-element 6.c – Temporary Care of Evacuees.

Intent: Sub-element **6.c** 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.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).

Extent of Play

The American Red Cross will demonstrate the congregate care center portion of this criterion out-of-sequence at Notre Dame Cathedral Latin School, 13000 Auburn Road, Munson Township. American Red Cross personnel will provide a walk-through of the facility and describe their capabilities. Set-up of care center equipment or supplies will be at the discretion of the American Red Cross Disaster Action Team Leader.

Field Activity Participants

- **American Red Cross**
- **Animal Community Emergency Response Team (ACERT) – Activities will be demonstrated, but will not be evaluated.**

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

Intent: Sub-element **6.d** 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).

Extent of Play

This criterion will be demonstrated in 2014.

RADIOLOGICAL EMERGENCY PREPAREDNESS FULL PARTICIPATION EXERCISE

PERRY NUCLEAR POWER PLANT

October 2, 2012

EXTENT OF PLAY AGREEMENT:

ASHTABULA COUNTY, OHIO

The EOC portion of the exercise will take place on October 2, 2012.

Criteria that can be re-demonstrated immediately for credit, by a decision of the evaluator, include the following: 3.a.1, 3.d.1, 3.d.2, 6.a.1, 6.b.1, 6.c.1, and 6.d.1. Criteria that may be re-demonstrated, as approved on a case-by-case basis by the Chairman of the Radiological Assistance Committee include the following: 2.a.1, 2.b.1, 2.b.2, 5.a.1 and 5.b.1

EVALUATION AREA 1 – EMERGENCY OPERATIONS MANAGEMENT

Sub-element 1.a – Mobilization

Intent: Sub-element **1.a** 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)

Extent of Play

Ashtabula County EOC Staff will mobilize upon notification from the Ashtabula County Sheriff's Dispatch Center, which is the 24-hour notification point and receives the call via a dedicated line from the Perry Plant. Full field notification utilizing primary means of communication will be completed one time only from the EOC, at the Site Area Emergency classification.

Field agency demonstrations will be conducted out-of-sequence and participants will be pre-positioned.

Field Activity Participants

- Geneva-on-the-Lake Fire Department – Back-up Route Alerting Geneva-on-the-Lake Police – Traffic/Access Control by interview only at their facility
- Conneaut Fire Department – Public Monitoring/Decontamination Conneaut Middle School – Care Center

- American Red Cross

Sub-element 1.b – Facilities

Intent: Sub-element **1.b** is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have facilities to support the emergency response.

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

Extent of Play

The availability of facilities to support emergency operations will be shown at the Ashtabula County Emergency Operations Center (EOC). Back-up power will not be demonstrated.

Sub-element 1.c – Direction and Control

Intent: Sub-element **1.c** 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)

Extent of Play

Direction and control of emergency operations will be demonstrated in accordance with the exercise scenario, the Ashtabula County Radiological Emergency Response Plan, Agency SOG and as appropriate for out-ofsequence field demonstrations.

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.

Extent of Play

Primary (dedicated phone lines and commercial telephone) and secondary (radio/pagers/cell phones) means of communications will be demonstrated at the EOC and as appropriate for out-of-sequence field demonstrations. Controllers will drive field play.

Full field notification utilizing primary means of communication will be completed one time only from the EOC, at the Site Area Emergency classification.

'Knowledge Center' will be used/tested for some EOC internal communications, but it will not be evaluated.

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

Intent: Sub-element **1.e** 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)

Extent of Play

The EOC will demonstrate the use of equipment, maps and displays to support emergency operations.

In addition to the KI that the local health department made available to the general public to pick up in 2010, there is a quantity stockpiled at both the EOC and the Health District that would be transported to the care centers and distributed by the local health department, as requested.

EVALUATION AREA 2 – PROTECTIVE ACTION DECISION MAKING

Sub-element 2.a – Emergency Worker Exposure Control

Intent: Sub-element **2.a** 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.4)

Extent of Play

Ashtabula County relies on the Ohio Department of Health (ODH) for the recommendation to take KI. For out-of-sequence field agency demonstrations, this will be demonstrated by interview with exercise participants or by controller inject, if necessary.

The use of a Controller inject will begin the process of authorization for radiation exposures in excess of administrative limits.

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

Intent: Sub-element **2.b** 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).

