

# Final After Action Report/ Improvement Plan

Exercise Dates – April 16 and 17, 2019

Radiological Emergency Preparedness (REP) Program

Davis-Besse Nuclear Power Station



**FEMA**

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UNCLASSIFIED  
Radiological Emergency Preparedness (REP) Program

Final After Action Report/Improvement Plan

Davis-Besse Nuclear Power Station

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## EXECUTIVE SUMMARY

On April 16 and 17, 2019, the Department of Homeland Security, Federal Emergency Management Agency (FEMA) Region V Radiological Emergency Preparedness Program staff evaluated a Full-Participation, Plume and Ingestion Exposure Pathway Exercise in the Emergency Planning Zones (EPZ) for the Davis-Besse Nuclear Power Station (DBNPS). Numerous out-of-sequence activities were conducted in support of the exercise during the weeks of April 8 and April 15, 2019.

The DBNPS is located approximately 21 miles east-south-east of Toledo, Ohio. The 10-mile Plume Exposure Pathway EPZ of the DBNPS includes part of Lake Erie and part, or all, of the following communities: City of Port Clinton, Carroll, Erie, Bay, Benton, Harris, and Salem Townships in Ottawa County and Jerusalem Township in Lucas County. The 50-mile Ingestion Pathway EPZ is comprised of all of Ottawa, Lucas, Wood, Sandusky, Erie, Seneca, Huron, Lorain, Fulton, Henry, Crawford, Hancock, and Wyandot Counties in Ohio; and all of Monroe, Lenawee, Washtenaw, and Wayne Counties in Michigan. Essex County and part of Kent County within the province of Ontario, Canada, are also contained within the 50-mile Emergency Planning Zone

The purpose of the exercise was to assess the level of state and local preparedness in responding to an incident at DBNPS. This exercise was conducted in accordance with FEMA's policies and guidance concerning the exercise of State and Local radiological emergency response plans and procedures. The previous federally-evaluated exercise at this site was conducted on May 2, 2017. The qualifying emergency preparedness exercise was conducted on March 31, 1987.

Officials and representatives from the State of Ohio and the risk counties of Ottawa and Lucas and the Licensee participated in this exercise. State and local officials demonstrated knowledge of their emergency response plans and procedures and successfully implemented them.

The FEMA evaluation team identified no Level 1 Findings, one Level 2 Finding, and no Plan Issues for the State of Ohio. Corrective actions taken during the exercise resolved the State of Ohio Level 2 Finding. Appendix A of the AAR/IP provides details regarding the closure of this Finding. No Findings or Plan Issues were identified for Ottawa and Lucas Counties.

The Federal Emergency Management Agency wishes to acknowledge the efforts of the many individuals who participated in the exercise and made it a success. Over 900 positions were staffed during the in-sequence and out-of-sequence exercise activities, and many positions were filled by local volunteers. The professionalism and teamwork of the participants was evident throughout all phases of the exercise.

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## SECTION 1: Exercise Overview

The U.S. Department of Homeland Security/Federal Emergency Management Agency's (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 Radiological Emergency Preparedness Plans (RERPs) and procedures developed by State and local governments;
- Determining whether such plans and procedures can be implemented on the basis of observation and evaluation of exercises of the plans and procedures conducted by State and local governments;
- Responding to requests by the U.S. Nuclear Regulatory Commission (NRC) pursuant to the Memorandum of Understanding between the NRC and FEMA dated December 7, 2015 (Federal Register, Vol. 82, No. 88, May 9, 2017); and
- Coordinating the activities of Federal agencies with responsibilities in the radiological emergency planning process:
  - U.S. Department of Agriculture;
  - U.S. Department of Commerce;
  - U.S. Department of Energy;
  - U.S. Department of Health and Human Services;
  - U.S. Department of the Interior;
  - U.S. Department of Transportation;
  - U.S. Environmental Protection Agency;
  - U.S. Food and Drug Administration; and
  - U.S. Nuclear Regulatory Commission.

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

A REP Full-Participation Plume and Ingestion Pathway Exercise was conducted on April 16 and 17, 2019, and evaluated by the 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 Davis-Besse Nuclear Power Station (DBNPS). Numerous out-of-sequence activities were conducted in support of the exercise during the weeks of April 8 and April 15, 2019. The purpose of this exercise report is to present the exercise results and findings on the performance of the Offsite Response Organizations (OROs) during a simulated radiological emergency.

The findings presented in this report are based on the evaluations of the Federal evaluation team, with final determinations made by the DHS/FEMA Region V RAC Chair, 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; and
- FEMA P-1028 REP Program Manual, dated January 2016.

## 1.1 EXERCISE DETAILS

### EXERCISE NAME

2019 Davis-Besse Nuclear Power Station Radiological Emergency Preparedness (REP), Full-Participation, Plume and Ingestion Pathway Exercise

### TYPE OF EXERCISE

Plume and Ingestion Pathway

### EXERCISE DATES

April 16 and 17, 2019

### LOCATIONS

See Appendices C and E for a complete list of locations.

### SPONSORS

Ohio Emergency Management Agency  
2855 West Dublin-Granville Road  
Columbus, Ohio 43235

FirstEnergy Nuclear Operating Company – Davis-Besse Nuclear Power Station  
5501 North State Route 2  
Oak Harbor, Ohio 43449

### PROGRAM

Department of Homeland Security/Federal Emergency Management Agency Radiological Emergency Preparedness Program

### MISSION

Response

### SCENARIO TYPE

Radiological Emergency

## 1.2 EXERCISE PLANNING TEAM LEADERSHIP

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## 1.3 PARTICIPATING ORGANIZATIONS

Agencies and organizations of the following jurisdictions participated in the exercise:

### STATE ORGANIZATIONS

Ohio Department of Administrative Services  
Ohio Department of Aging  
Ohio Department of Aging – Office of Long-Term Care Ombudsman  
Ohio Department of Agriculture  
Ohio Department of Developmental Disabilities  
Ohio Department of Education  
Ohio Department of Health  
Ohio Department of Health, Laboratory  
Ohio Department of Homeland Security  
Ohio Department of Insurance  
Ohio Department of Job and Family Services  
Ohio Department of Medicaid  
Ohio Department of Mental Health and Addiction Services  
Ohio Department of Natural Resources  
Ohio Department of Public Safety  
Ohio Department of Rehabilitation and Corrections  
Ohio Department of Transportation  
Ohio Development Services Agency  
Ohio Emergency Management Agency  
Ohio Environmental Protection Agency  
Ohio Geographical Referenced Information Program  
Ohio National Guard  
Public Utilities of Ohio (PUCO)  
Ohio State Fire Marshal  
Ohio State Highway Patrol  
Ohio State University  
Ohio State University Extension

#### Other State Organizations Supporting State of Ohio Operations

Indiana Department of Homeland Security  
Michigan Department of Environmental Quality  
Michigan State Police

#### Other County Organizations Supporting State of Ohio Operations

Lucas County Emergency Management Agency  
Ottawa County Emergency Management Agency  
Sandusky County Emergency Management Agency

### RISK COUNTY ORGANIZATIONS

#### **Ottawa County**

Ottawa County Administrator  
Ottawa County Commissioners  
Ottawa County Court of Common Pleas – Adult Probation Department  
Ottawa County Department of Job and Family Services

Ottawa County Emergency Management Agency  
Ottawa County Engineer  
Ottawa County Health Department  
Ottawa County Information Technology  
Ottawa County Job and Family Services  
Ottawa County Juvenile Court – Probation Department  
Ottawa County Maintenance Department  
Ottawa County Sheriff's Office  
Ottawa County Transportation Agency

*Other County Organizations Supporting Ottawa County Operations*

Ashtabula County Emergency Management Agency  
Beaver County [PA] Emergency Services Department  
Columbiana County Emergency Management Agency  
Erie County Health Department  
Erie County Emergency Management Agency  
Erie County Job and Family Services  
Lake County Emergency Management Agency  
Ottawa County Community Emergency Response Team  
Sandusky County Emergency Management Agency  
Sandusky County Fire Department

*Local Organizations Supporting Ottawa County Operations*

Allen-Clay Joint Fire District  
Benton-Carroll-Salem Schools  
Carroll Township Fire and Emergency Medical Services  
Catawba Island Township Volunteer Fire Department  
City of Sandusky Fire Department  
Danbury Local School District  
Danbury Township Volunteer Fire Department  
Harris-Elmore Volunteer Fire Department  
Mid County Emergency Medical Services  
Ottawa Sandusky Seneca (OSS) Solid Waste District  
Port Clinton School District  
Sandusky High School  
Woodville Township Volunteer Fire Department - Sandusky County

*State Organizations Supporting Ottawa County Operations*

Ohio Department of Health  
Ohio Department of Natural Resources  
Ohio Department of Transportation  
Ohio Emergency Management Agency  
Ohio Environmental Protection Agency  
Ohio National Guard  
Ohio State Highway Patrol  
Ohio State University - Extension

*Federal Organizations Supporting Ottawa County Operations*

U.S. Coast Guard – Station Marblehead

### **Lucas County**

Lucas County Administrator  
Lucas County Commissioners  
Lucas County Department of Education  
Lucas County Department of Job and Family Services  
Lucas County Emergency Management Agency  
Lucas County Job and Family Services  
Lucas County Sheriff's Office  
Toledo-Lucas County Health Department

#### *Other County Organizations Supporting Lucas County Operations*

Geauga County Emergency Management Agency

#### *Local Organizations Supporting Lucas County Operations*

Jerusalem Township Fire Department  
Jerusalem Township Trustee  
Oregon City School District  
Oregon Fire Department  
The City of Oregon Fire Department  
The City of Sandusky Fire Department  
Toledo Fire Department

## **PRIVATE ORGANIZATIONS**

#### *Private Organizations Supporting State of Ohio Operations*

American Red Cross  
Civil Air Patrol  
Davis-Besse Nuclear Power Station  
FirstEnergy Nuclear Operating Company, LLC  
KeyBank - Edison Plaza - Security  
Ohio Aux Comm Team  
Ohio Fire Chief's Association  
Ohio Voluntary Organizations Active in Disaster  
Salvation Army

#### *Private Organizations Supporting Ottawa County Operations*

American Red Cross - Lake Erie Heartland Chapter  
American Red Cross - Northwest Region  
Boy Scouts of America Explorer Program for City of Sandusky  
Davis-Besse Nuclear Power Station (Utility)  
Amateur Radio Emergency Services - Erie County  
Amateur Radio Emergency Services - Sandusky County  
FirstEnergy Corporation  
FirstEnergy Nuclear Operating Company – Davis-Besse Nuclear Power Station  
FirstEnergy Nuclear Operating Company – Beaver Valley Power Station  
FirstEnergy Nuclear Operating Company – Perry Nuclear Power Plant  
Magruder Hospital

*Private Organizations Supporting Lucas County Operations*

American Red Cross - Northwest Ohio Chapter  
BSA Explorer Program - City of Sandusky  
FirstEnergy Corporation  
FirstEnergy Nuclear Operating Company, LLC  
Lucas County Amateur Radio Emergency Services  
Metroparks - Toledo

**FEDERAL ORGANIZATIONS**

U.S. Coast Guard – Sector Detroit  
U.S. Coast Guard – Station Marblehead  
U.S. Department of Agriculture  
U.S. Department of Energy - Federal Radiological Monitoring and Assessment Center  
U.S. Department of Health and Human Services – Centers for Disease Control and Prevention  
U.S. Department of Homeland Security/Federal Emergency Management Agency  
U.S. Environmental Protection Agency  
U.S. Nuclear Regulatory Commission – Region III

**EXERCISE EVALUATION ORGANIZATIONS (See Appendix C For Details)**

U.S. Department of Homeland Security/Federal Emergency Management Agency  
ICF International, Inc. (Contractor Support to DHS/FEMA)



## SECTION 2: Exercise Design Summary

### 2.1 EXERCISE PURPOSE AND DESIGN

The Department of Homeland Security (DHS), Federal Emergency Management Agency (FEMA) administers the Radiological Emergency Preparedness (REP) Program pursuant to the regulations found in Title 44 Code of Federal Regulation (CFR) parts 350, 351, and 352. Title 44 CFR Part 350 names sixteen planning standards that form the basis for radiological emergency response planning for state, tribal, and local governments impacted by the EPZs established for each nuclear power plant site in the United States. Title 44 CFR Part 350 sets forth the mechanisms for the formal review and approval of state, tribal, and local government radiological emergency response plans and procedures by DHS/FEMA. One of the REP Program requirements established by these regulations is the biennial exercise of offsite response capabilities. During these exercises, DHS/FEMA evaluates state, tribal, and local government plans, procedures, and actions to protect the health and safety of the public in the event of a radiological emergency at the nuclear plant.

The DHS/FEMA provides a statement with the transmission of this Final AAR/IP to the United States Nuclear Regulatory Commission (NRC) that the affected state, tribal, and local plans and preparedness are: (1) adequate to protect the health and safety of the public living in the vicinity of the nuclear power facility by providing reasonable assurance that appropriate protective measures can be taken offsite in the event of a radiological emergency; and (2) capable of being implemented. The report and statement are based on the results of this exercise, review of the radiological emergency response plans and procedures, and verification of the periodic requirements set forth in *"Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," November 1980* (NUREG-0654/FEMA-REP-1, Rev. 1) through the annual letter of certification and staff assistance visits.

Formal submission of the radiological emergency response plans for the Davis-Besse Nuclear Power Station to DHS/FEMA Region V by the State of Ohio and Ottawa and Lucas Counties occurred on May 24, 1989. Formal approval of these RERPs was granted by FEMA on March 15, 1991, under 44 CFR 350.

### 2.2 FEMA CORE CAPABILITIES AND EXERCISE OBJECTIVES

Core Capabilities-based planning allows for exercise planning teams to develop exercise objectives and observe exercise outcomes through a framework of specific action items. Using the Homeland Security Exercise and Evaluation Program methodology, the exercise objectives meet the Radiological Emergency Preparedness Program requirements and encompass the emergency preparedness evaluation areas. The critical tasks to be demonstrated were negotiated with the State of Ohio, Ottawa and Lucas Counties. The Core Capabilities demonstrated during this exercise were:

**Operational Coordination:** Mobilize all critical resources and establish and maintain a unified and coordinated operational structure and process that appropriately integrates all critical stakeholders and supports the execution of Core Capabilities. Mobilize all critical resources and establish command, control, and coordination structures within the affected community, in other coordinating bodies in surrounding communities, and across the Nation, and maintain as needed throughout the duration of an incident. Enhance and maintain command, control, and coordination structures consistent with the

National Incident Management System (NIMS) to meet basic human needs, stabilize the incident, and transition to recovery.

**Situational Assessment:** Provide all decision makers with decision-relevant information regarding the nature and extent of the hazard, any cascading effects, and the status of the response. Deliver information sufficient to inform decision making regarding immediate lifesaving and life-sustaining activities, and engage governmental, private, and civic sector resources within and outside of the affected area to meet basic human needs and stabilize the incident. Deliver enhanced information to reinforce ongoing lifesaving and life-sustaining activities, and engage governmental, private, and civic sector resources within and outside of the affected area to meet basic human needs, stabilize the incident, and transition to recovery.

**Public Information and Warning:** Deliver coordinated, prompt, reliable, and actionable information to the whole community through the use of clear, consistent, accessible, and culturally and linguistically appropriate methods to effectively relay information regarding any threat or hazard and, as appropriate, the actions being taken and the assistance being made available. Inform all affected segments of society of critical lifesaving and life-sustaining information by all means necessary, including accessible tools, to expedite the delivery of emergency services and aid the public to take protective actions. Deliver credible and actionable messages to inform ongoing emergency services and the public about protective measures and other life-sustaining actions, and facilitate the transition to recovery.

**Environmental Response/Health and Safety:** Conduct appropriate measures to ensure the protection of the health and safety of the public and workers, as well as the environment, from all-hazards in support of responder operations and the affected communities. Identify, assess, and mitigate worker health and safety hazards, and disseminate health and safety guidance and resources to response and recovery workers. Minimize public exposure to environmental hazards through assessment of the hazards and implementation of public protective actions. Detect, assess, stabilize, and clean up releases of oil and hazardous materials into the environment, including buildings/structures, and properly manage waste. Identify, evaluate, and implement measures to prevent and minimize impacts to the environment, natural and cultural resources, and historic properties from all-hazard emergencies and response operations.

**On-Scene Security, Protection, and Law Enforcement:** Ensure a safe and secure environment through law enforcement and related security and protection operations for people and communities located within affected areas and also for response personnel engaged in lifesaving and life-sustaining operations. Establish a safe and secure environment in an affected area. Provide and maintain on-scene security and meet the protection needs of the affected population over a geographically dispersed area while eliminating or mitigating the risk of further damage to persons, property, and the environment.

**Critical Transportation:** Provide transportation (including infrastructure access and accessible transportation services) for response priority objectives, including the evacuation of people and animals, and the delivery of vital response personnel, equipment, and services into the affected areas. Establish physical access through appropriate transportation corridors and deliver required resources to save lives and to meet the needs of disaster survivors. Ensure basic human needs are met, stabilize the incident, transition into recovery for an affected area, and restore basic services and community functionality. Clear debris from any route type (i.e., road, rail, airfield, port facility, waterway) to facilitate response operations.

**Mass Care Services:** Provide life-sustaining and human services to the affected population, to include hydration, feeding, sheltering, temporary housing, evacuee support, reunification, and distribution of emergency supplies. Move and deliver resources and capabilities to meet the needs of disaster survivors, including individuals with access and functional needs. Establish, staff, and equip emergency shelters

and other temporary housing options (including accessible housing) for the affected population. Move from congregate care to non-congregate care alternatives and provide relocation assistance or interim housing solutions for families unable to return to their pre-disaster homes.

**Public Health, Healthcare, and Emergency Medical Services:** Provide lifesaving medical treatment via Emergency Medical Services and related operations and avoid additional disease and injury by providing targeted public health, medical and behavioral health support, and products to all affected populations. Deliver medical countermeasures to exposed populations. Complete triage and initial stabilization of casualties, and begin definitive care for those likely to survive their injuries and illnesses. Return medical surge resources to pre-incident levels, complete health assessments, and identify recovery processes.