Extent of Play

N/A – Ashtabula County does not demonstrate this criterion. It relies on the State of Ohio.

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

Extent of Play

The Ashtabula County EOC Executive Group will demonstrate this criterion in coordination with Lake and Geauga counties' Executive Groups and the State of Ohio.

The Director, or designee, of the Ohio Department of Health (ODH) makes the decision for the general public and emergency workers to take KI. The ODH through the local health department makes KI available to the general public, by pre-distribution and by supplies available for distribution at the time of the emergency at care centers.

Sub-element 2.c – PAD Consideration for the Protection of Persons with Disabilities and Access/Functional Needs

Intent: Sub-element **2.c** is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to determine PADs, 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)

Extent of Play

The Ashtabula County EOC Executive Group will demonstrate this criterion in coordination with Lake and Geauga counties' Executive Groups. Typically, schools relocate at Site Area Emergency per procedures. If not relocated prior to General Emergency, schools follow the protective action decisions for the general public; they are not considered a special population group.

Special Needs facilities (jails, hospitals, nursing homes, etc.) will be notified by EOC Personnel and advised of the emergency actions they should take.

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

Intent: Sub-element **2.d** 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).

Extent of Play

N/A – Ashtabula County relies on the State of Ohio.

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

Intent: Sub-element **2.e** 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 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).

Extent of Play

N/A – This Criterion was demonstrated in 2008.

EVALUATION AREA 3 – PROTECTIVE ACTION IMPLEMENTATION

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

Intent: Sub-element **3.a** 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).

Extent of Play

The Ashtabula County EOC Radiological Officer will demonstrate radiation exposure control

capabilities. Dosimetry and exposure control procedures will be demonstrated by field agencies during out-of-sequence exercise activities.

For field agency demonstrations, KI procedures will be demonstrated by interview with exercise participants or by controller inject, if necessary.

Field Activity Participants:

Dosimetry Briefing:

- Geneva-on-the-Lake Fire Department – Back-Up Route Alerting
- Conneaut Fire Department – Public Monitoring/Decontamination
- PIO – Prior to leaving for the JIC

Interview and Dosimetry Briefing

- Geneva-on-the-Lake Police Department – Traffic/Access Control

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

Intent: Sub-element **3.b** 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).

Extent of Play

The Ohio Department of Health (ODH) will make recommendations regarding the use of KI. Ashtabula County's preparedness measures for KI include pre-distribution to the institutionalized and the general public, if they chose to pick it up.

If the ODH recommendation for use of KI excludes the portion of the EPZ that is in Ashtabula County, demonstration of this criterion will be facilitated by discussion with the Ashtabula County Radiological Officer at the EOC.

Interview the EOC Ashtabula County Health Department representative at the EOC during the exercise regarding the distribution of KI for the public at the care center.

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

Extent of Play

Notification to individuals with special needs within the Ashtabula County portion of the EPZ will be simulated. The Ashtabula County EMA maintains a list of special needs organizations within the Ashtabula County portion of the EPZ. The EOC Job and Family Services Representative will coordinate special needs notification activities and, upon request, will present the list for review by the FEMA evaluator. At least 2 transportation providers, which in Ashtabula County are school districts, will be contacted to ensure availability of buses and drivers.

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

Extent of Play

Geneva School District, the only school district in the portion of the EPZ that is in Ashtabula County, successfully demonstrated this Criterion in 2008.

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

Intent: Sub-element **3.d** 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).

Extent of Play

The Geneva-on-the-Lake Police Department will demonstrate this criterion by interview at their facility.

Notification of rail, water and air traffic is a State function.

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

Extent of Play

Ashtabula County EOC will demonstrate the capability to identify and take the appropriate actions in dealing with impediments to evacuation. Actual resources will not be utilized. If an impediment cannot be removed in a timely manner, the decision process to re-route traffic will be discussed and implemented by the appropriate EOC Staff.

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).

Extent of Play

N/A – Ashtabula County relies on the State of Ohio.

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

Intent: Sub-element **3.e** 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).

Extent of Play

N/A – Geauga County relies on the State of Ohio.

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).

Extent of Play

N/A – Ashtabula County relies on the State of Ohio.

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

Intent: Sub-element **3.f** 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*, *re-entry*, 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 of emergency workers and relocation and return of the public during the post-plume phase are coordinated with appropriate organizations and implemented. (NUREG-0654/FEMA-REP-1, E.7; J.10j; J.12; K.5.b; M.1, 3).

Extent of Play

N/A – This Criterion was successfully demonstrated in 2008.

EVALUATION AREA 4 – FIELD MEASUREMENT AND ANALYSIS

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

Intent: Sub-element **4.a** 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).

Extent of Play

N/A – Ashtabula County does not demonstrate this 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).

Extent of Play

N/A – Ashtabula County does not demonstrate this criterion.

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

Intent: Sub-element **4.b** 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).

Extent of Play

N/A – Ashtabula County does not demonstrate this criterion.

Sub-element 4.c – Laboratory Operations.

Intent: Sub-element **4.c** 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).

Extent of Play

N/A – Ashtabula County does not demonstrate this criterion.

EVALUATION AREA 5 – EMERGENCY NOTIFICATION AND PUBLIC INFORMATION

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

Intent: Sub-element **5.a** 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).

Extent of Play

Upon a protective action decision (PAD) by the combined Executive Groups of Ashtabula, Lake and Geauga counties, the Lake County EOC Staff will prepare the appropriate Emergency Alert System (EAS) message and simulate sounding the sirens and sending the message over the EAS system. A quiet siren test will be demonstrated by the Lake County EOC in lieu of an actual siren sounding.

Simulation of sending the EAS message(s) will be conducted as follows:

The procedure for the EAS encoder will be followed to deliver the message to WTAM, the Local Primary Station, with the exception that the telephone number to the station will not be dialed. By not connecting to WTAM, there is no possibility of accidentally broadcasting the message over one or more of the participating EAS stations.

The "send" button on the Lake County EAS encoder will be depressed, and this action will activate the outgoing alert light and playback of the recorded message. Also, a data sheet will automatically be printed by the encoder and the time recorded on the data sheet. Ashtabula and Geauga counties have EAS equipment (encoder) and could provide this function if necessary.

Lake County will fax a copy of the EAS message(s) to the Joint Information Center (JIC) where Public Information Officers (PIOs) may distribute hard copies to the news media representatives and may, if time and circumstances permit, make an announcement regarding the message. Otherwise, the EAS message can be announced at the next scheduled press briefing or in response to news media inquiries about the PAD message.

In delivering information about the EAS message just released, the counties' PIOs may indicate that a corresponding Special News Bulletin (SNB) will be issued soon. Lake County will also fax a copy of the EAS message to Ashtabula and Geauga counties' EOC's.

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).

Extent of Play

Geneva-on-the-Lake Fire Department will demonstrate back-up route alerting as an out-of-sequence, pre-positioned field activity. One predetermined siren located in the fire department's jurisdiction will be out-of-service (simulated) and back-up route alerting will be conducted in the siren coverage area. Use of the mobile PA system will be simulated during the demonstration; an audible PA test will be conducted prior to departure. The demonstration will be initiated by the exercise controller.

Field Activity Participants

- Geneva-on-the-Lake Fire Department

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

Extent of Play

N/A – There are no exception areas in the PNPP Siren System.

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

Intent: Sub-element **5.b** 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).

Extent of Play

Based upon the combined PAD(s) of the Executive Groups of Ashtabula, Geauga and Lake counties, the Lake County EOC Staff will prepare and issue the appropriate EAS message(s) and the corresponding Special News Bulletin(s) (SNB). SNB's give the same message as their corresponding EAS message except SNB's provide greater detail.

Lake County will FAX the SNB(s) to the Joint Information Center (JIC) where one of the counties' PIOs will represent the three counties by directly proceeding to the briefing room and reading the contents of the message to the assembly of news media representatives and answering any questions pertaining to the message. This briefing should begin in a timely manner after transmission of the EAS message from the Lake County EOC to the Local Primary EAS Station. Hard copies of the SNB(s) will be distributed to the news media representatives.

Ashtabula, Geauga and Lake counties will also coordinate release of other informational and instructional message, as necessary. Such messages may include Special Information Bulletins (SIB), which are a third category of prepared messages contained in the counties' "SOG for EAS Messages, Special News Bulletins, and Special Information Bulletins pertaining to the Perry Nuclear Power Plant." These SIB's are considered routine, meaning that they are to be delivered by one of the counties' PIOs at the next scheduled press briefing.