**Operational Communications:** Ensure the capacity for timely communications in support of security, situational awareness, and operations, by any and all means available, among and between affected communities in the impact area and all response forces. Ensure the capacity to communicate with both the emergency response community and the affected populations and establish interoperable voice and data communications between Federal, tribal, state, and local first responders.

**Infrastructure Systems:** Stabilize critical infrastructure functions, minimize health and safety threats, and efficiently restore and revitalize systems and services to support a viable, resilient community. Re-establish critical infrastructure within the affected areas to support ongoing emergency response operations, life sustainment, community functionality, and a transition to recovery. Provide for the clearance, removal, and disposal of debris. This core capability includes the capability to address roadway impediments due to landslides and other events that impair/impede safe evacuation of the public.

The Core Capabilities and their associated Evaluation Criteria selected for demonstration by the jurisdictions establish the assessment objectives for the exercise. These Core Capabilities, when successfully demonstrated, meet the exercise objectives.

The objectives for this exercise were as follows:

**Objective 1:** Demonstrate the ability to provide direction and control and make protective action decisions through the state emergency operations centers, county emergency operations centers, and field activities by exercise play and discussion of plans and procedures.

**Objective 2:** Demonstrate the ability to make protective action decisions affecting state and county emergency workers and the public through exercise play and discussion of plans and procedures.

**Objective 3:** Demonstrate the ability to implement protective actions for state and county emergency workers and the public through exercise play and discussion of plans and procedures.

**Objective 4:** Demonstrate the ability to activate the prompt alert and notification system utilizing the primary notification system and the emergency alert system through exercise play and discussion of plans and procedures.

**Objective 5:** Demonstrate the effectiveness of plans, policies, and procedures in the joint information centers and the joint information system for public and private sector emergency information communications through exercise play and discussion of plans and procedures.

**Objective 6:** Demonstrate the ability to monitor, decontaminate, register, and shelter evacuees through exercise play and discussion of plans and procedures.

**Objective 7:** Demonstrate the ability to provide dose projection and protective action decision making for the plume phase.

**Objective 8:** Demonstrate the capacity for timely communications in support of security, situational awareness, and operations in accordance with the plan, procedures, and Extent-of-Play Agreement, among and between affected communities in the impact area and all response forces.

**Objective 9:** Demonstrate the capacity to stabilize critical infrastructure functions, minimize health and safety threats, and efficiently restore and revitalize systems and services to support a viable, resilient community. Demonstrate the capacity to provide transportation (including infrastructure access and accessible transportation services) for response priority objectives, including the evacuation of people and animals, and the delivery of vital response personnel, equipment, and services into the affected areas.

Collectively, these nine Objectives successfully demonstrated the Core Capabilities and Evaluation Criteria selected by the jurisdictions in accordance with NUREG-0654/FEMA-REP-1 and the REP Program Manual (FEMA P-1028, dated January 2016).

## SECTION 3: Analysis of Capabilities

### 3.1 SUMMARY RESULTS OF EXERCISE EVALUATION

This section provides a combined assessment of state and local jurisdictions based upon their collective demonstrated performance under the core capabilities associated with the exercise evaluation criteria described in Appendix E Extent-of-Play Agreements. It employs an integration of the Homeland Security Exercise Evaluation Program and REP Program evaluation methodologies – an analytical process used to assess the demonstration of specific capabilities during an exercise. A capability provides a means to perform one or more critical tasks under specified conditions and to specific performance standards. Core capabilities form the foundation of the National Preparedness System. The REP Program evaluation criteria provide the conditions and performance standards for establishing reasonable assurance that State and Local authorities can protect public health and safety in response to a nuclear power plant accident.

An overall summary of demonstrated capabilities is presented in Section 3.2, Tables 3.2.1 through 3.2.11, of this report. Criteria-specific narrative summaries are presented in Section 3.3 of the report. The narratives summarize observations made pursuant to the REP Program Evaluation Criteria used to assess the organizations and locations that were selected by the State of Ohio and Ottawa and Lucas Counties. The organizations, locations, and evaluation criteria selected by the State of Ohio and Ottawa and Lucas Counties are described in Appendix E, Extent-of-Play Agreements, which were approved by DHS/FEMA on March 4, 2019.

The results of the assessment are summarized below by Core Capability, as demonstrated during the April 16-17, 2019, DBNPS Full-Participation, Plume and Ingestion Pathway, Radiological Emergency Preparedness Exercise.

**Operational Coordination:** Key leadership personnel established and maintained a unified and coordinated operational structure which provided effective and responsive command, direction and control and coordination within and between the affected jurisdictions to meet basic human needs and stabilize the incident.

Critical stakeholders were appropriately integrated within the overall decision-making process, which enabled protective action recommendations to be evaluated in an appropriate and timely manner. This process included input from both relevant critical stakeholders and support personnel and took into account the safety and well-being of emergency workers and the general public and protecting property and infrastructure protective action decisions were made without undue delay.

**Situational Assessment:** Decision makers were provided with decision-relevant information regarding the nature and extent of the simulated radiological and other hazards, any cascading effects, and the status of the response. The Ohio Emergency Management Agency, Ohio Environmental Protection Agency, and the Ohio Department of Health demonstrated proficiency in the use of dose assessment software to calculate dose projections independent of the Davis-Besse Nuclear Power Station's dose projections. The staff calculated hypothetical dose projections based on plant conditions, possible release scenarios, and Controller-injected field monitoring team data. Leadership was prepared to gather and deliver enhanced information to reinforce lifesaving and life-sustaining activities, if needed, and engage governmental and private sector resources within and outside of the affected area to meet basic human needs and stabilize the incident, as necessary.

**Public Information and Warning:** The jurisdictions as a whole demonstrated the ability to deliver coordinated, prompt, reliable and actionable information to the whole community through the use of clear, consistent and accessible means. Accurate initial information and follow-up on instructions were made with the formulation of news releases being reviewed from the Joint Information System and briefings conducted at the DBNPS Joint Public Information Center and at the Ottawa and Lucas County EMAs. Alert and notification of the public and media was completed in a timely manner by simulated means of sounding of sirens, Emergency Alert System messaging, warning in state parks, news releases and media briefings. The simulated release of information via the aforementioned public information modes were consistent with protective action decisions and contained applicable and specific instructions relative to those decisions.

**Environmental Response/Health and Safety:** Appropriate measures were taken to ensure the protection of the health and safety of the public and workers, as well as the environment in support of responder operations and the affected communities. The availability of guidance and resources to address hazardous radiological materials was integrated in support of responder operations and the affected communities. State Liaisons at the DBNPS Emergency Operations Facility communicated well with the State Emergency Operations Center to ensure that state protective action recommendations and county protective action decisions and responses were coordinated properly. Leadership identified, assessed, and mitigated worker health and safety hazards and disseminated health and safety guidance and resources to responders in accordance with the scenario, plans and procedures, and the extent-of-play agreements.

**On-Scene Security and Protection:** State and local law enforcement agencies demonstrated the capability to ensure a safe and secure environment through law enforcement and related security and protection operations for people and communities located within affected areas and also for response personnel who could have been directed to engage in lifesaving and life-sustaining operations. The implementation of traffic and access control was appropriately assessed and coordinated in a timely manner. On-scene security at EOCs, schools, reception centers and other facilities met protection requirements and eliminated or mitigated the risk of damage to persons, property, and the environment.

**Critical Transportation:** Officials demonstrated the capability to provide infrastructure access and accessible transportation services for response priority objectives, including the evacuation of people and animals and the delivery of vital response personnel, equipment, and services into the affected areas. School officials effectively demonstrated the ability to implement protective actions for affected local schools.

**Mass Care Services:** Congregate care center staff demonstrated the ability to provide life-sustaining services to affected populations with a focus on family reunification, feeding and sheltering. The American Red Cross, which manages all shelter operations under the REP Program, demonstrated the ability to provide resources, services and accommodations consistent with planning guidelines. They also demonstrated knowledge of the process, and to determine whether evacuees had been monitored for contamination and determined to be acceptable before entering congregate care facilities.

**Public Health, Healthcare, and Medical Services:** Qualified medical personnel successfully demonstrate the ability to provide targeted public health, medical, and behavioral health support and products to populations that might enter shelters and deliver medical countermeasures to exposed populations.

**Operational Communications:** Evaluation Criterion 1.d.1, which is the key criterion for this capability, was evaluated for applicable organizations and functional entities. Each applicable organization and location demonstrated the capacity for timely communications in support of security, situational awareness, and operations by primary and backup means, the ability to communicate with both the emergency response community and the affected populations, and to establish interoperable



communications between Federal, state, and local response groups and locations and between affected communities in the impact area.

**Infrastructure Systems:** Evaluation Criterion 3.d.2, which is the key criterion for this capability, was assessed pursuant to the capability of Ottawa and Lucas Counties to address impediments to mass evacuation. Ottawa and Lucas Counties demonstrated the capability to address roadway impediments that impair/impede safe evacuation of the public.

## 3.2 EXERCISE EVALUATION AND RESULTS

This section contains the results and findings of the evaluation of all jurisdictions and functional entities that participated in the April 16 - 17, 2019 Full-Participation Plume Exposure & Ingestion Pathway Exercise and out-of-sequence interviews and demonstrations.

Each jurisdiction and functional entity was evaluated based on their demonstration of Core Capabilities and their equivalent Radiological Emergency Preparedness Evaluation Criteria, as delineated in the Federal Emergency Management Agency Radiological Emergency Preparedness Program Manual dated January 2016. Exercise criteria are listed by number, and the demonstration status of those criteria are indicated by the use of the following terms:

- M: Met (no unresolved Level 1 or Level 2 Findings were assessed, and there were no unresolved Findings from prior exercises)
- L1: Level 1 Finding was assessed
- L2: Level 2 Finding was assessed or there was an unresolved Level 2 Finding from a prior exercise
- P: Plan Issue was assessed
- ND: Not Demonstrated (the criterion was not demonstrated)
- NS: Not Selected (the criterion was not selected for demonstration)

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**Table 3.2.1 – Summary of Exercise Evaluation – State of Ohio**

DATE: April 16, 2019 SITE: Davis-Besse Nuclear Power Station M: Met L1: Level 1 Finding L2: Level 2 Finding P: Plan Issue ND: Not Demonstrated NS: Not Selected	CRITERION	EOC – MARCS Communications Check	Ohio State Highway Patrol – INP	EOC – Executive Room	SEOC – JIC Room – Public Info	SEOC – JIC Room – Public Inquiry	SEOC – Dose Assessment	SEOC – ESF 10	SEOC – Assessment Room	SEOC – Operations Room
Emergency Operations Management										
Mobilization	1a1		M	M	M	M	M		M	M
Facilities	1b1									
Direction and Control	1c1			M					M	M
Communications Equipment	1d1	M	M	M	M	M	M		M	M
Equipment and Supplies to Support Operations	1e1		M	M	M	M	M	M	M	M
Protective Action Decision-Making										
EW Exposure Control Decisions	2a1			M			M	M		
PARs	2b1			M			M			
PADs	2b2						M			
PADs for Disabled/Functional Needs	2c1									
Ingestion PADs	2d1									
RRR Decisions	2e1									
Protective Action Implementation										
EW Exposure Control Implementation	3a1									
KI Public/Institutionalized	3b1									
PAD Implementation Disabled/Functional Needs	3c1									
PAD Implementation Schools	3c2									
TACP Establishment	3d1									
Impediments	3d2									
Implement Ingestion PADs	3e1									
Ingestion Pathway Decisions	3e2									
Implementation 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			M	M	M				
Support Operations and Facilities										
Reception Center Operations	6a1									
EW Monitoring & Decontamination	6b1									
Congregate Care	6c1									
Contaminated Injured Transport & Care	6d1									

UNCLASSIFIED  
Radiological Emergency Preparedness (REP) Program

Final After Action Report/Improvement Plan

Davis-Besse Nuclear Power Station

**Table 3.2.2 – Summary of Exercise Evaluation – State of Ohio**

DATE: April 16-17, 2019 SITE: Davis-Besse Nuclear Power Station M: Met L1: Level 1 Finding L2: Level 2 Finding P: Plan Issue ND: Not Demonstrated NS: Not Selected											
	CRITERION	DBNPS JIC - Public Info/Media Briefings	DBNPS JIC – State of Ohio PIO	DBNPS JIC – Public Inquiry Hotline	STATE LNOs @ EOF	State LNO - Resident Rad Analyst	State LNO - ODH Liaison	SEOC - IZRRAG Room	SEOC - Executive Room	SEOC - IZRRAG Dose Assessment	SEOC – JIC Room / Public Info
Emergency Operations Management											
Mobilization	1a1	M		M	M	M	M				
Facilities	1b1										
Direction and Control	1c1	M		M	M	M	M	M	M	M	
Communications Equipment	1d1	M	M	M	M	M	M				
Equipment and Supplies to Support Operations	1e1	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									M	
RRR Decisions	2e1									M	
Protective Action Implementation											
EW Exposure Control Implementation	3a1						M				
KI Public/Institutionalized	3b1										
PAD Implementation Disabled/Functional Needs	3c1										
PAD Implementation Schools	3c2										
TACP Establishment	3d1										
Impediments	3d2										
Implement Ingestion PADs	3e1							M			
Ingestion Pathway Decisions	3e2							M			
Implementation of RRR Decisions	3f1							M			
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	M	M	M							M
Support Operations and Facilities											
Reception Center Operations	6a1										
EW Monitoring & Decontamination	6b1										
Congregate Care	6c1										
Contaminated Injured Transport & Care	6d1										

**Table 3.2.3 – Summary of Exercise Evaluation – State of Ohio**  
**Out-of-Sequence Activities**

DATE: April 09-10, 2019 SITE: Davis-Besse Nuclear Power Station M: Met L1: Level 1 Finding L2: Level 2 Finding P: Plan Issue ND: Not Demonstrated NS: Not Selected	CRITERION	ODH Laboratory	FMT - DC Briefing – Dosimetry Distribution	Field Monitoring Team Coordinator	Field Monitoring Team 14	Field Monitoring Team 15	Field Monitoring Team Courier
<b>Emergency Operations Management</b>							
Mobilization	1a1	M			M	M	
Facilities	1b1						
Direction and Control	1c1						
Communications Equipment	1d1	M		M	M	M	M
Equipment and Supplies to Support Operations	1e1	M	M	M	M	M	M
<b>Protective Action Decision-Making</b>							
EW Exposure Control Decisions	2a1						
PARs	2b1						
PADs	2b2						
PADs for Disabled/Functional Needs	2c1						
Ingestion PADs	2d1						
RRR Decisions	2e1						
<b>Protective Action Implementation</b>							
EW Exposure Control Implementation	3a1	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						
Ingestion Pathway Decisions	3e2						
Implementation of RRR Decisions	3f1						
<b>Field Measurement and Analysis</b>							
RESERVED	4a1						
Field Team Management	4a2			M			M
Field Team Operations	4a3				M	M	
Field Team Sampling	4b1						
Laboratory Operations	4c1	M					
<b>Emergency Notification and Public Info</b>							
Initial Alert & Notification	5a1						
RESERVED	5a2						
Backup Alert & Notification	5a3						
Exception Area Alerting	5a4						
Subsequent Information & Instructions	5b1						
<b>Support Operations and Facilities</b>							
Reception Center Operations	6a1						
EW Monitoring & Decontamination	6b1						
Congregate Care	6c1						
Contaminated Injured Transport & Care	6d1						

**Table 3.2.4 - Summary of Exercise Evaluation – State of Ohio  
Out-of-Sequence Activities**

DATE: April 15, 2019 SITE: Davis-Besse Nuclear Power Station M: Met L1: Level 1 Finding L2: Level 2 Finding P: Plan Issue ND: Not Demonstrated NS: Not Selected	CRITERION	ODNR Watercraft Primary A&N – Lake Erie - DC Briefing/Dosimetry Dist.	ODNR Watercraft Primary A&N – Lake Erie - Response Operations Interview
Emergency Operations Management			
Mobilization	1a1		
Facilities	1b1		
Direction and Control	1c1		
Communications Equipment	1d1	M	M
Equipment and Supplies to Support Operations	1e1	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
KI Public/Institutionalized	3b1		
PAD Implementation Disabled/Functional Needs	3c1		
PAD Implementation Schools	3c2		
TACP Establishment	3d1		
Impediments	3d2		
Implement Ingestion PADs	3e1		
Ingestion Pathway Decisions	3e2		
Implementation 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		
Support Operations and Facilities			
Reception Center Operations	6a1		
EW Monitoring & Decontamination	6b1		
Congregate Care	6c1		
Contaminated Injured – Transport & Care	6d1		

**Table 3.2.5 – Summary of Exercise Evaluation – State of Ohio  
Out-of-Sequence Activities**

DATE: April 18, 2019 SITE: Davis-Besse Nuclear Power Station M: Met L1: Level 1 Finding L2: Level 2 Finding P: Plan Issue ND: Not Demonstrated NS: Not Selected	CRITERION	Field Team Center Coordinator	Field Sampling Team (ODNR)	Field Sampling Team (ODA)	Field Sampling Team (ODH)	Field Sampling Team (OEPA)	Sample Screen Point
<b>Emergency Operations Management</b>							
Mobilization	1a1	M	M	M	M	M	M
Facilities	1b1						
Direction and Control	1c1						
Communications Equipment	1d1	M	M	M	M	M	M
Equipment and Supplies to Support Operations	1e1	M	M	M	M	M	M
<b>Protective Action Decision-Making</b>							
EW Exposure Control Decisions	2a1						
PARs	2b1						
PADs	2b2						
PADs for Disabled/Functional Needs	2c1						
Ingestion PADs	2d1						
RRR Decisions	2e1						
<b>Protective Action Implementation</b>							
EW Exposure Control Implementation	3a1	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						
Ingestion Pathway Decisions	3e2						
Implementation of RRR Decisions	3f1						
<b>Field Measurement and Analysis</b>							
RESERVED	4a1						
Field Team Management	4a2						
Field Team Operations	4a3						
Field Team Sampling	4b1		M	M	M	M	M
Laboratory Operations	4c1						
<b>Emergency Notification and Public Info</b>							
Initial Alert & Notification	5a1						
RESERVED	5a2						
Backup Alert & Notification	5a3						
Exception Area Alerting	5a4						
Subsequent Information & Instructions	5b1						
<b>Support Operations and Facilities</b>							
Reception Center Operations	6a1						
EW Monitoring & Decontamination	6b1						
Congregate Care	6c1						
Contaminated Injured Transport & Care	6d1						