Public Inquiry Workers at the EOC will answer calls from the public. At least one trend will be demonstrated.

EVALUATION AREA 6 – SUPPORT OPERATION/FACILITIES

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

Intent: Sub-element **6.a** 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).

Extent of Play

Conneaut Fire Department will demonstrate this criterion out-of-sequence at Conneaut Middle School, 230 Gateway Avenue, Conneaut. One locker room will be fully set up and demonstrated. A walk-through of the remaining locker room will be conducted upon request.

Six monitoring demonstrations will be conducted using a portal monitor. One individual with simulated contamination will be walked through the monitoring and decontamination process, which includes whole body monitoring using a survey meter; contamination levels will be provided by a controller. Decontamination will be simulated.

At least one evacuee vehicle will be monitored and determined to require decontamination. Decontamination will not require actual wash-down – the decontamination portion of the demonstration may be conducted by interview and discussion with the Evaluator.

"Functional needs" monitoring will be tested/utilized but not be evaluated.

Field Activity Participants

Conneaut Fire Department

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

Intent: Sub-element **6.b** 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).

Extent of Play

N/A – The Saybrook Fire Department successfully demonstrated this criterion at Saybrook High School during the 2010 Evaluated Exercise.

Sub-element 6.c – Temporary Care of Evacuees.

Intent: Sub-element **6.c** 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.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).

Extent of Play

The American Red Cross will demonstrate the congregate care center portion of this criterion out-of-sequence at Conneaut Middle School, 230 Gateway Avenue, Conneaut. American Red Cross personnel will provide a walk-through of the facility and describe their capabilities. Set-up of care center equipment or supplies will be at the discretion of the American Red Cross Disaster Action Team Leader.

Field Activity Participants

- American Red Cross

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

Intent: Sub-element **6.d** 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).

Extent of Play

N/A – Northwest Ambulance Department successfully demonstrated this criterion during the 2010 Evaluated Exercise.

APPENDIX F: SCENARIO TIMELINE

The table below presents the Off-Site Scenario Timeline for key events and activities for the PNPPFull Participation Plume Exposure Pathway Exercise conducted on October 2, 2012.

2012 Evaluated Exercise
OFF-SITE SCENARIO TIMELINE

REAL TIME / DRILL TIME	EVENT	State Actions	County Actions
	Initial Conditions: Plant power 100% Pull Sheet – Current Step IOI-3 and Step 4.6.1 PSA Risk GREEN Simulator Controller May Provide: _ Integrated On-Call Report _ Plant Status Report _ Operator Turn-Over Sheets _ **Drill RWP 12-0007** Equipment Issues: Control rods inserted for fuel defect suppression: 14-31, 18-27, 30-31. 1B21-F051D control switch closed indication on P601 is inoperable. Plant equipment configuration is as seen.		
730 0:00	**Emergency Preparedness Drill begins.** Announcements are made to station personnel.		
735 0:05	SRV 1B21-F051D inadvertently opens while troubleshooting the valve position indication		

REAL TIME / DRILL TIME	EVENT	State Actions	County Actions
736 0:06	I&C Technician reports that his partner shorted energized connections and received an electrical shock and burn on his arm at the SRM/IRM Pre-Amp Enclosure A in 1H22-P090-3.		
737 0:07	First Aid Team is dispatched to scene. SAS calls Lake Co. 911 dispatcher for rescue squad.		Offsite Fire responds beginning MS-1 drill
740 10	SRV closes but Drywell Unidentified Leakage increases.		
750 0:20	Drywell Unidentified Leakage exceeds 10 gpm.		
805 0:35	**Classification within 15 minutes of drywell unidentified leakage greater than 10 gpm as an UNUSUAL EVENT, AU2.**	Receive the Initial Notification Form via 5-way call. EMA begins monitoring situation and makes courtesy calls to ODH and Ohio EPA.	Receive the Initial Notification Form via 5-way call. Notification of key personnel and preparation of news release.