**Table 3.2.6 – Summary of Exercise Evaluation – Ottawa County**

DATE: April 16, 2019 SITE: Davis-Besse Nuclear Power Station M: Met L1: Level 1 Finding L2: Level 2 Finding P: Plan Issue ND: Not Demonstrated NS: Not Selected	CRITERION	MARCS Communications Check	Sheriff's Office Dispatch Center – INP	EOC – Executive Group	EOC – Public Info Ass't	EOC – Public Inquiry	EOC – Operations Room	DBNPS JIC – Media Center Ottawa County PIO
Emergency Operations Management								
Mobilization	1a1		M	M	M	M	M	
Facilities	1b1							
Direction and Control	1c1			M			M	
Communications Equipment	1d1	M	M	M	M	M	M	M
Equipment and Supplies to Support Operations	1e1		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							
RRR Decisions	2e1							
Protective Action Implementation								
EW Exposure Control Implementation	3a1						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							
Ingestion Pathway Decisions	3e2							
Implementation 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				M	
RESERVED	5a2							
Backup Alert & Notification	5a3							
Exception Area Alerting	5a4							
Subsequent Information & Instructions	5b1				M	M	M	M
Support Operations and Facilities								
Reception Center Operations	6a1							
EW Monitoring & Decontamination	6b1							
Congregate Care	6c1							
Contaminated Injured	6d1							

**Table 3.2.7 – Summary of Exercise Evaluation – Ottawa County  
Out-of-Sequence Activities**

DATE: April 15, 2019 SITE: Davis-Besse Nuclear Power Station M: Met L1: Level 1 Finding L2: Level 2 Finding P: Plan Issue ND: Not Demonstrated NS: Not Selected	CRITERION	Backup RA -DC Mission Briefings - Harris-Elmore Fire	Route Verification (Interview Only) - Harris-Elmore Fire Department	Backup Route Alerting - Harris-Elmore Fire Department
Emergency Operations Management				
Mobilization	1a1			
Facilities	1b1			
Direction and Control	1c1			
Communications Equipment	1d1		M	M
Equipment and Supplies to Support Operations	1e1	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
KI Public/Institutionalized	3b1			
PAD Implementation Disabled/Functional Needs	3c1			
PAD Implementation Schools	3c2			
TACP Establishment	3d1			
Impediments	3d2			
Implement Ingestion PADs	3e1			
Ingestion Pathway Decisions	3e2			
Implementation 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		M	M
Exception Area Alerting	5a4			
Subsequent Information & Instructions	5b1			
Support Operations and Facilities				
Reception Center Operations	6a1			
EW Monitoring & Decontamination	6b1			
Congregate Care	6c1			
Contaminated Injured	6d1			

**Table 3.2.8 – Summary of Exercise Evaluation – Ottawa County  
Out-of-Sequence Activities**

DATE: April 16, 2019 SITE: Davis-Besse Nuclear Power Station M: Met L1: Level 1 Finding L2: Level 2 Finding P: Plan Issue ND: Not Demonstrated NS: Not Selected	CRITERION	DC Briefing - Dosimetry Dist. Danbury Local Schools	EV-2 School – Bus Driver - Danbury Local Schools	EV-2 School – Interview - Danbury Local Schools	Backup RA - DC / Mission Briefings - Carroll Twp Fire Dept	Route Verification - Carroll Twp Fire Dept	Backup Route Alerting - Carroll Twp Fire Dept	DC/Mission Briefings - Dosimetry Dist - Ottawa Co. EOC	TACP – Ottawa - County Highway Garage
<b>Emergency Operations Management</b>									
Mobilization	1a1								
Facilities	1b1								
Direction and Control	1c1								
Communications Equipment	1d1		M	M		M	M		M
Equipment and Supplies to Support Operations	1e1	M	M	M	M	M	M	M	M
<b>Protective Action Decision-Making</b>									
EW Exposure Control Decisions	2a1								
PARs	2b1								
PADs	2b2								
PADs for Disabled/Functional Needs	2c1								
Ingestion PADs	2d1								
RRR Decisions	2e1								
<b>Protective Action Implementation</b>									
EW Exposure Control Implementation	3a1	M	M		M	M	M	M	M
KI Public/Institutionalized	3b1			M					
PAD Implementation Disabled/Functional Needs	3c1								
PAD Implementation Schools	3c2			M					
TACP Establishment	3d1								M
Impediments	3d2								
Implement Ingestion PADs	3e1								
Ingestion Pathway Decisions	3e2								
Implementation of RRR Decisions	3f1								
<b>Field Measurement and Analysis</b>									
RESERVED	4a1								
Field Team Management	4a2								
Field Team Operations	4a3								
Field Team Sampling	4b1								
Laboratory Operations	4c1								
<b>Emergency Notification and Public Info</b>									
Initial Alert & Notification	5a1								
RESERVED	5a2								
Backup Alert & Notification	5a3					M	M		
Exception Area Alerting	5a4								
Subsequent Information & Instructions	5b1								
<b>Support Operations and Facilities</b>									
Reception Center Operations	6a1								
EW Monitoring & Decontamination	6b1								
Congregate Care	6c1								
Contaminated Injured	6d1								



**Table 3.2.9 – Summary of Exercise Evaluation – Ottawa County  
Out-of-Sequence Activities**

DATE: April 17, 2019 SITE: Davis-Besse Nuclear Power Station M: Met L1: Level 1 Finding L2: Level 2 Finding P: Plan Issue ND: Not Demonstrated NS: Not Selected	CRITERION	MS-1 Drill – Transportation - Mid-County EMS	MS-1 Drill – Facility - Magruder Hospital	DC Briefing – Dosimetry – Distribution - Benton- Carroll-Salem Schools	EV-2 School – Interview - Bus Driver - Benton-Carroll- Salem Schools	EV-2 School – Interview - Benton- Carroll-Salem Schools
Emergency Operations Management						
Mobilization	1a1					
Facilities	1b1					
Direction and Control	1c1					
Communications Equipment	1d1				M	M
Equipment and Supplies to Support Operations	1e1	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	
KI Public/Institutionalized	3b1					M
PAD Implementation Disabled/Functional Needs	3c1					
PAD Implementation Schools	3c2					M
TACP Establishment	3d1					
Impediments	3d2					
Implement Ingestion PADs	3e1					
Ingestion Pathway Decisions	3e2					
Implementation 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 and Facilities						
Reception Center Operations	6a1					
EW Monitoring & Decontamination	6b1					
Congregate Care	6c1					
Contaminated Injured	6d1	M	M			

**Table 3.2.10 – Summary of Exercise Evaluation – Lucas County**

DATE: April 16, 2019 SITE: Davis-Besse Nuclear Power Station M: Met L1: Level 1 Finding L2: Level 2 Finding P: Plan Issue ND: Not Demonstrated NS: Not Selected	CRITERION	MARCS Communications Check	Sheriff's Office Dispatch Center – INP	EOC – Executive Room	EOC - Public Info Liaison	EOC - Public Inquiry	EOC - Operations Room	DBNPS JIC / Media Center - Lucas County PIO
Emergency Operations Management								
Mobilization	1a1		M	M	M	M	M	
Facilities	1b1							
Direction and Control	1c1			M			M	
Communications Equipment	1d1	M	M	M	M	M	M	M
Equipment and Supplies to Support Operations	1e1		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							
RRR Decisions	2e1							
Protective Action Implementation								
EW Exposure Control Implementation	3a1						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							
Ingestion Pathway Decisions	3e2							
Implementation 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	M	M
Support Operations and Facilities								
Reception Center Operations	6a1							
EW Monitoring & Decontamination	6b1							
Congregate Care	6c1							
Contaminated Injured	6d1							

**Table 3.2.11 – Summary of Exercise Evaluation – Lucas County  
Out-of-Sequence Activities**

DATE: April 17, 2019 SITE: Davis-Besse Nuclear Power Station M: Met L1: Level 1 Finding L2: Level 2 Finding P: Plan Issue ND: Not Demonstrated NS: Not Selected	CRITERION	TACP - DC / Mission Briefings - Dosimetry Dist - Lucas County Road Patrol Deputy	TACP - Lucas County Road Patrol	DC/Mission Briefings - Dosimetry Dist - Oregon City Schools Trans. Dept.	Protective Actions - Oregon City Schools Trans. Dept.	Reception Center - DC Briefing - Dosimetry Dist - Oregon FD	Reception Center - KI Dist + Evacuee Reg - Oregon FD	Reception Center - Evacuee - Mon Decon - Oregon FD	Reception Center - Evacuee Vehicle - Mon/Decon - Oregon FD
Emergency Operations Management									
Mobilization	1a1								
Facilities	1b1								
Direction and Control	1c1						M		
Communications Equipment	1d1		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								
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
KI Public/Institutionalized	3b1						M		
PAD Implementation Disabled/Functional Needs	3c1								
PAD Implementation Schools	3c2				M				
TACP Establishment	3d1		M						
Impediments	3d2								
Implement Ingestion PADs	3e1								
Ingestion Pathway Decisions	3e2								
Implementation 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 and Facilities									
Reception Center Operations	6a1						M	M	M
EW Monitoring & Decontamination	6b1								
Congregate Care	6c1								
Contaminated Injured	6d1								

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## 3.3 JURISDICTIONAL SUMMARY OF EXERCISE EVALUATION RESULTS

The following sections present narrative summaries that describe observations made during the exercise pursuant to the Evaluation Criteria and Core Capabilities demonstrated at each jurisdiction's response locations. Narrative summaries are organized by Jurisdiction, Location, Assessed Core Capability, and the Evaluation Criterion discussed in the Appendix E Extent-of-Play Agreements. The results of the assessments are summarized in Tables 3.2.1, 3.2.2, 3.2.3, 3.2.4, 3.2.5, 3.2.6, 3.2.7, 3.2.8, 3.2.9, 3.2.10, and 3.2.11.

### 3.3.1 State of Ohio

In summary, the status of DHS/FEMA-evaluated core capabilities and criteria for the State of Ohio is as follows:

- a. MET: All Core Capabilities and Evaluation Criteria identified in the DHS/FEMA-approved extent-of-play agreement. One Level 2 Finding was identified and resolved during the exercise. See Evaluation Criteria 4.a.3 in Section 3.3.1.17 of this report.

#### 3.3.1.1 State Initial Notification Point – Ohio State Highway Patrol

Criterion 1.a.1 – Core Capability: Operational Communications

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety  
Core Capability: Mass Care Services  
Core Capability: Public & Private Services and Resources  
Core Capability: Public Health and Medical Services

#### 3.3.1.2 SEOC – Executive Room

Criterion 1.a.1 – Core Capability: Operational Communications

Criterion 1.c.1 – Core Capability: Operational Coordination  
Core Capability: Operational Communications  
Core Capability: Situational Assessment

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety  
Core Capability: Mass Care Services  
Core Capability: Public & Private Services and Resources  
Core Capability: Public Health and Medical Services

Criterion 2.a.1 – Core Capability: Operational Coordination  
Core Capability: Environmental Response/Health and Safety  
Core Capability: Situational Assessment

Criterion 2.b.1 – Core Capability: Operational Coordination  
Core Capability: Intelligence and Information Sharing  
Core Capability: Environmental Response/Health and Safety  
Core Capability: Operational Communications  
Core Capability: Situational Assessment

Criterion 5.b.1 – Core Capability: Public Information and Warning  
Core Capability: Operational Coordination  
Core Capability: Operational Communications

#### **3.3.1.3 SEOC – JIC Room – Public Information**

Criterion 1.a.1 – Core Capability: Operational Communications

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 5.b.1 – Core Capability: Public Information and Warning  
Core Capability: Operational Coordination  
Core Capability: Operation Communications

#### **3.3.1.4 SEOC – JIC Room – Public Inquiry**

Criterion 1.a.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety  
Core Capability: Mass Care Services  
Core Capability: Public & Private Services and Resources  
Core Capability: Public Health and Medical Services

Criterion 5.b.1 – Core Capability: Public Information and Warning  
Core Capability: Operational Coordination  
Core Capability: Operation Communications

#### **3.3.1.5 SEOC – Dose Assessment Room**

Criterion 1.a.1 – Core Capability: Operational Communications

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety  
Core Capability: Mass Care Services  
Core Capability: Public & Private Services and Resources  
Core Capability: Public Health and Medical Services

Criterion 2.a.1 – Core Capability: Operational Coordination  
Core Capability: Environmental Response/Health and Safety  
Core Capability: Situational Assessment

Criterion 2.b.1 – Core Capability: Operational Coordination  
Core Capability: Intelligence and Information Sharing  
Core Capability: Environmental Response/Health and Safety  
Core Capability: Operational Communications  
Core Capability: Situational Assessment

Criterion 2.b.2 – Core Capability: Operational Coordination  
Core Capability: Intelligence and Information Sharing  
Core Capability: Environmental Response/Health and Safety  
Core Capability: Operational Communications  
Core Capability: Situational Assessment

#### **3.3.1.6 SEOC – ESF 10**

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety  
Core Capability: Mass Care Services  
Core Capability: Public & Private Services and Resources  
Core Capability: Public Health and Medical Services

Criterion 2.a.1 – Core Capability: Operational Coordination  
Core Capability: Environmental Response/Health and Safety  
Core Capability: Situational Assessment

#### **3.3.1.7 SEOC – Assessment Room – Situation Unit / MARCS COMM Check**

Criterion 1.a.1 – Core Capability: Operational Communications

Criterion 1.c.1 – Core Capability: Operational Coordination  
Core Capability: Operational Communications  
Core Capability: Situational Assessment

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety  
Core Capability: Mass Care Services  
Core Capability: Public & Private Services and Resources  
Core Capability: Public Health and Medical Services

#### **3.3.1.8 SEOC – Operations Room**

Criterion 1.a.1 – Core Capability: Operational Communications

Criterion 1.c.1 – Core Capability: Operational Coordination  
Core Capability: Operational Communications  
Core Capability: Situational Assessment

Criterion 1.d.1 – Core Capability: Operational Communications

- Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety
  - Core Capability: Mass Care Services
  - Core Capability: Public & Private Services and Resources
  - Core Capability: Public Health and Medical Services

#### **3.3.1.9 DBNPS JIC – Public Information / Media Briefings**

- Criterion 1.a.1 – Core Capability: Operational Communications
- Criterion 1.c.1 – Core Capability: Operational Coordination
  - Core Capability: Operational Communications
  - Core Capability: Situational Assessment
- Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety
  - Core Capability: Mass Care Services
  - Core Capability: Public & Private Services and Resources
  - Core Capability: Public Health and Medical Services
- Criterion 5.b.1 – Core Capability: Public Information and Warning
  - Core Capability: Operational Coordination
  - Core Capability: Operational Communications

#### **3.3.1.10 DBNPS JIC – State of Ohio PIO**

- Criterion 1.d.1 – Core Capability: Operational Communications
- Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety
  - Core Capability: Mass Care Services
  - Core Capability: Public & Private Services and Resources
  - Core Capability: Public Health and Medical Services
- Criterion 5.b.1 – Core Capability: Public Information and Warning
  - Core Capability: Operational Coordination
  - Core Capability: Operational Communications

#### **3.3.1.11 DBNPS JIC – Public Inquiry Hotline**

- Criterion 1.a.1 – Core Capability: Operational Communications
- Criterion 1.c.1 – Core Capability: Operational Coordination
  - Core Capability: Operational Communications
  - Core Capability: Situational Assessment
- Criterion 1.d.1 – Core Capability: Operational Communications
- Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety
  - Core Capability: Mass Care Services
  - Core Capability: Public & Private Services and Resources
  - Core Capability: Public Health and Medical Services



Criterion 5.b.1 – Core Capability: Public Information and Warning  
Core Capability: Operational Coordination  
Core Capability: Operation Communications

**3.3.1.12 State Liaisons – Emergency Operations Facility (EOF)**

Criterion 1.a.1 – Core Capability: Operational Communications

Criterion 1.c.1 – Core Capability: Operational Coordination  
Core Capability: Operational Communications  
Core Capability: Situational Assessment

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety  
Core Capability: Mass Care Services  
Core Capability: Public & Private Services and Resources  
Core Capability: Public Health and Medical Services

**3.3.1.13 State Liaisons – Ottawa County Emergency Operations Center – Resident Radiological Analyst**

Criterion 1.a.1 – Core Capability: Operational Communications

Criterion 1.c.1 – Core Capability: Operational Coordination  
Core Capability: Operational Communications  
Core Capability: Situational Assessment

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety  
Core Capability: Mass Care Services  
Core Capability: Public & Private Services and Resources  
Core Capability: Public Health and Medical Services

**3.3.1.14 State Liaison – Ottawa County Emergency Operations Center – ODH Liaison**

Criterion 1.a.1 – Core Capability: Operational Communications

Criterion 1.c.1 – Core Capability: Operational Coordination  
Core Capability: Operational Communications  
Core Capability: Situational Assessment

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety  
Core Capability: Mass Care Services  
Core Capability: Public & Private Services and Resources  
Core Capability: Public Health and Medical Services

Criterion 3.a.1 – Core Capability: Operational Coordination  
Core Capability: Environmental Response/Health and Safety

**3.3.1.15 Field Team Center – DC Briefing & Dosimetry Distribution**

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety  
Core Capability: Mass Care Services  
Core Capability: Public & Private Services and Resources  
Core Capability: Public Health and Medical Services

Criterion 3.a.1 – Core Capability: Operational Coordination  
Core Capability: Environmental Response/Health and Safety

**3.3.1.16 Field Monitoring Team Coordinator**

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety  
Core Capability: Mass Care Services  
Core Capability: Public & Private Services and Resources  
Core Capability: Public Health and Medical Services

Criterion 4.a.2 – Core Capability: Operational Coordination

**Core Capability: Situational Assessment**

**3.3.1.17 Field Monitoring Team – FMT-14**

Criterion 1.a.1 – Core Capability: Operational Communications

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety  
Core Capability: Mass Care Services  
Core Capability: Public & Private Services and Resources  
Core Capability: Public Health and Medical Services

Criterion 3.a.1 – Core Capability: Operational Coordination  
Core Capability: Environmental Response/Health and Safety

Criterion 4.a.3 – Core Capability: Environmental Response/Health and Safety

**Level 2 Finding: 18-19-4a3-L2-01    ORO: Ohio Emergency Management Agency    Criterion: 4.a.3**

<b>CONDITION:</b> During an out-of-sequence demonstration on Wednesday, April 10, 2019, a member of FMT-14 did not demonstrate adequate contamination control methods during the doffing of Personal Protective Equipment (PPE).
<b>POSSIBLE CAUSE:</b> One member of FMT-14 was designated to don and doff PPE. He referenced an informal donning/doffing guide during the demonstration. He appeared to be unfamiliar with the doffing process and the necessary sequence of removing PPE to prevent contaminating himself during the process. For example, he removed both pair of gloves before removing other potentially contaminated PPE.
<b>REFERENCE:</b> Field Monitoring Team Donning/Doffing Guide; NUREG-0654/FEMA-REP-1, K.5 and I.8
<b>EFFECT:</b> The failure of using proper doffing techniques could result in contamination of Field Monitoring Team (FMT) members. This could result in a delay in the FMT member returning to the field and could impact the timeliness of future field sampling.
<b>RECOMMENDATION:</b> Provide additional training for Field Monitoring Team personnel on the sequence of donning/doffing PPE. Also consider implementing a buddy system (when possible) to assist the doffing individual to minimize the potential for cross contamination while removing PPE.
<b>SCHEDULE OF CORRECTIVE ACTIONS:</b> Retraining and redemonstration. Due the late hour in the day of the original demonstration and need for lengthy return travel to Columbus, Ohio, the Evaluator and Lead Controller, in consultation with the DHS/FEMA Exercise Director, decided that retraining and redemonstration would be scheduled for the following week, when the same team member would be participating in Ingestion Phase field sampling operations.
<b>CORRECTIVE ACTION DESCRIPTION:</b> On Thursday, April 18, 2019, the team member, who was part of the FMT-14 demonstration the previous week, was retrained on procedures for the use of PPE, and at approximately 0845 EDT he successfully redemonstrated the proper donning and doffing of his PPE in accordance with procedures.  <b>Finding 18-19-4a3-L2-01 is closed.</b>

**3.3.1.18 Field Monitoring Team – FMT-15**

Criterion 1.a.1 – Core Capability: Operational Communications

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety

Core Capability: Mass Care Services

Core Capability: Public & Private Services and Resources

Core Capability: Public Health and Medical Services

Criterion 3.a.1 – Core Capability: Operational Coordination  
Core Capability: Environmental Response/Health and Safety

Criterion 4.a.3 – Core Capability: Environmental Response/Health and Safety

#### **3.3.1.19 Field Monitoring Team Courier**

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety  
Core Capability: Mass Care Services  
Core Capability: Public & Private Services and Resources  
Core Capability: Public Health and Medical Services

Criterion 3.a.1 – Core Capability: Operational Coordination  
Core Capability: Environmental Response/Health and Safety

Criterion 4.a.2 – Core Capability: Operational Coordination  
Core Capability: Situational Assessment

#### **3.3.1.20 ODNR Watercraft – Primary A&N – Lake Erie – DC Briefing & Dosimetry / KI Distribution**

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety  
Core Capability: Mass Care Services  
Core Capability: Public & Private Services and Resources  
Core Capability: Public Health and Medical Services

Criterion 3.a.1 – Core Capability: Operational Coordination  
Core Capability: Environmental Response/Health and Safety

#### **3.3.1.21 ODNR Watercraft – Primary A&N – Lake Erie – Interview**

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety  
Core Capability: Mass Care Services  
Core Capability: Public & Private Services and Resources  
Core Capability: Public Health and Medical Services

Criterion 3.a.1 – Core Capability: Operational Coordination  
Core Capability: Environmental Response/Health and Safety

Criterion 5.a.1 – Core Capability: Operational Communications

#### **3.3.1.22 ODH – Public Health Laboratory**

Criterion 1.a.1 – Core Capability: Operational Communications

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety  
Core Capability: Mass Care Services  
Core Capability: Public & Private Services and Resources  
Core Capability: Public Health and Medical Services

Criterion 3.a.1 – Core Capability: Operational Coordination  
Core Capability: Environmental Response/Health and Safety

Criterion 4.c.1 – Core Capability: Environmental Response/Health and Safety

### **INGESTION PATHWAY DEMONSTRATIONS**

#### **3.3.1.23 Ingestion Pathway – Ingestion Zone Re-entry Recovery Advisory Group (IZRRAG)**

Criterion 1.c.1 – Core Capability: Operational Coordination  
Core Capability: Operational Communications  
Core Capability: Situational Assessment

Criterion 3.e.1 – Core Capability: Operational Coordination  
Core Capability: Environmental Response/Health and Safety

Criterion 3.e.2 – Core Capability: Operational Coordination  
Core Capability: Environmental Response/Health and Safety

Criterion 3.f.1 – Core Capability: Operational Coordination  
Core Capability: Environmental Response/Health and Safety

#### **3.3.1.24 Ingestion Pathway: SEOC – Ingestion Zone Recovery and Reentry Group Chair**

Criterion 1.c.1 – Core Capability: Operational Coordination  
Core Capability: Operational Communications  
Core Capability: Situational Assessment

Criterion 2.d.1 – Core Capability: Operational Coordination  
Core Capability: Environmental Response/Health and Safety

#### **3.3.1.25 Ingestion Pathway: Executive Room**

Criterion 2.e.1 – Core Capability: Operational Coordination  
Core Capability: Environmental Response/Health and Safety

#### **3.3.1.26 Ingestion Pathway: Field Team Center Coordinator**

Criterion 1.a.1 – Core Capability: Operational Communications  
Core Capability: Operational Coordination

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety

Core Capability: Mass Care Services

Core Capability: Public & Private Services and Resources

Core Capability: Public Health and Medical Services

Criterion 3.a.1 – DC Radiological Briefing / Dosimetry Distribution and Emergency

Worker Exposure Control

Core Capability: Operational Coordination

Core Capability: Environmental Response/Health and Safety

#### **3.3.1.27 Ingestion Pathway: SEOC JIC Room – Public Information**

Criterion 5.b.1 – Core Capability: Public Information and Warning

Core Capability: Operational Coordination

Core Capability: Operation Communications

#### **3.3.1.28 Ingestion Pathway: Field Sampling Team (ODNR)**

Criterion 1.a.1 – Core Capability: Operational Communications

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety

Core Capability: Mass Care Services

Core Capability: Public & Private Services and Resources

Core Capability: Public Health and Medical Services

Criterion 3.a.1 – Core Capability: Operational Coordination

Core Capability: Environmental Response/Health and Safety

Criterion 4.b.1 – Core Capability: Operational Coordination

Core Capability: Environmental Response/Health and Safety

#### **3.3.1.29 Ingestion Pathway: Field Sampling Team (ODA)**

Criterion 1.a.1 – Core Capability: Operational Communications

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety

Core Capability: Mass Care Services

Core Capability: Public & Private Services and Resources

Core Capability: Public Health and Medical Services

Criterion 3.a.1 – Core Capability: Operational Coordination

Core Capability: Environmental Response/Health and Safety

Criterion 4.b.1 – Core Capability: Operational Coordination

Core Capability: Environmental Response/Health and Safety

### **3.3.1.30 Ingestion Pathway: Field Sampling Team (ODH)**

Criterion 1.a.1 – Core Capability: Operational Communications

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety  
Core Capability: Mass Care Services  
Core Capability: Public & Private Services and Resources  
Core Capability: Public Health and Medical Services

Criterion 3.a.1 – Core Capability: Operational Coordination  
Core Capability: Environmental Response/Health and Safety

Criterion 4.b.1 – Core Capability: Operational Coordination  
Core Capability: Environmental Response/Health and Safety

### **3.3.1.31 Ingestion Pathway: Field Sampling Teams (OEPA)**

Criterion 1.a.1 – Core Capability: Operational Communications

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety  
Core Capability: Mass Care Services  
Core Capability: Public & Private Services and Resources  
Core Capability: Public Health and Medical Services

Criterion 3.a.1 – Core Capability: Operational Coordination  
Core Capability: Environmental Response/Health and Safety

Criterion 4.b.1 – Core Capability: Operational Coordination  
Core Capability: Environmental Response/Health and Safety

### **3.3.1.32 Ingestion Pathway: Sample Screening Point**

Criterion 1.a.1 – Core Capability: Operational Communications

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety  
Core Capability: Mass Care Services  
Core Capability: Public & Private Services and Resources  
Core Capability: Public Health and Medical Services

Criterion 3.a.1 – Core Capability: Operational Coordination  
Core Capability: Environmental Response/Health and Safety

Criterion 4.b.1 – Core Capability: Operational Coordination  
Core Capability: Environmental Response/Health and Safety

- b. LEVEL 1 FINDINGS: NONE
- c. LEVEL 2 FINDINGS: One Level 2 Finding – Successfully Re-demonstrated.  
(See Section 3.3.1.17, Criterion 4.a.3 and Appendix A)
- d. PLAN ISSUES: NONE
- e. PRIOR ISSUES – RESOLVED: NONE
- f. PRIOR ISSUES – UNRESOLVED: NONE



### 3.3.2 Ottawa County

In summary, the status of DHS/FEMA-evaluated core capabilities and criteria for the Ottawa County is as follows:

- a. MET: All Core Capabilities and Evaluation Criteria identified in the DHS/FEMA-approved extent-of-play agreement.

#### 3.3.2.1 Ottawa County – MARCS Communications Check

Criterion 1.d.1 – Core Capability: Operational Communications

#### 3.3.2.2 Initial Notification Point – Ottawa County Sheriff's Office

Criterion 1.a.1 – Core Capability: Operational Communications

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety  
Core Capability: Mass Care Services  
Core Capability: Public & Private Services and Resources  
Core Capability: Public Health and Medical Services

Criterion 5.a.1 – Core Capability: Public Information and Warning  
Core Capability: Operational Coordination  
Core Capability: Operational Communications

#### 3.3.2.3 EOC – Executive Group

Criterion 1.a.1 – Core Capability: Operational Communications

Criterion 1.c.1 – Core Capability: Operational Coordination  
Core Capability: Operational Communications  
Core Capability: Situational Assessment

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety  
Core Capability: Mass Care Services  
Core Capability: Public & Private Services and Resources  
Core Capability: Public Health and Medical Services

Criterion 2.b.2 – Core Capability: Operational Coordination  
Core Capability: Intelligence and Information Sharing  
Core Capability: Environmental Response/Health and Safety  
Core Capability: Operational Communications  
Core Capability: Situational Assessment

Criterion 2.c.1 – Core Capability: Operational Coordination  
Core Capability: Operational Communications  
Core Capability: Situational Assessment

#### **3.3.2.4 EOC – Public Information Assistant**

Criterion 1.a.1 – Core Capability: Operational Communications  
Criterion 1.d.1 – Core Capability: Operational Communications  
Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety  
Core Capability: Mass Care Services  
Core Capability: Public & Private Services and Resources  
Core Capability: Public Health and Medical Services  
Criterion 5.b.1 – Core Capability: Public Information and Warning  
Core Capability: Operational Communications

#### **3.3.2.5 EOC - Public Inquiry**

Criterion 1.a.1 – Core Capability: Operational Communications  
Criterion 1.d.1 – Core Capability: Operational Communications  
Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety  
Core Capability: Mass Care Services  
Core Capability: Public & Private Services and Resources  
Core Capability: Public Health and Medical Services  
Criterion 5.b.1 – Core Capability: Public Information and Warning  
Core Capability: Operational Communications

#### **3.3.2.6 EOC – Operations Room**

Criterion 1.a.1 – Core Capability: Operational Communications  
Criterion 1.c.1 – Core Capability: Operational Coordination  
Core Capability: Operational Communications  
Core Capability: Situational Assessment  
Criterion 1.d.1 – Core Capability: Operational Communications  
Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety  
Core Capability: Mass Care Services  
Core Capability: Public & Private Services and Resources  
Core Capability: Public Health and Medical Services  
Criterion 3.a.1 – Core Capability: Operational Coordination  
Core Capability: Environmental Response/Health and Safety

- Criterion 3.b.1 – Core Capability: Public Information and Warning
  - Core Capability: Operational Coordination
  - Core Capability: Environmental Response/Health and Safety
  - Core Capability: Public and Private Services and Resources
- Criterion 3.c.1 – Core Capability: Public Information and Warning
  - Core Capability: Operational Coordination
  - Core Capability: Critical Transportation
  - Core Capability: Environmental Response/Health and Safety
- Criterion 3.c.2 – Core Capability: Operational Coordination
  - Core Capability: Critical Transportation
  - Core Capability: Environmental Response/Health and Safety
- Criterion 3.d.1 – Core Capability: Operational Coordination
  - Core Capability: Critical Transportation
  - Core Capability: On-Scene Security and Protection
- Criterion 3.d.2 – Core Capability: Operational Coordination
  - Core Capability: Critical Transportation
  - Core Capability: Infrastructure Systems
- Criterion 5.a.1 – Core Capability: Public Information and Warning
  - Core Capability: Operational Coordination
  - Core Capability: Operational Communications
- Criterion 5.b.1 – Core Capability: Public Information and Warning
  - Core Capability: Operational Communications

#### **3.3.2.7 DBNPS JIC – Ottawa County PIO**

- Criterion 1.d.1 – Core Capability: Operational Communications
- Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety
  - Core Capability: Mass Care Services
  - Core Capability: Public & Private Services and Resources
  - Core Capability: Public Health and Medical Services
- Criterion 5.b.1 – Core Capability: Public Information and Warning
  - Core Capability: Operational Communications

#### **3.3.2.8 EV-2 Schools – Danbury Local Schools – DC Briefing & Dosimetry Distribution**

- Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety
  - Core Capability: Mass Care Services
  - Core Capability: Public & Private Services and Resources
  - Core Capability: Public Health and Medical Services

Criterion 3.a.1 – Core Capability: Operational Coordination  
Core Capability: Environmental Response/Health and Safety

**3.3.2.9 EV-2 Schools – Danbury Local Schools – Bus Driver**

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety  
Core Capability: Mass Care Services  
Core Capability: Public & Private Services and Resources  
Core Capability: Public Health and Medical Services

Criterion 3.a.1 – Core Capability: Operational Coordination  
Core Capability: Environmental Response/Health and Safety

**3.3.2.10 EV-2 Schools – Danbury Local Schools – Interview**

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety  
Core Capability: Mass Care Services  
Core Capability: Public & Private Services and Resources  
Core Capability: Public Health and Medical Services

Criterion 3.b.1 – Core Capability: Public Information and Warning  
Core Capability: Operational Coordination  
Core Capability: Environmental Response/Health and Safety  
Core Capability: Public and Private Services and Resources

Criterion 3.c.2 – Core Capability: Operational Coordination  
Core Capability: Critical Transportation  
Core Capability: Environmental Response/Health and Safety

**3.3.2.11 Backup Route Alerting – DC Mission Briefings – Harris-Elmore Fire Department**

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety  
Core Capability: Mass Care Services  
Core Capability: Public & Private Services and Resources  
Core Capability: Public Health and Medical Services

Criterion 3.a.1 – Core Capability: Operational Coordination  
Core Capability: Environmental Response/Health and Safety

**3.3.2.12 Route Verification (Interview Only) – Harris-Elmore Fire Department**

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety  
Core Capability: Mass Care Services  
Core Capability: Public & Private Services and Resources  
Core Capability: Public Health and Medical Services

Criterion 3.a.1 – Core Capability: Operational Coordination  
Core Capability: Environmental Response/Health and Safety

Criterion 5.a.3 – Core Capability: Public Information and Warning  
Core Capability: Operational Communications

#### **3.3.2.13 Backup Route Alerting – Harris-Elmore Fire Department**

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety  
Core Capability: Mass Care Services  
Core Capability: Public & Private Services and Resources  
Core Capability: Public Health and Medical Services

Criterion 3.a.1 – Core Capability: Operational Coordination  
Core Capability: Environmental Response/Health and Safety

Criterion 5.a.3 – Core Capability: Public Information and Warning  
Core Capability: Operational Communications

#### **3.3.2.14 Backup Route Alerting – DC/Mission Briefings – Carroll Township Fire Department**

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety  
Core Capability: Mass Care Services  
Core Capability: Public & Private Services and Resources  
Core Capability: Public Health and Medical Services

Criterion 3.a.1 – Core Capability: Operational Coordination  
Core Capability: Environmental Response/Health and Safety

#### **3.3.2.15 Route Verification – Carroll Township Fire Department**

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety  
Core Capability: Mass Care Services  
Core Capability: Public & Private Services and Resources  
Core Capability: Public Health and Medical Services

Criterion 3.a.1 – Core Capability: Operational Coordination  
Core Capability: Environmental Response/Health and Safety

Criterion 5.a.3 – Core Capability: Public Information and Warning  
Core Capability: Operational Communications

**3.3.2.16 Backup Route Alerting – Carroll Township Fire Department**

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety  
Core Capability: Mass Care Services  
Core Capability: Public & Private Services and Resources  
Core Capability: Public Health and Medical Services

Criterion 3.a.1 – Core Capability: Operational Coordination  
Core Capability: Environmental Response/Health and Safety