REAL TIME / DRILL TIME	EVENT	State Actions	County Actions
825 / 0:55	Drywell Pressure reaches 1.0 psig, Ops Crew manually scrams the reactor. Some control rods do not insert into the reactor core and power is less than 4%. Drywell, Containment, MSL, and OG Pre-Treatment Rad Monitors increase.		
840 / 1:10	**Classification within 15 minutes of Anticipated Transient Without SCRAM (ATWS) with resulting reactor power < 4% RTP as an ALERT, CA1.** Alternately, Classification of an Alert within 15 minutes of receipt of information of meeting the criteria for AA2, drywell pressure exceeds 1.68 psig.	Receive the Initial Notification Form via 5-way call. State of Ohio activates their Assessment Room in the State EOC to monitor plant events. Selected emergency responders are alerted and placed on stand-by. State personnel (pre-positioned) may be dispatched to the EOF and JIC	Receive the Initial Notification Form via 5-way call. May partially activate County EOC. May deploy Field Monitoring Teams and send personnel to JIC if activated.
855 / 1:15	Suppression Pool Makeup will initiate.		
905 / 1:25	NRC Event Notification of the UE declaration.		

REAL TIME / DRILL TIME	EVENT	State Actions	County Actions
920 / 1:45	FENOC Management Directs JIC Activation		
940 / 2:05	OSC, TSC, and PIRT operational. ERDS activated.		
950 / 2:15	Main Steam Leak results in an incomplete MSL isolation, i.e., loss of Containment barrier.		
955 / 2:20	0955 Main Steam Tunnel Temperature increases causing a MSIV Isolation on High Temperature / Delta T. MSL A fails to isolate.		

REAL TIME / DRILL TIME	EVENT	State Actions	County Actions
1010	**Site Area Emergency within 15 minutes due loss of both the RCS Barrier and the Containment Barrier per AS3.**	Receive the Initial Notification	Receive the Initial Notification
2:30		State begins activation of the State EOC (simulated).	Notify EOC staff and agencies
		State issues news statements once JIC is operational.	Review Initial notification and PAR
		State recommends livestock and poultry be brought inside and placed on stored feed and protected water.	County commissioners consider emergency declaration.
		State restricts air and rail traffic.	School actions as necessary
		State clears parklands and boat traffic from Lake Erie within 10 mile EPZ (If not already done)	Animal advisory
		State may request federal assistance.	Provide public periodic updates.
			(SNB's and press briefings)
		State develops PAR indicating public within 10 mile EPZ monitor EAS stations.	
			Prepared to activate EWDC , Reception Centers, TCP/ACP, Care Center, should situation Escalates
		Governor may declare state of emergency if warranted.	
			Ensure notification of "special facilities / special populations

REAL TIME / DRILL TIME	EVENT	State Actions	County Actions
1125 / 3:45	JIC is operational.		
1140 / 4:00	EOF is operational.		
1215 / 4:35	Drywell Rad Monitor increases.		
1225 / 4:45	Drywell Rad Monitor exceeds 4,000 R/hr.		

REAL TIME / DRILL TIME	EVENT	State Actions	County Actions
1240	**General Emergency, AG1 – declared due to loss of 3 Fission Product Barriers.**	Receive the Initial Notification	Receive the Initial Notification
5:00	**PAR: Evacuate subareas 1, 2, and the Lake.**	State develops news statements based on state activities.	Review Initial notification and PAR
		State develops PAR based on plant conditions / release. Evacuation for Sub Area -1, 2 and Lake Erie,	Formulate PAD with OEMA
		KI will be recommended for emergency workers, institutionalized and public in the same sub areas.	Coordinate with OEMA and other counties for PAD / ANS
		State also considers dose limits for emergency workers based on dose assessment.	Evacuation for sub area -1, 2 and Lake with KI, remainder of EPZ to monitor EAS.
		State continues to develop press releases regarding state activities.	Activate Sirens and broadcast appropriate EAS message.
		State receives field data (controller inject	Ensure Backup route alerting is initiated.
			Provide public periodic updates. (SNB's and press briefings)
			Ensure activation of EWDC , Reception Centers, TCP/ACP, Care Center
1245 / 5:05	Dose assessment results indicate PAR Change is required.		

REAL TIME / DRILL TIME	EVENT	State Actions	County Actions
1305 5:25	Emergency Depressurization (No change in offsite rad release.) Main Steam Stop Valve, 1N11-F020A repaired in Main Steam Line A. No change in offsite rad release because release is upstream of MSSV.		
1430	**Drill Termination.**		

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