Criterion 5.a.3 – Core Capability: Public Information and Warning  
Core Capability: Operational Communications

**3.3.2.17 Traffic & Access Control – DC/Mission Briefings & Dosimetry Distribution – Ottawa County Engineer**

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety  
Core Capability: Mass Care Services  
Core Capability: Public & Private Services and Resources  
Core Capability: Public Health and Medical Services

Criterion 3.a.1 – Core Capability: Operational Coordination  
Core Capability: Environmental Response/Health and Safety

**3.3.2.18 Traffic & Access Control– Ottawa County Engineer**

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety  
Core Capability: Mass Care Services  
Core Capability: Public & Private Services and Resources  
Core Capability: Public Health and Medical Services

Criterion 3.a.1 – Core Capability: Operational Coordination  
Core Capability: Environmental Response/Health and Safety

Criterion 3.d.1 – Core Capability: Operational Coordination  
Core Capability: Critical Transportation  
Core Capability: On-Scene Security and Protection

### **3.3.2.19 MS-1 Drill – Transportation – Mid County Emergency Medical Services**

- Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety
  - Core Capability: Mass Care Services
  - Core Capability: Public & Private Services and Resources
  - Core Capability: Public Health and Medical Services
- Criterion 3.a.1 – Core Capability: Operational Coordination
  - Core Capability: Environmental Response/Health and Safety
- Criterion 6.d.1 – Core Capability: Operational Coordination
  - Core Capability: Environmental Response/Health and Safety
  - Core Capability: Public Health and Medical Services

### **3.3.2.20 MS-1 Drill – Facility - Magruder Hospital**

- Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety
  - Core Capability: Mass Care Services
  - Core Capability: Public & Private Services and Resources
  - Core Capability: Public Health and Medical Services
- Criterion 3.a.1 – Core Capability: Operational Coordination
  - Core Capability: Environmental Response/Health and Safety
- Criterion 6.d.1 – Core Capability: Operational Coordination
  - Core Capability: Environmental Response/Health and Safety
  - Core Capability: Public Health and Medical Services

### **3.3.2.21 EV-2 Schools – DC Briefing & Dosimetry Distribution – Benton-Carroll-Salem (BCS) Local School District**

- Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety
  - Core Capability: Mass Care Services
  - Core Capability: Public & Private Services and Resources
  - Core Capability: Public Health and Medical Services
- Criterion 3.a.1 – Core Capability: Operational Coordination
  - Core Capability: Environmental Response/Health and Safety

### **3.3.2.22 EV-2 Schools – Interview - Bus Driver – Benton-Carroll-Salem (BCS) Local School District**

- Criterion 1.d.1 – Core Capability: Operational Communications
- Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety
  - Core Capability: Mass Care Services
  - Core Capability: Public & Private Services and Resources
  - Core Capability: Public Health and Medical Services
- Criterion 3.a.1 – Core Capability: Operational Coordination
  - Core Capability: Environmental Response/Health and Safety

### **3.3.2.23 EV-2 School – Interview – Benton-Carroll-Salem (BCS) Local School District**

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety

Core Capability: Mass Care Services

Core Capability: Public & Private Services and Resources

Core Capability: Public Health and Medical Services

Criterion 3.b.1 – Core Capability: Public Information and Warning

Core Capability: Operational Coordination

Core Capability: Environmental Response/Health and Safety

Core Capability: Public and Private Services and Resources

Criterion 3.c.2 – Core Capability: Operational Coordination

Core Capability: Critical Transportation

Core Capability: Environmental Response/Health and Safety

- b. LEVEL 1 FINDINGS: NONE
- c. LEVEL 2 FINDINGS: NONE
- d. PLAN ISSUES: NONE
- e. PRIOR ISSUES: RESOLVED: NONE
- f. PRIOR ISSUES: UNRESOLVED: NONE



### 3.3.3 Lucas County

In summary, the status of DHS/FEMA-evaluated core capabilities and criteria for the Lucas County is as follows:

- a. MET: All Core Capabilities and Evaluation Criteria identified in the DHS/FEMA-approved extent-of-play agreement.

#### 3.3.3.1 Lucas County – MARCS Communications Check

Criterion 1.d.1 – Core Capability: Operational Communications

#### 3.3.3.2 Initial Notification Point – Lucas County Dispatch Center

Criterion 1.a.1 – Core Capability: Operational Communications

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety  
Core Capability: Mass Care Services  
Core Capability: Public & Private Services and Resources  
Core Capability: Public Health and Medical Services

#### 3.3.3.3 EOC – Executive Room

Criterion 1.a.1 – Core Capability: Operational Communications

Criterion 1.c.1 – Core Capability: Operational Coordination  
Core Capability: Operational Communications  
Core Capability: Situational Assessment

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety  
Core Capability: Mass Care Services  
Core Capability: Public & Private Services and Resources  
Core Capability: Public Health and Medical Services

Criterion 2.b.2 – Core Capability: Operational Coordination  
Core Capability: Intelligence and Information Sharing  
Core Capability: Environmental Response/Health and Safety  
Core Capability: Operational Communications  
Core Capability: Situational Assessment

Criterion 2.c.1 – Core Capability: Operational Coordination  
Core Capability: Operational Communications  
Core Capability: Situational Assessment

#### **3.3.3.4 EOC – Public Info Liaison**

Criterion 1.a.1 – Core Capability: Operational Communications

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety

Core Capability: Mass Care Services

Core Capability: Public & Private Services and Resources

Core Capability: Public Health and Medical Services

Criterion 5.b.1 – Core Capability: Public Information and Warning

Core Capability: Operational Coordination

Core Capability: Operation Communications

#### **3.3.3.5 EOC – Public Inquiry**

Criterion 1.a.1 – Core Capability: Operational Communications

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety

Core Capability: Mass Care Services

Core Capability: Public & Private Services and Resources

Core Capability: Public Health and Medical Services

Criterion 5.b.1 – Core Capability: Public Information and Warning

Core Capability: Operational Communications

#### **3.3.3.6 EOC – Operations Room**

Criterion 1.a.1 – Core Capability: Operational Communications

Criterion 1.c.1 – Core Capability: Operational Coordination

Core Capability: Operational Communications

Core Capability: Situational Assessment

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety

Core Capability: Mass Care Services

Core Capability: Public & Private Services and Resources

Core Capability: Public Health and Medical Services

Criterion 3.a.1 – Core Capability: Operational Coordination

Core Capability: Environmental Response/Health and Safety

Criterion 3.b.1 – Core Capability: Public Information and Warning  
Core Capability: Operational Coordination  
Core Capability: Environmental Response/Health and Safety  
Core Capability: Public and Private Services and Resources

Criterion 3.c.1 – Core Capability: Public Information and Warning  
Core Capability: Operational Coordination  
Core Capability: Critical Transportation  
Core Capability: Environmental Response/Health and Safety

Criterion 3.c.2 – Core Capability: Operational Coordination  
Core Capability: Critical Transportation  
Core Capability: Environmental Response/Health and Safety

Criterion 3.d.1 – Core Capability: Operational Coordination  
Core Capability: Critical Transportation  
Core Capability: On-Scene Security and Protection

Criterion 3.d.2 – Core Capability: Operational Coordination  
Core Capability: Critical Transportation  
Core Capability: Infrastructure Systems

Criterion 5.a.1 – Core Capability: Public Information and Warning  
Core Capability: Operational Coordination  
Core Capability: Operational Communications

Criterion 5.b.1 – Core Capability: Public Information and Warning  
Core Capability: Operational Communications

#### **3.3.3.7 DBNPS JIC – Media Center – Ottawa County PIO**

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety  
Core Capability: Mass Care Services  
Core Capability: Public & Private Services and Resources  
Core Capability: Public Health and Medical Services

Criterion 5.b.1 – Core Capability: Public Information and Warning  
Core Capability: Operational Communications

#### **3.3.3.8 Traffic and Access Control – DC / Mission Briefings & Dosimetry Distribution – Lucas County Road Patrol**

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety  
Core Capability: Mass Care Services  
Core Capability: Public & Private Services and Resources  
Core Capability: Public Health and Medical Services

Criterion 3.a.1 – Core Capability: Operational Coordination  
Core Capability: Environmental Response/Health and Safety

**3.3.3.9 Traffic and Access Control Point - Lucas County Road Patrol – Interview**

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety  
Core Capability: Mass Care Services  
Core Capability: Public & Private Services and Resources  
Core Capability: Public Health and Medical Services

Criterion 3.a.1 – Core Capability: Operational Coordination  
Core Capability: Environmental Response/Health and Safety

Criterion 3.d.1 – Core Capability: Operational Coordination  
Core Capability: Critical Transportation  
Core Capability: On-Scene Security and Protection

**3.3.3.10 EV-2 Schools – Oregon City Schools – Transportation Department – DC / Mission Briefings & Dosimetry Distribution**

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety  
Core Capability: Mass Care Services  
Core Capability: Public & Private Services and Resources  
Core Capability: Public Health and Medical Services

Criterion 3.a.1 – Core Capability: Operational Coordination  
Core Capability: Environmental Response/Health and Safety

**3.3.3.11 EV-2 Schools – Oregon City Schools – Transportation Department – Interview**

Criterion 3.b.1 – Core Capability: Public Information and Warning  
Core Capability: Operational Coordination  
Core Capability: Environmental Response/Health and Safety  
Core Capability: Public and Private Services and Resources

Criterion 3.c.2 – Core Capability: Operational Coordination  
Core Capability: Critical Transportation  
Core Capability: Environmental Response/Health and Safety

**3.3.3.12 EV-2 Schools – Oregon City Schools Transportation Department**

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety  
Core Capability: Mass Care Services  
Core Capability: Public & Private Services and Resources  
Core Capability: Public Health and Medical Services

Criterion 3.a.1 – Core Capability: Operational Coordination  
Core Capability: Environmental Response/Health and Safety

Criterion 3.c.2 – Core Capability: Operational Coordination  
Core Capability: Critical Transportation  
Core Capability: Environmental Response/Health and Safety

**3.3.3.13 Reception Center - DC Briefing & Dosimetry Distribution – Oregon Fire Department**

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety  
Core Capability: Mass Care Services  
Core Capability: Public & Private Services and Resources  
Core Capability: Public Health and Medical Services

Criterion 3.a.1 – Core Capability: Operational Coordination  
Core Capability: Environmental Response/Health and Safety

**3.3.2.14 Reception Center – KI Distribution / Evacuee Registration – Ohio Department of Health / American Red Cross**

Criterion 1.c.1 – Core Capability: Operational Coordination  
Core Capability: Operational Communications  
Core Capability: Situational Assessment

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety  
Core Capability: Mass Care Services  
Core Capability: Public & Private Services and Resources  
Core Capability: Public Health and Medical Services

Criterion 3.b.1 – Core Capability: Public Information and Warning  
Core Capability: Operational Coordination  
Core Capability: Environmental Response/Health and Safety  
Core Capability: Public and Private Services and Resources

Criterion 6.a.1 – Core Capability: Environmental Response/Health and Safety  
Core Capability: Mass Care Services

**3.3.3.15 Reception Center – Evacuee Monitoring / Decontamination – Oregon Fire Department**

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety  
Core Capability: Mass Care Services  
Core Capability: Public & Private Services and Resources  
Core Capability: Public Health and Medical Services

Criterion 3.a.1 – Core Capability: Operational Coordination  
Core Capability: Environmental Response/Health and Safety

Criterion 6.a.1 – Core Capability: Environmental Response/Health and Safety  
Core Capability: Mass Care Services

**3.3.3.16 Reception Center – Evacuee Vehicle Monitoring / Decontamination –  
Oregon Fire Department**

Criterion 1.d.1 – Core Capability: Operational Communications

Criterion 1.e.1 – Core Capability: Environmental Response/Health and Safety  
Core Capability: Mass Care Services  
Core Capability: Public & Private Services and Resources  
Core Capability: Public Health and Medical Services

Criterion 3.a.1 – Core Capability: Operational Coordination  
Core Capability: Environmental Response/Health and Safety

Criterion 6.a.1 – Core Capability: Environmental Response/Health and Safety  
Core Capability: Mass Care Services

- b. LEVEL 1 FINDINGS: NONE
- c. LEVEL 2 FINDINGS: NONE
- d. PLAN ISSUES: NONE
- e. PRIOR ISSUES – RESOLVED: NONE
- f. PRIOR ISSUES – UNRESOLVED: NONE

## SECTION 4: Conclusion

There were no Level 1 Findings and no Plan Issues identified for the State of Ohio. A Level 2 Finding was identified for the State of Ohio and was successfully redemonstrated during the exercise. The Level 2 Finding results are discussed in Appendix A of this After Action Report/Improvement Plan.

There were no Level 1 or Level 2 Findings and no Plan Issues identified for Ottawa County and Lucas County during the exercise.

Based on the results of this exercise, the planning and preparedness for the State of Ohio and affected local jurisdictions provide reasonable assurance that appropriate measures can be taken to protect public health and safety. Therefore, Title 44 CFR Part 350, approval of the offsite radiological emergency response plans and preparedness for the State of Ohio, remains in effect.

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## APPENDIX A: Improvement Plan

This appendix summarizes the results from the of the evaluation of all jurisdictions and functional entities that participated in the April 16 and 17, 2019, DBNPS Full-Participation, Plume and Ingestion Pathway, REP Exercise to test the offsite emergency response capabilities of State and local governments in the 10-mile and 50-mile EPZ's surrounding the DBNPS, recommended corrective actions, and a schedule of corrective actions for the identified primary responsible agency.

**Level 2 Finding: 18-19-4a3-L2-01    ORO: Ohio Emergency Management Agency    Criterion: 4.a.3**

<b>CONDITION:</b> During an out-of-sequence demonstration on Wednesday, April 10, 2019, a member of FMT-14 did not demonstrate adequate contamination control methods during the doffing of Personal Protective Equipment (PPE).	
<b>POSSIBLE CAUSE:</b> One member of FMT-14 was designated to don and doff PPE. He referenced an informal donning/doffing guide during the demonstration. He appeared to be unfamiliar with the doffing process and the necessary sequence of removing PPE to prevent contaminating himself during the process. For example, he removed both pair of gloves before removing other potentially contaminated PPE.	
<b>REFERENCE:</b> Field Monitoring Team Donning/Doffing Guide; NUREG-0654/FEMA-REP-1, K.5 and I.8	
<b>EFFECT:</b> The failure of using proper doffing techniques could result in contamination of Field Monitoring Team (FMT) members. This could result in a delay in the FMT member returning to the field and could impact the timeliness of future field sampling.	
<b>RECOMMENDATION:</b> Provide additional training for Field Monitoring Team personnel on the sequence of donning/doffing PPE. Also consider implementing a buddy system (when possible) to assist the doffing individual to minimize the potential for cross contamination while removing PPE.	
<b>SCHEDULE OF CORRECTIVE ACTIONS:</b> Retraining and redemonstration. Due the late hour in the day of the original demonstration and need for lengthy return travel to Columbus, Ohio, the Evaluator and Lead Controller, in consultation with the DHS/FEMA Exercise Director, decided that retraining and redemonstration would be scheduled for the following week, when the same team member would be participating in Ingestion Phase field sampling operations.	
<b>CORRECTIVE ACTION DESCRIPTION:</b> On Thursday, April 18, 2019, the team member, who was part of the FMT-14 demonstration the previous week, was retrained on procedures for the use of PPE, and at approximately 0845 EDT he successfully redemonstrated the proper donning and doffing of his PPE in accordance with procedures.	
<b>CAPABILITY:</b>  Operational Coordination	<b>PRIMARY RESPONSIBLE AGENCY:</b>  Ohio Emergency Management Agency

UNCLASSIFIED  
Radiological Emergency Preparedness (REP) Program

Final After Action Report/Improvement Plan

Davis-Besse Nuclear Power Station

<b>CORE CAPABILITY ELEMENT:</b> Environmental Response/Health and Safety	<b>DATE COMPLETED:</b> April 18, 2019. <b>Finding 18-19-4a3-L2-01 is closed.</b>
<b>REP ASSESSMENT AREA:</b> Protective Action Implementation	
<b>AGENCY POC:</b> Chris Salz	

## APPENDIX B: Exercise Timeline

Date and Site: April 16, 2019 – Davis-Besse Nuclear Power Station

2019-04-18

Emergency Classification Level Event or Action	Time UTILITY Declared	Time that Notification Was Received or Action Was Taken All Times listed are Eastern Daylight Time (EDT)								
		EOF	SEOC DA Group	SEOC EXEC Group	SEOC ASSESSMENT Group	SEOC OPS Group	OTTAWA County	LUCAS County	SEOC JIC	DBNPS JIC
<b>Unusual Event:</b>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>Alert:</b>	0805	0808	N/A	0832	0819 (INP) 0832 (AG)	0849	0820	0820	0825	0810
<b>Site Area Emergency:</b>	1020	1020	1025	1029	1030	1028	1027	1027	1029	1022
<b>General Emergency:</b>	1155	1155	1208	1210	1206	1211	1210	1210	1211	1155
<b>Release of Rad Material Started:</b>	1148	1148	1210	1210	1206	1227	1152	1209	1212	1155
<b>Release of Rad Material Terminated:</b>	1303	1303	1320	1329	1324	N/A	1322	1321	N/A	1321
<b>Facility Declared Operational:</b>		0908	0900	0835	0850	1050	0849	0844	0840	0917
<b>Declaration of State/Local Emergency:</b> <sup>5</sup>		1056	1042	1045	N/A	1048	1035	1041	1046	1055
<b>Exercise Terminated</b>		1338	1340	N/A	N/A	N/A	1330	1334	N/A	1339
<b>Early Precautionary Action Recommendations:</b>										
<b>1. Relocate School Children:</b>		N/A	N/A	N/A	N/A	N/A	0917	1045	N/A	1055
<b>2. Restrict Boating Traffic: Lake</b>		0929	0925	0916	0927	0933	0926	0920	0918	0927
<b>3. Restrict Air and Rail Traffic:</b>		0933	N/A	0921	0921	0942	Air 0933 Rail 1047	0920	1045	1055
<b>4. Close Parks: Wild Life Refuge</b>		0929	0925	0916	0935	0935	0916	0920	0918	0945
<b>5. Livestock Advisory:</b>		N/A	N/A	1020	1020	N/A	1047	1045	1045	1055
<b>General Information Message Only:     “JIC Activation / Precautionary Actions”</b>		1038	1038	1038	1038	1042	1038	1038	1038	1045
<b>1<sup>st</sup> Siren Activation:</b>		1045	1045	1045	1045	N/A	1045	1045	1045	1045
<b>1<sup>st</sup> EAS/EBS Message: B</b>		1048	1048	1048	1048	N/A	1048	1048	1048	1048

**LEGEND:** NA = ECL/Event/Action Not Applicable at Location

**Date and Site: April 16, 2019 – Davis-Besse Nuclear Power Station**

2019-04-18

Emergency Classification Level  Event or Action	Time that Notification Was Received or Action Was Taken All Times listed are Eastern Daylight Time (EDT)								
	EOF	SEOC DA Group	SEOC EXEC Group	SEOC ASSESSMENT Group	SEOC OPS Group	OTTAWA County	LUCAS County	SEOC JIC	DBNPS JIC
<b>1<sup>st</sup> Protective Action Recommendation:</b> <b>State PAR[s] to County:</b> <b>Evacuate SAs 1, 2, and 12</b> <b>KI to Gen. Pub. SAs 1, 2, and 12</b>	1216	1212	1212	1212	N/A	1212	1212	1212	1217
<b>1<sup>st</sup> Protective Action Decision[s] –County PAD[s]:</b> <input type="checkbox"/> No Action <input type="checkbox"/> Shelter-In-Place Sub-Areas [List]: <input checked="" type="checkbox"/> Evacuate Sub-Areas [List]: <b>1, 2, and 12</b> DRD Correction: 1 R → 1 R	1226	1220	1220	1220	1227	1220	1220	1220	1221
<b>2<sup>nd</sup> Siren Activation:</b>	1225	1225	1225	1225	N/A	1225	1225	1225	1225
<b>2<sup>nd</sup> EAS/EBS Message: D</b>	1229	1228	1228	1228	N/A	1228	1228	1228	1228
<b>KI Administration Recommendation:</b>	N/A	N/A	N/A	N/A	N/A	N/A	1220	N/A	1230
<b>Emergency Workers:</b> <b>Sub-Area[s]: 1, 2, and 12</b>	N/A	1220	1220	1220	1227	1220	1220	1212	1230
<b>Institutionalized Persons:</b> <b>Sub-Area[s]: 1, 2, and 12</b>	N/A	1220	1220	1220	1227	1220	N/A	1212	1230
<b>General Public:</b> <b>Sub-Area[s]: 1, 2, and 12</b>	1216	1220	1220	1220	1227	1220	1220	1212	1230

**LEGEND:** NA = ECL/Event/Action Not Applicable at Location

## APPENDIX C: Exercise Evaluation Team

**SITE: Davis-Besse Nuclear Power Station**

**EXERCISE DATES: April 16 and 17, 2019**

Exercise Management	Name	Agency/ Organization
Chair, Regional Assistance Committee	Sean O’Leary	DHS/FEMA
Exercise Director	Edward Golinski	DHS/FEMA
Assistant Exercise Director	Stephen Tulley	DHS/FEMA
Assistant Exercise Director	Dwaine Warren	DHS/FEMA
Ohio Site Specialist	Brian Reinhart	DHS/FEMA
Assistant Ohio Site Specialist	Carl Bebrich	DHS/FEMA
Team Leader – State of Ohio	Carl Bebrich	DHS/FEMA
Team Leader – Ottawa County	Don Daniel	DHS/FEMA
Team Leader – Lucas County	Alvin Blake	DHS/FEMA
Contractor Evaluator Support – Regional Coordinator	Marcy Campbell	ICFI
Contractor Scenario Technical Reviewer	Jill Leatherman	ICFI
Contractor Administrative Support	Christy Bennett	ICFI

Evaluated Offsite Response Organizations/Locations	Evaluator	Agency/ Organization
<b>State of Ohio</b>		
Ohio – SEOC – Initial Notification Point	Teresa Engelhart	ICFI
Ohio – SEOC – MARCS Communications Check	Mark Dalton	ICFI
Ohio – SEOC – Assessment Room	Mark Dalton	ICFI
Ohio – SEOC – Executive Room	Reggie Rodgers	ICFI
Ohio – SEOC – Executive Room	Mark Dalton	ICFI
Ohio – SEOC – Dose Assessment Room	Tom Essig	ICFI
Ohio – SEOC – Dose Assessment Room	Jill Leatherman	ICFI
Ohio – SEOC – JIC Room – Public Information	Paul Nied	ICFI
Ohio – SEOC – JIC Room – Public Inquiry/Rumor Control	Teresa Engelhart	ICFI
Ohio – SEOC – ESF 10	Jill Leatherman	ICFI
Ohio – SEOC – Operations Room	Frank Cordaro	ICFI
Ohio – State Liaisons – Emergency Operations Facility	Marcy Campbell	ICFI
Ohio – State Liaisons – Ottawa County EOC (RAA)	Mike Howe	DHS/FEMA
Ohio – State Liaisons – Ottawa County EOC (ODH)	Clark Galloway	DHS/FEMA
Ohio – DBNPS JIC – Public Information/Media Briefings	Margaret Swearingen	ICFI
Ohio – DBNPS JIC – State of Ohio PIO (Bullpen)	Margaret Swearingen	ICFI
Ohio – DBNPS JIC – Public Inquiry Hotline	Peter Judge	ICFI
Ohio – SEOC – IZRRAG Executive Room	Darren Bates	DHS/FEMA
Ohio – SEOC – IZRRAG Dose Assessment	Jill Leatherman	ICFI

Evaluated Offsite Response Organizations/Locations	Evaluator	Agency/ Organization
<b>State of Ohio – Out-of-Sequence</b>		
Ohio – ODH Department of Health Laboratory	Tom Essig	ICFI
Ohio – DC Briefing/Dosimetry Distribution	Dave Stuenkel	ICFI
Ohio – Field Team Operations – Field Monitoring Team – Coordinator	Dave Stuenkel	ICFI
Ohio – Field Team Center - Coordinator	Dave Stuenkel	ICFI
Ohio – Field Team Operations – Field Monitoring Team – Courier	Marcy Campbell	ICFI
Ohio – Field Team Operations – Sample Screening Point	Deborah Blunt	ICFI
Ohio – Field Team Operations – Field Monitoring Team #14	Denny Wilford	ICFI
Ohio – Field Team Operations – Field Monitoring Team #15	Bob Walker	ICFI
Ohio – Field Team Operations – Field Sampling Team (ODNR)	Kent Tosch	ICFI
Ohio – Field Team Operations – Field Sampling Team (ODA)	Bob Walker	ICFI
Ohio – Field Team Operations – Field Sampling Team (ODH)	Denny Wilford	ICFI
Ohio – Field Team Operations – Field Sampling Team (OEPA)	Cheryl Weaver	ICFI
Ohio – Primary A&N Lake Erie – DC Briefing/Dosimetry Distribution – ODNR	James King	DHS/FEMA
Ohio – Primary A&N Lake Erie – Interview (ODNR)	James King	DHS/FEMA

<b>Ottawa County</b>		
Ottawa County – MARCS Communications Test	Edward Diaz	DHS/FEMA
Ottawa County – Sheriff's Office Dispatch Center – INP	Edward Diaz	DHS/FEMA
Ottawa County – EOC –Public Inquiry	William McDougall	ICFI
Ottawa County – EOC – Operations Room	Daniel Loomis	ICFI
Ottawa County – EOC – Operations Room	Robert Duggleby	ICFI
Ottawa County – EOC – Executive Group	Todd Gemskie	DHS/FEMA
Ottawa County – EOC – Public Info Assistant	Thomas Hegele	ICFI
Ottawa County – DBNPS JIC Media Center – PIO	Margaret Swearingen	ICFI

<b>Ottawa County – Out-of-Sequence</b>		
Ottawa County – School – DC Briefing/Dosimetry Distribution – Danbury Local Schools	Rosemary Samsel	ICFI
Ottawa County – School – EV-2 School - Bus Driver – Danbury Local Schools	Denny Wilford	ICFI
Ottawa County – School – EV-2 School - Interview – Danbury Local Schools	Rosemary Samsel	ICFI
Ottawa County – Backup RA - DC/Mission Briefings – Carroll Township Fire Department	Dave Stuenkel	ICFI
Ottawa County – Route Verification – Carroll Township Fire Department	Lynn Steffensen	ICFI

Ottawa County – Backup Route Alerting – Carroll Township Fire Department	Lynn Steffensen	ICFI
<b>Evaluated Offsite Response Organizations/Locations</b>	<b>Evaluator</b>	<b>Agency/ Organization</b>
<b>Ottawa County – Out-of-Sequence (Cont'd)</b>		
Ottawa County – DC/Mission Briefings/Dosimetry Distribution – Ottawa County Engineer	Michael Burriss	ICFI
Ottawa County – TCP/ACP – Ottawa County Engineer	Michael Burriss	ICFI
Ottawa County – Backup Route Alerting – DC Mission Briefing – Harris-Elmore Fire Department	Kent Tosch	ICFI
Ottawa County – Route Verification (Interview Only) – Harris-Elmore Fire Department	Kim Alahmadi	DHS/FEMA
Ottawa County – Backup Route Alerting – Harris-Elmore Fire Department	Kim Alahmadi	DHS/FEMA
Ottawa County – MS-1 Drill – Transportation – Mid-County EMS	Michael Henry	ICFI
Ottawa County – MS-1 Drill – Facility – Magruder Hospital	Dave Persaud	DHS/FEMA
Ottawa County – School – DC Briefing/Dosimetry Distribution – Benton-Carroll-Salem Schools	Terry Blackmon	ICFI
Ottawa County – School – EV-2 School – Interview - Bus Driver – Benton-Carroll-Salem Schools	Bob Walker	ICFI
Ottawa County – School – EV-2 School – Interview – Benton-Carroll-Salem Schools	Terry Blackmon	ICFI

<b>Lucas County</b>		
Lucas County – MARCS Communications Test	James King	DHS/FEMA
Lucas County – L-Co Sheriff's Office/Sheriff's Office Dispatch Center – INP	James King	DHS/FEMA
Lucas County – EOC – Executive Room	Thomas Gahan	ICFI
Lucas County – EOC – Public Info Liaison	Roger Winkelmann	ICFI
Lucas County – EOC – Public Inquiry	Brenda Rembert	ICFI
Lucas County – EOC – Operations Room	Don Carlton	ICFI
Lucas County – EOC – Operations Room	Janet Hlavaty-LaPosa	DHS/FEMA
Lucas County – DBNPS JIC Media Center – PIO	Margaret Swearingen	ICFI

<b>Lucas County – Out-of-Sequence</b>		
Lucas County – TCP/ACP – DC/Mission Briefings/Dosimetry Distribution – Lucas County Road Patrol Deputy – Lucas County EOC	Carol Shepard	ICFI
Lucas County – TCP/ACP – Lucas County Road Patrol Deputy – Lucas County EOC	Roger Winkelmann	ICFI
Lucas County – DC/Mission Briefings/Dosimetry Distribution – Oregon City Schools Transportation Department	Clark Duffy	ICFI
Lucas County – Protective Actions – Oregon City Schools Transportation Department	Clark Duffy	ICFI

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Lucas County – Reception Center – DC Briefing/Dosimetry Distribution – Oregon Fire Department	Robert Lemeshka	ICFI
Lucas County – Reception Center – KI Distribution/Evacuee Reg – Oregon Fire Department/American Red Cross	Robert Lemeshka	ICFI
Lucas County – Reception Center – Evacuee – Mon/Decon Oregon Fire Department	Carol Shepard	ICFI
Lucas County – Reception Center – Vehicle – Mon/Decon Oregon Fire Department	James Hickey	ICFI



## APPENDIX D: Acronyms and Abbreviations

ACRONYM	DESCRIPTION
AAR	After Action Report
ACP	Access Control Point
AG	Assessment Group
Ag	Agricultural
ARC	American Red Cross
ARES	Amateur Radio Emergency Services
CAP	Civil Air Patrol
CD V	Civil Defense Victoreen
CDE	Committed Dose Equivalent
CFR	Code of Federal Regulations
cpm	counts per minute
cm	centimeter
Cs	Cesium
DA	Dose Assessment
DC	Dosimetry Coordinator
DHS	Department of Homeland Security
DOE	Department of Energy
DRD	Direct Reading Dosimeter
DRF	Dosimetry Report Form
EAL	Emergency Action Level
EAS	Emergency Alert System
ECL	Emergency Classification Level
ED	Executive Director
EDT	Eastern Daylight Time
EG	Executive Group
EMA	Emergency Management Agency
EMD	Emergency Management Director
EMS	Emergency Medical Service
EOC	Emergency Operation Center
EOF	Emergency Operations Facility
EPD	Electronic Personal Dosimeter
EPZ	Emergency Planning Zone
ER	Executive Room
ESF	Emergency Support Function
EW	Emergency Worker
FD	Fire Department
FEMA	Federal Emergency Management Agency

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Davis-Besse Nuclear Power Station

ACRONYM	DESCRIPTION
FENOC	FirstEnergy Nuclear Operating Company
FMTC	Field Monitoring Team Coordinator
FMT(s)	Field Monitoring Team(s)
GE	General Emergency
GIS	Geographical Information System
GM	Geiger-Mueller
INF	Initial Notification Form
INP	Initial Notification Point
IP	Improvement Plan
JIC	Joint Information Center
KI	Potassium Iodide
LEADS	Law Enforcement Automated Data System
MARCS	Multi-Agency Radio Communications System
MIDAS	Meteorological Information Dose Assessment System
mg	milligram
MHz	Megahertz
μR	micro (10 <sup>-6</sup> ) R/micro Roentgen
mR	milliRoentgen
mR/hr	milliRoentgen/hr
NRC	Nuclear Regulatory Commission
ODA	Ohio Department of Agriculture
ODH	Ohio Department of Health
ODJFS	Ohio Department of Jobs and Family Services
ODNR	Ohio Department of Natural Resources
ODOT	Ohio Department of Transportation
Ohio EMA	Ohio Emergency Management Agency
OEPA	Ohio Environmental Protection Agency
OPHCS	Ohio Health Care System
OHNG	Ohio National Guard
OOS	Out-of-Sequence
ORO	Offsite Response Organizations
OSHP	Ohio State Highway Patrol
PAD	Protective Action Decision
PAG	Protective Action Guideline
PAR	Protective Action Recommendation
PIO	Public Information Officer
DBNPS	Davis-Besse Nuclear Power Station
PPE	Personal Protective Equipment
PRD	Permanent Record Dosimeter
R	Roentgen
RAC	Regional Assistance Committee

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Final After Action Report/Improvement Plan

Davis-Besse Nuclear Power Station

ACRONYM	DESCRIPTION
RCS	Reactor Containment System
rem	radiation exposure man
REP	Radiological Emergency Preparedness
RERP	Radiological Emergency Response Plan
RIMC	Radiological Instrumentation, Maintenance and Calibration
RO	Radiological Officer
SAE	Site Area Emergency (Emergency Classification Level)
SEOC	State Emergency Operations Center
SOG	Suggested Operating Guideline/Standard Operating Guideline
SOP	Standard Operating Procedure
TACP	Traffic and Access Control Point
TCP	Traffic Control Point
TEDE	Total Effective Dose Equivalent
TLD	Thermoluminescent Dosimeter
UHF	Ultra-High Frequency
USCG	United States Coast Guard
VHF	Very High Frequency
VOAD	Voluntary Organizations Active in Disaster
WENS	Wireless Emergency Notification System

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# APPENDIX E: Extent-of-Play Agreements

**STATE OF OHIO  
AND  
OTTAWA AND LUCAS COUNTIES  
DAVIS-BESSE NUCLEAR POWER STATION  
RADIOLOGICAL EMERGENCY PREPAREDNESS  
FULL PARTICIPATION  
PLUME AND INGESTION EXPOSURE PATHWAY EXERCISE  
APRIL 16 AND 17, 2019**

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**DAVIS-BESSE NUCLEAR POWER STATION  
RADIOLOGICAL EMERGENCY RESPONSE  
FULL PARTICIPATION  
PLUME AND INGESTION PATHWAY EXERCISE  
2019**



**STATE OF OHIO  
EXTENT-OF-PLAY AGREEMENT**

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# 2019 Davis-Besse Nuclear Power Station Exercise

## State of Ohio Extent of Play Agreement

### Overview

#### Introduction

This document constitutes the State of Ohio's Extent of Play Agreement for the 2019 Davis-Besse Nuclear Power Station (DBNPS) Radiological Emergency Preparedness Plume Pathway Exercise to be conducted on Tuesday, April 16, 2019 and the Ingestion Pathway Exercise to be conducted on Wednesday, April 17, 2019. The exercise will be a Full Participation demonstration for the State of Ohio. This Extent of Play Agreement was developed by the Exercise Planning Team in accordance with the January 2016 edition of the FEMA REP Program Manual.

#### Contents

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## Acronyms

APM	-	Advanced Party Meeting
Day 1	-	Tuesday, April 16, 2019
Day 2	-	Wednesday, April 17, 2019
DBNPS	-	Davis-Besse Nuclear Power Station
DIL	-	Derived Intervention Level
DRD	-	Direct Reading Dosimeter
DRL	-	Derived Response Level
ECL	-	Emergency Classification Level
EMA	-	Emergency Management Agency
EOC	-	Emergency Operations Center
EOF	-	Emergency Operations Facility
EPZ	-	Emergency Planning Zone
ESF	-	Emergency Support Function
FEMA	-	Federal Emergency Management Agency
FMT	-	Field Monitoring Team
FRMAC	-	Federal Radiological Monitoring & Assessment Center
FTC	-	Field Team Coordinator
GE	-	General Emergency
INP	-	Initial Notification Point
IZRRAG	-	Ingestion Zone Recovery & Reentry Advisory Group
JIC	-	Joint Information Center
KI	-	Potassium Iodide
MARCS	-	Multi-Agency Radio Communication System
MSEL	-	Master Scenario Events List
NRC	-	Nuclear Regulatory Commission
ODA	-	Ohio Department of Agriculture
ODH	-	Ohio Department of Health
ODNR	-	Ohio Department of Natural Resources
OEPA	-	Ohio Environmental Protection Agency
ORO	-	Offsite Response Organization
OSHP	-	Ohio State Highway Patrol
PAD	-	Protective Action Decision
PAG	-	Protective Action Guide
PAR	-	Protective Action Recommendation
PNPP	-	Perry Nuclear Power Plant
PPE	-	Personal Protective Equipment
PRD	-	Permanent Reading Dosimeter
RIMC	-	Radiological Instrument Maintenance/Calibration Lab
SAE	-	Site Area Emergency
SEOC	-	State Emergency Operations Center
TACP	-	Traffic & Access Control Point

## General Information

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### Exercise Scope

The State of Ohio will fully participate in this exercise, with sufficient support for demonstrations by Ottawa and Lucas Counties. In-sequence Plume Phase activities will be conducted on Tuesday April 16, 2019, at the State Initial Warning Point (Ohio State Highway Patrol (OSHP) Dispatch Center); State Emergency Operations Center (SEOC) including the Executive Room, Dose Assessment Room, Assessment Room, and State Joint Information Center (JIC); DBNPS Emergency Operations Facility (EOF); and DBNPS JIC.

All demonstration activities will be conducted in accordance with the FEMA RPM except as noted in this agreement.

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### Out-of-Sequence

Out-of-sequence Plume Phase activities will be conducted on Wednesday, April 10, 2019 with Field Monitoring Team (FMT) demonstrations. On Monday, April 15, 2019, the Ohio Department of Natural Resources (ODNR) Parks & Watercraft will perform their demonstration to clear Lake Erie in Sandusky at 9:00 am.

The Ingestion Phase Exercise will take place on Wednesday, April 17, 2019 with partial participation at the SEOC. Out-of-sequence activities for the ingestion phase will begin on Tuesday, April 9, 2019 at 9:00 am at the ODH-Laboratory. On Thursday, April 18, 2019, Field Team Center, Sample Teams, and Sample Screening will be demonstrated. Sample Teams include ODNR, Ohio Department of Health (ODH), Ohio Environmental Protection Agency (OEPA), and Ohio Department of Agriculture (ODA).

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**Simulation &  
Evaluation  
Notes**

On Tuesday, April 9, 2019, the ODH Lab will not perform any sample analysis. Procedures for sample receipt will be demonstrated.

Sample screening will be simulated on Wednesday, April 10, 2019 after the FMTs relinquish their samples to the Courier.

The IZRRAG, Dose Assessment, Assessment, Executive, and JIC Rooms at the SEOC will be pre-staged and ready for operations for both April 16 and 17, 2019.

The Assessment Room will make one e-Notify call to the 50-mile counties and send one email detailing the Site Area Emergency (SAE). Calls made to 50-mile counties to announce the General Emergency (GE) will be simulated. The 50-mile county General Emergency email will be created, but will not be sent.

There may be pilot "Fact Sheets" utilized for Operations personnel, however, they will not be evaluated for content.

The Public Inquiry Hotline will be demonstrated on Day 1 only.

Media briefings will be demonstrated on Day 1 only. Briefings will be held at the Utility JIC.

Social media will be utilized, but will not be evaluated.

All communications with the Governor will be simulated unless he chooses to attend the exercise.

The Advanced Party Meeting (APM) call with Federal Radiological Monitoring and Assessment Center (FRMAC) will be simulated. A meeting will occur between Ingestion Zone Recovery & Reentry Assistance Group (IZRRAG) and FRMAC to talk through the APM at the end of Day 1 at approximately 3:30 pm.

The scenario for Day 1 will not translate into Day 2 activities. The Day 2 scenario will be divorced from Day 1. A briefing will be held to notify participants of the new scenario.

The IZRRAG, Field Team Center (FTC) Coordinator, Samples Teams, and Sample Screening will utilize RadResponder. RadResponder will not be evaluated. If RadResponder is inoperable, teams will utilize paper forms.

OEPA will simulate sampling vegetation and water. ODH will simulate sampling water. ODNr will simulate sampling fish. ODA will simulate sampling milk. The demonstration will be fulfilled through interview.

If there are inclement weather conditions, OEPA will simulate sampling soil. This demonstration will be fulfilled through interview.

One EPA RAT team member and one FMT member will demonstrate donning and doffing of personal protective equipment. All sample teams members and FMT member will demonstrate the use of gloves per their procedures.

Contamination monitoring and decontamination will not be demonstrated on April 10, 2019 or April 18, 2019.

On Thursday, April 18, 2019, no samples will be transported to the ODH Lab.

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**Master Scenario  
Events List**

The State of Ohio will develop and implement a Master Scenario Events List (MSEL) sufficient to drive actual and simulated state play. Sufficient Controllers will be on hand to provide injects to drive the scenario. The State of Ohio will provide Controller injects and the MSEL to FEMA for review at least 30 days prior to the exercise.

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**Off-Site  
Timeline**

The State of Ohio will develop a timeline of expected off-site state response actions and provide the timeline to FEMA for review at least 30 days prior to the exercise.

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**Re-demonstration  
Criteria**

Criteria that can be re-demonstrated immediately for credit, at the decision of the evaluator, include the following: 1.e.1, 3.a.1, 3.b.1, 3.c.1, 3.c.2, 3.d.1, 4.a.3, 4.b.1, 4.c.1, 5.a.3, 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, 3.d.2, 5.a.1, and 5.b.1.

Controllers may suspend play to address technical issues, confer with evaluators and players to address re-demonstration questions, schedule re-demonstration activities, with the approval of the Evaluator, perform player retraining in support of re-demonstration.

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## **Participating Organizations**

State Off-Site Response Organizations (OROs) participating in this exercise include:

- American Red Cross (ARC)
- Civil Air Patrol (CAP)
- Ohio Department of Administrative Services (DAS)
- Ohio Department of Agriculture (ODA)
- Ohio Department of Developmental Disabilities (DODD)
- Ohio Department of Health (ODH)
- Ohio Department of Job & Family Services (ODJFS)
- Ohio Department of Medicaid
- Ohio Department of Natural Resources (ODNR)
- Ohio Department of Rehabilitation & Corrections (ODRC)
- Ohio Department of Transportation
- Ohio Emergency Management Agency (Ohio EMA)
- Ohio Environmental Protection Agency (OEPA)
- Ohio Mental Health & Addiction Services (Ohio MHAS)
- Ohio National Guard (OHNG)
- Ohio State Highway Patrol (OSHP)

- 
- Ohio State University (OSU)
  - OSU-Extension
  - Public Utilities Commission of Ohio (PUCO)
  - Radio Amateur Civil Emergency Service (RACES)
  - Salvation Army
  - State Fire Marshal
  - US Army
  - US Coast Guard (USCG)
  - US Department of Agriculture – Farm Services Agency (USDA-FSA)

## **Controllers**

Each state demonstration location will be assigned a Controller whose function will be to ensure that exercise activities are conducted safely and remain on track relative to the scenario and exercise timeline.

Controllers will provide injects to drive exercise play in concert with the MSEL and this extent-of-play agreement.

**State Field  
Participation**

State personnel pre-positioned to staff field positions in-sequence will be at the following locations:

- DBNPS EOF
- DBNPS JIC
- Ottawa EOC

The following positions/locations will be pre-positioned for out-of-sequence activities:

- FMT Coordinator
  - FMTs
  - Field Team Center including Field Team Center (FTC) Coordinator, Sample Teams, Sample Screening
  - ODNR Parks & Watercraft
  - ODH Laboratory
-

## Evaluation Area 1 – Emergency Operations Management

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<b>Criterion 1.a.1</b>	OROs use effective procedures to alert, notify and mobilize emergency personnel and activate facilities in a timely manner.
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<b>Locations /Positions</b>	State Initial Notification Point (INP), Assessment Room, Executive Room, State JIC, Dose Assessment Room, SEOC Operations Room, DBNPS JIC, DBNPS EOF, Ottawa County EOC, FMT Coordinator, Communications Vehicle, Sample Screening Point, FMT Courier, FMTs, Field Team Center (FTC) Coordinator,
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<b>Extent of Play 1.a.1.</b>	The State Emergency Operations Center (SEOC) and the Ohio State Highway Patrol (OSHP) Dispatch Center will receive initial notification over the DBNPS 4-Way Conference Bridge that is passcode protected. Phone communications will be performed in Dose Assessment, once activated.
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The state will mobilize all the agencies that have responsibilities in the SEOC. Typically, the JIC, Executive Room, and Dose Assessment will activate at Alert. The Dose Assessment, Assessment, Executive, and JIC Rooms at the SEOC will be pre-staged and ready for operations. Note: The Assessment Room is always staffed. Agencies who staff the Operations Room can arrive at any time, but it is typically activated “officially” at Site Area Emergency. Due to varying scenarios, activations may be made at earlier Emergency Classification Levels (ECLs).

The County EOC, Utility JIC and EOF will activate at Alert. The state representatives assigned to the DBNPS EOF, DBNPS JIC, and the Ottawa County EOC will be prepositioned in the area and arrive 10-20 minutes after the exercise begins to simulate travel time.

Approval of the Governor’s Emergency Declaration will be simulated unless he chooses to attend the exercise.

Ohio EMA/ODH Field Monitoring Teams (FMTs) will be out-of-sequence on Wednesday, April 10, 2019 and will arrive at the Radiological Instrument Maintenance & Calibration (RIMC) Lab in Columbus, Ohio, at 5:30 AM. Equipment will be pre-loaded into FMT vehicles. They will deploy to the Fremont Airport where they will receive their dosimetry briefing and perform equipment operational checks. Communications personnel will also deploy to the Fremont Airport. Sample screening activities will be simulated for this portion of the exercise.

A Field Team Center (FTC) will be established at Fremont Airport on Thursday, April 18, 2019. The Sample Screening Point will be at this location to support Field Sampling Team activities for the ingestion phase portion of the exercise. Individual field sampling teams from ODNR, ODA, ODH, and OEPA will be pre-staged ready to do equipment checks or to be deployed for sampling. OEPA will provide two sample teams for demonstration.

The ODH Laboratory will be pre-staged and ready for operations on April 9, 2019. 1.a.1 will not be demonstrated on Day 2.

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<b>Criterion 1.b.1</b>	Facilities are sufficient to support the emergency response.
<b>Extent of Play 1.b.1</b>	SEOC facilities were successfully demonstrated during the 2018 Beaver Valley Power Station exercise.
<b>Criterion 1.c.1</b>	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.
<b>Locations</b>	Executive Room, Dose Assessment Room, Assessment Room, SEOC Operations Room, DBNPS EOF, Ottawa County EOC, Ingestion Zone Recovery & Reentry Advisory Group (IZRRAG)
<b>Extent of Play 1.c.1</b>	<p>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 Executive Room. The Ohio Department of Health (ODH) is responsible for the determining state Protective Action Recommendations (PARs) in the Dose Assessment Room and will provide periodic briefings to the Executive Group.</p> <p>If the scenario is a fast breaker and ODH has not yet staffed the Dose Assessment Room, a PAR may be developed by Ohio EMA using ODH guidance.</p>
<b>Criterion 1.d.1</b>	At least two communication systems are available, at least one operates properly, and communication links are established with appropriate locations. Communications capabilities are managed in support of emergency operations.
<b>Locations/Positions</b>	State INP, State JIC, Dose Assessment Room, Assessment Room, SEOC Operations Room, DBNPS JIC, DBNPS EOF, Ottawa County EOC, FMT Coordinator, Communications Vehicle, Sample Screening Point, FMT Courier, FMTs, ODNR Parks & Watercraft
<b>Extent of Play 1.d.1</b>	<p>ODNR Parks &amp; Watercraft will be demonstrated out-of-sequence on Monday, April 15, 2019.</p> <p>The primary means of communications between the SEOC, the Ottawa County EOC, DBNPS JIC, and EOF is by commercial and/or dedicated telephone. Backup communications will be demonstrated at approximately 7:45 am on Tuesday, April 16, 2019 in the Assessment Room via a MARCS when the State initiates a radio check with the counties.</p> <p>1.d.1 will not be demonstrated on Day 2.</p>
<b>Criterion 1.e.1</b>	Equipment, maps, displays, monitoring instruments, dosimetry, potassium iodide (KI) and other supplies are sufficient to support emergency operations.

<b>Locations /Positions</b>	State INP, State JIC, Dose Assessment, Assessment, ESF10 Desk, SEOC Operations Room, DBNPS JIC, DBNPS EOF, Ottawa County EOC, Sample Teams, FMT Coordinator, Communications Vehicle, Sample Screening Point, FMT Courier, FMTs, ODNR Parks & Watercraft
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<b>Extent of Play</b>	The state will demonstrate the use of equipment, maps and displays and other supplies to support emergency operations.
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<b>1.e.1</b>	ODNR Parks & Watercraft will be demonstrated out-of-sequence on Monday, April 15, 2019.
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## Evaluation Area 2 – Protective Action Decision Making

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<b>Criterion 2.a.1</b>	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.
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<b>Locations</b>	Dose Assessment Room, ESF10 Desk
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<b>Extent of Play 2.a.1</b>	<p>The SEOC Dose Assessment Group will consider Protective Action Guidelines (PAGs) and Administrative Limits to develop recommendations, including protective action guides and the administration of KI, based on their technical evaluation of the available data. Recommendations will be provided to the Executive Group and subsequently to the County EOCs. The state and counties will disseminate recommendations to their emergency workers. Field monitoring data, appropriate to the scenario, will be provided to the FMT Communicator from an FMT Coordinator Controller located at the Ottawa EOC.</p>
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Any use of KI will be simulated.

ESF-10 will demonstrate the authorization process for radiation exposure in excess of administrative limits. This will be demonstrated as a tabletop at approximately 1:45 pm. The exact time will be coordinated between the Evaluator and Controller.

If the scenario utilized for the exercise does not drive the decision making process this criterion may be demonstrated by Controller facilitated discussion. The state and counties will participate in this discussion together via conference line to allow for fuller exploration of the topic.

2.a.1 will not be demonstrated on Day 2.

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<b>Criterion 2.b.1</b>	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.
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<b>Locations</b>	Executive Room, Dose Assessment Room
<b>Extent of Play</b> <b>2.b.1</b>	<p>The Dose Assessment Room will evaluate the Licensee information and complete independent dose projections, as appropriate, based on that information and field monitoring data. ODH will evaluate the data and forward PARs to the Executive Room. Approved PARs will then be forwarded to the County EOCs via a conference line.</p> <p>If the scenario utilized for the exercise does not drive the decision making process this criterion may be demonstrated by Controller facilitated discussion. The state and counties will participate in this discussion together via conference line to allow for fuller exploration of the topic.</p> <p>2.b.1 will not be demonstrated on Day 2.</p>
<b>Criterion 2.b.2</b>	<p>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).</p>
<b>Locations</b>	Executive Room
<b>Extent of Play</b> <b>2.b.2</b>	<p>The Governor, or his designee, will demonstrate the ability to make appropriate PARs based on technical information from the Dose Assessment Room. Recommendations concerning the use of KI for the general public, institutionalized individuals, and emergency workers are the responsibility of ODH. They are made in the Dose Assessment Room in accordance with the ODH KI policy and will accompany the PAR.</p> <p>Coordination will take place in the Executive Room with Ottawa and Lucas Counties to inform them of the State PAR and ensure consideration of local needs. The counties are responsible for making the PAD and its implementation.</p> <p>If the scenario utilized for the exercise does not drive the decision-making process, this criterion may be demonstrated by Controller facilitated discussion. The state and counties will participate in this discussion together via conference line to allow for fuller exploration of the topic.</p> <p>2.b.2 will not be demonstrated on Day 2.</p>
<b>Criterion 2.c.1</b>	<p>Protective action decisions are made, as appropriate, for groups of persons with disabilities and those with access/functional needs.</p>
<b>Locations</b>	Dose Assessment Room, Executive Room

**Extent of Play 2.c.1** The recommendation to take KI is issued by ODH in the Dose Assessment Room and accompanies the State PAR. Upon being briefed to the Executive Group and approved by the Executive Director, it is then forwarded to Ottawa and Lucas Counties for consideration. The counties are responsible for making and implementing the PAD.

If the scenario utilized for the exercise does not drive the decision making process this criterion may be demonstrated by Controller facilitated discussion. The state and counties will participate in this discussion together via conference line to allow for fuller exploration of the topic.

2.c.1 will not be demonstrated on Day 2.

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**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.

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**Locations** Executive Room, Dose Assessment, IZRRAG

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**Extent of Play 2.d.1** At SAE, a 10-mile ag advisory to shelter livestock and put them on stored feed and water is issued. After GE and the IZRRAG has been convened, advisories detailing protective measures, embargoes, bans, and lifting of any embargoes or bans will be released to the public through the JIC.

During the ingestion pathway, radiological consequences will be assessed by the IZRRAG. IZRRAG partners will demonstrate the selection of sampling locations. However, locations for samples will be simulated to be provided to the Field Team Center, which is demonstrated out-of-sequence. Sampling and lab analysis will be simulated for Day 2 play. Sample analysis results will be provided by controller inject to Dose Assessment.

Results of Dose Assessment's Derived Intervention Level (DIL) calculations from the sample results would normally be provided to the IZRRAG for mapping and further assessment. However, Dose Assessment will be out of sequence to the IZRRAG. Instead, a Controller injected pre-populated map will be provided to IZRRAG with some locations shown still waiting for results, some above the DIL, and some below the DIL.

The IZRRAG may also consult the Federal Advisory Group for recommendations.

After assessment, the IZRRAG will brief the Executive Room on its recommendations for various advisories, such as drinking water and embargoes. The Executive Room will call a Sim Cell, simulating the Counties, to inform them of their recommendations.

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**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.

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<b>Locations</b>	Executive Room, Dose Assessment, IZRRAG
<b>Extent of Play</b> <b>2.e.1</b>	Relocation, reentry, and return decision-making will be demonstrated through tabletop discussions with the Executive Room, IZRRAG, and the Sim Cell. The IZRRAG will provide recommendations for relocation areas and areas available for evacuees to return home to the Executive Room. The Executive Room will discuss the information with the Sim Cell, who will simulate the role of the counties.

### Evaluation Area 3 – Protective Action Implementation

<b>Criterion 3.a.1</b>	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.
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<b>Locations /Positions</b>	FMT Coordinator, Communications Vehicle, FMT Courier, FMTs, EPA Sample Teams, Sample Screening Point, ODNr Parks & Watercraft
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<b>Extent of Play</b> <b>3.a.1</b>	<p>ODNR Parks &amp; Watercraft will be demonstrated out-of-sequence on Monday, April 15, 2019.</p> <p>Direct Reading Dosimeters (DRDs), Permanent Record Dosimeters (PRDs) and KI will be issued to State of Ohio workers who have assignments in the 10-mile EPZ or could travel through a plume. The state personnel responding to the DBNPS EOF, DBNPS JIC, and County EOC will be prepositioned in the area in order to participate in sequence with the rest of the exercise participants.</p> <p>Ingestion of KI, if recommended, will be simulated.</p> <p>EPA will receive a dosimetry briefing prior to deploying to sample.</p> <p>If the scenario does not provide for the demonstration of turn back limits, turn back values will be covered by interview with the Evaluator.</p> <p>3.a.1 will not be demonstrated on Day 2.</p>
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<b>Criterion 3.b.1</b>	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.
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<b>Extent of Play</b> <b>3.b.1</b>	N/A – This is a county function.
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**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.

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Extent of  
Play 3.c.1

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**Criterion 3.c.2** OROs/school officials implement protective actions for schools.

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Extent of  
Play 3.c.2

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**Criterion 3.d.1** Appropriate traffic and access control is established. Accurate instructions are provided to traffic and access control personnel.

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**Locations** Assessment Room

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**Extent of  
Play  
3.d.1** The Assessment Room, with direction from the Executive Group, will procedurally demonstrate restricting air and water traffic within the Emergency Planning Zone, as applicable to the scenario. They will also request rail traffic is restricted in a 25-mile radius of the plant.

The OSHP coordinates directly with County law enforcement to provide State Traffic and Access Control Point (T/ACP) support. (See county extent of play agreements for additional information.).

3.d.1 will not be demonstrated on Day 2.

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

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Extent of  
Play  
3.d.2

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**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.

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**Locations** Dose Assessment, IZRRAG.

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<b>Extent of Play 3.e.1</b>	<p>There will be a facilitator for the Intermediate/Ingestion Phase discussion.</p> <p>The Dose Assessment Room will demonstrate the capability to determine dose using Controller injected sample analysis data from the ODH Lab. Dose Assessment will be out of sequence to the IZRRAG. IZRRAG will utilize Controller-injected results and maps, and FRMAC flyover maps, if available, to develop PARs. Current lists of farmers, food producers, distributors, and surface water within the 50-mile downwind wedge will be used in making these recommendations.</p>
<b>Criterion 3.e.2</b>	<p>Appropriate measures, strategies and pre-printed instructional material are developed for implementing protective action decisions for contaminated water, food products, milk and agricultural production.</p>
<b>Locations</b>	<p>Dose Assessment, IZRRAG.</p>
<b>Extent of Play 3.e.2</b>	<p>IZRRAG will demonstrate the capability to recommend protective actions for the Ingestion Pathway. Current lists of farmers, food producers, distributors, and water supplies will be used in making recommendations.</p> <p>The IZRRAG will demonstrate, through discussion, the capability to make ingestion information available to farmers, food processors, and food producers within the 50-mil planning zone. The distribution of the ag brochure will be simulated.</p> <p>Dose Assessment will be out of sequence to the IZRRAG.</p>
<b>Criterion 3.f.1</b>	<p>Decisions regarding controlled re-entry of emergency workers and relocation and return of the public during the post-plume phase are coordinated with appropriate organizations and implemented.</p>
<b>Locations</b>	<p>Dose Assessment, IZRRAG.</p>
<b>Extent of Play 3.f.1</b>	<p>IZRRAG will formulate protective action recommendations related to relocation and return. Recommendations will be communicated to the Executive Room.</p> <p>The Facilitator will ensure jumps in time are recognized while Controllers provide necessary information (e.g., maps, data, conditions). Other information will be provided during a briefing to describe scenario changes. The IZRRAG will be given sufficient time to review information then to identify key issues, assign tasks as needed, make appropriate recommendations, and describe implementing actions that would be taken to address identified issues and decisions.</p>

## Evaluation Area 4 – Field Measurement and Analysis

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**Criterion 4.a.1** [RESERVED]

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**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.

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**Locations  
/Positions** FMT Coordinator

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**Extent of  
Play  
4.a.2** FMTs will be managed by the FMT Coordinator located at the Fremont Airport. During the plume phase, the release will be characterized by two State Field Monitoring Teams composed of Ohio EMA and Ohio Department of Health employees. FMTs will be demonstrated out-of-sequence on Wednesday, April 10, 2019. A Controller will provide injects to the FMT Coordinator detailing times, emergency classification levels, meteorological data, and release status. 4.a.2 will only be demonstrated on April 10, 2019.

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**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.

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**Locations  
/Positions** FMTs

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**Extent of  
Play 4.a.3** FMTs will be demonstrated out-of-sequence on Wednesday, April 10, 2019. Radiation readings will be provided to the FMTs via Teletrix Virtual Plumes, a plume simulation software. The Sample Screening Point will be simulated.

Personal Protective Equipment (PPE) may be simulated at the discretion of the Controller in consultation with the Evaluator. Donning and doffing of PPE may be demonstrated by one FMT member. Gloves will be demonstrated during the sampling process by all FMT members who are required to wear gloves.

FMT data will be provided to the FMT Communicator by a FMT Coordinator Controller located at the Ottawa County EOC on Tuesday, April 16, 2019. The Controller will make use of the Teletrix Virtual Plumes to provide data.

4.a.3 will not be demonstrated on Day 2.

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**Criterion 4.b.1** 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.

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**Locations** Sample Teams (ODNR, ODA, ODH, OEPA), FTC Coordinator, Sample Screening Point

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**Extent of Play 4.b.1**

The Field Team Center (FTC), Sample Screening Point, and Sample Teams will be demonstrated out of sequence on Thursday, April 18, 2019. The FTC will be located at the Fremont Airport.

The FTC Coordinator, Sample Screeners, and Sample Teams will be prepositioned at the FTC.

ODNR will simulate sampling fish. They will talk through the process, discuss their equipment, and receive something to simulate a fish filet to process per procedures.

ODA will simulate sampling milk. They will talk through the process, and receive a cubitainer of water to process per procedures. ODA will simulate sampling other food products through interview with the Evaluator.

OEPA will sample soil for deposition. They will simulate sampling vegetation and water through interview with the Evaluator. In the case of inclement weather, OEPA will simulate sampling soil and demonstrate through interview with the Evaluator.

ODH will simulate sampling water. They will talk through the process and receive a cubitainer of water to process per procedures.

Personal Protective Equipment (PPE) may be simulated at the discretion of the Controller in consultation with the Evaluator. Donning and doffing of PPE may be demonstrated by one member of the OEPA RAT team. Gloves will be demonstrated by all Sample Team members who are required to wear gloves.

Samples will be processed by the Sample Screening Point. However, they will not be transported to the ODH Lab.

4.b.1 will only be demonstrated on April 18, 2019.

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**Criterion 4.c.1** The laboratory is capable of performing required radiological analyses to support protective action decisions.

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**Locations** ODH Laboratory

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<b>Extent of Play</b>	The ODH Laboratory will be demonstrated out-of-sequence on Tuesday, April 9, 2019 at 9:00 am. The lab is located in Reynoldsburg, Ohio.
<b>4.c.1</b>	The ODH Laboratory will demonstrate receipt of simulated samples, but will perform no sample analysis. The lab will demonstrate sample preparation. However, the remainder of the demonstration will be by interview with the Evaluator.  4.c.1 will only be demonstrated on April 9, 2019.

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## Evaluation Area 5 – Emergency Notification and Public Information

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<b>Criterion 5.a.1</b>	Activities associated with primary alerting and notification of the public are completed in a timely manner following the initial decision by authorized off-site 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.  Identification of the state or local government organization and the official with the authority for providing the alert signal and instructional message  Identification of the commercial nuclear power plant and a statement that an emergency situation exists at the plant  Reference to REP-specific emergency information (e.g., brochures and information in telephone books) for use by the general public during an emergency  A closing statement asking the affected and potentially affected population to stay tuned for additional information.
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<b>Locations</b>	ODNR Parks & Watercraft
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<b>Extent of Play 5.a.1</b>	The State will simulate notification of the public on Lake Erie (within the 10-mile EPZ) through the USCG, supported by Ohio Department of Natural Resources (ODNR). An out-of-sequence interview will be conducted with ODNR at 9:00 AM on Monday, April 15, 2019, at the Sandusky Station.
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All other initial notification of the public is the responsibility of the counties.

5.a.1 will only be demonstrated on April 15, 2019.

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<b>Criterion 5.a.2</b>	[RESERVED]
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**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.

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**Extent of Play 5.a.3** N/A – This is a county function.

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**Criterion 5.a.4** Activities associated with FEMA-approved exception areas (where applicable) are completed within 45 minutes of the initial decision by authorized offsite emergency officials to notify the public of an emergency situation.

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**Extent of Play 5.a.4** N/A – The State of Ohio has no FEMA-approved Exception Areas at this time.

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**Criterion 5.b.1** OROs provide accurate subsequent emergency information and instructions to the public and the news media in a timely manner.

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**Locations** Executive Room, SEOC JIC, DBNPS JIC

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**Extent of Play 5.b.1** The Ohio EMA PIO and a representative from ODH will be present at the DBNPS JIC to address protective actions being implemented and the activities taking place at the state and county levels. Public information representatives from Ohio EMA will be present in the SEOC at the State JIC to communicate with the DBNPS JIC.

A public inquiry hotline will be established and demonstrated in the State JIC. Trends will be identified and responded to, as needed. Public inquiry calls will be made from the Sim Cell.

Social media will not be evaluated.

The State JIC will be operable on Day 2 and will provide advisories to the public as released through the IZRRAG.

No media briefings will be held on Day 2.

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## Evaluation Area 6 – Support Operation/Facilities

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**Criterion 6.a.1** The reception center has appropriate space, adequate resources, and trained personnel to provide monitoring, decontamination, and registration of evacuees and/or emergency workers.

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**Extent of Play**  
**6.a.1** N/A – This is a county function.

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**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.

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**Extent of Play**  
**6.b.1** N/A – This is a county function.

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**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.

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**Extent of Play**  
**6.c.1** N/A – This is a county function.

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**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.

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**Extent of Play**  
**6.d.1** N/A – This is a county function.

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### Evaluation Locations

**ODH  
Laboratory**

Address	ODH Laboratory 8995 East Main Street, Building 22 Reynoldsburg, OH 43068
Contact	Cheryl Chubb
Phone	614-644-2727
Cell Phone	
Date / Time	<b>April 9, 2019</b> – 9:00 am

**Field  
Monitoring  
Teams**

Address	Fremont Airport 365 OH-53 Fremont, OH 43420
Contact	Rob Stone
Phone	419-332-8037
Cell Phone	614-980-9525
Date	<b>April 10, 2019</b> <ul style="list-style-type: none"><li>• RIM/C ~ 5:30 am</li><li>• Airport ~ 9:00 am</li></ul>

**ODNR –  
Division of  
Parks &  
Watercraft**

Address	ODNR Division of Parks and Watercraft 1407 Cleveland Road W Sandusky, OH 44870
Contact	Ed Filppi
Phone	419-621-1302
Cell Phone	440-622-4751
Date and Time	<b>April 15, 2019</b> – 9:00 am

**Initial Warning  
Point**

Address	Ohio Emergency Management Agency 2855 West Dublin-Granville Road Columbus, Ohio 43235
Contact	Chris Salz
Phone	614-799-3675
Cell Phone	614-398-8811
Date / Time	<b>April 16, 2019</b> – 8:00am

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Final After Action Report/Improvement Plan

Davis-Besse Nuclear Power Station

**State  
Emergency  
Operations  
Center**

Address	Ohio Emergency Management Agency 2855 West Dublin-Granville Road Columbus, Ohio 43235
Contact	Chris Salz
Phone	614-799-3675
Cell Phone	614-398-8811
Date / Time	<b>April 16, 2019</b> – 8:00 am <b>April 17, 2019</b> – 7:00 am (IZRRAG)

**Assessment  
Room**

Address	Ohio Emergency Management Agency 2855 West Dublin-Granville Road Columbus, Ohio 43235
Contact	Chris Salz
Phone	614-799-3675
Cell Phone	614-398-8811
Date / Time	<b>April 16, 2019</b> – 8:00 am

**Dose  
Assessment  
Room**

Address	Ohio Emergency Management Agency 2855 West Dublin-Granville Road Columbus, Ohio 43235
Contact	Chris Salz
Phone	614-799-3675
Cell Phone	614-398-8811
Date / Time	<b>April 16, 2019</b> – 8:00 am <b>April 17, 2019</b> – 8:00 am

**Executive  
Room**

Address	Ohio Emergency Management Agency 2855 West Dublin-Granville Road Columbus, Ohio 43235
Contact	Chris Salz
Phone	614-799-3675
Cell Phone	614-398-8811
Date / Time	<b>April 16, 2019</b> – 8:00 am <b>April 17, 2019</b> – 8:00 am

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Final After Action Report/Improvement Plan

Davis-Besse Nuclear Power Station

**State Joint  
Information  
Center**

Address	Ohio Emergency Management Agency 2855 West Dublin-Granville Road Columbus, Ohio 43235
Contact	Chris Salz
Phone	614-799-3675
Cell Phone	614-398-8811
Date / Time	<b>April 16, 2019</b> – 8:00 am <b>April 17, 2019</b> – 8:00 am

**Debris  
Management  
Tabletop**

Address	Ohio Emergency Management Agency 2855 West Dublin-Granville Road Columbus, Ohio 43235
Contact	Chris Salz
Phone	614-799-3675
Cell Phone	614-398-8811
Date / Time	<b>April 17, 2019</b> – 1:00 pm

**Recovery/Long  
Term Housing  
Tabletop**

Address	Ohio Emergency Management Agency 2855 West Dublin-Granville Road Columbus, Ohio 43235
Contact	Chris Salz
Phone	614-799-3675
Cell Phone	614-398-8811
Date / Time	<b>April 17, 2019</b> – 1:00 pm

**DBNPS Joint  
Information  
Center**

Address	Edison Plaza 300 Madison Avenue Toledo, Ohio 43604
Contact	Kelli Blackwell
Phone	419-249-5176
Cell Phone	614-715-6647
Date	<b>April 16, 2019</b> – 9:00 am

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Davis-Besse Nuclear Power Station

**DBNPS EOF**

Address	First Energy Lindsey Service Station 1240 South Main Street Lindsey, Ohio 43442
Contact	Ed Filppi
Phone	419-333-4519
Cell Phone	440-622-4751
Date	<b>April 16, 2019</b>

**Ottawa County  
EOC**

Address	315 Madison Street Port Clinton, OH 43452
Contact	Bart Ray
Phone	419-734-6900
Cell Phone	614-285-8669
Date	<b>April 16, 2019</b>

**Field Team  
Center**

Address	Fremont Airport 365 OH-53 Fremont, OH 43420
Contact	Cheryl Chubb
Phone	419-332-8037
Cell Phone	225-278-6200
Date	<b>April 18, 2019</b> <ul style="list-style-type: none"><li>• Sample Screening Setup – 9:00 am</li><li>• Field Team Center – 10:00 am</li></ul>



**DAVIS-BESSE NUCLEAR POWER STATION  
RADIOLOGICAL EMERGENCY RESPONSE  
FULL PARTICIPATION  
PLUME AND INGESTION PATHWAY EXERCISE  
2019**



**OTTAWA COUNTY, OHIO  
EXTENT-OF-PLAY AGREEMENT**

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## OTTAWA COUNTY 2019 RADIOLOGICAL PREPAREDNESS EXERCISE EXTENT OF PLAY AGREEMENT

Criteria that can be re-demonstrated immediately for credit, at the decision of the evaluator, include the following: 1.e.1, 3.a.1, 3.b.1, 3.c.1, 3.c.2, 3.d.1, 4.a.3, 4.b.1, 4.c.1, 5.a.3, 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 Chairperson of the Regional Assistance Committee, include the following: 2.a.1, 2.b.1, 2.b.2, 3.d.2, 5.a.1, and 5.b.1.

All demonstration activities will be conducted in accordance with the FEMA RPM except as noted in this agreement.

### EVALUATION AREA 1 – EMERGENCY OPERATIONS MANAGEMENT

#### ***Sub-Element 1.a - Mobilization***

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

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

#### Extent of Play:

All agencies identified in the Ottawa County Radiological Emergency Response Plan (RERP) will be alerted as per established procedures. The primary means of notification from Davis-Besse Nuclear Power Station is a passcode protected, dedicated conference line; therefore, a verification call will not be performed. Appropriate personnel shall be mobilized in accordance with the RERP to staff emergency facilities. The Sheriff's Dispatcher and Ottawa County EMA personnel will notify the emergency response agencies/individuals. Individuals/agencies to be notified will vary according to the level of emergency. Agencies/individuals will be contacted by radio, pager or telephone and will verify the accurate receipt of the notification message by either reading it back or calling the Sheriff's Dispatch Center (or EOC, if activated) depending upon how the individual was notified. Following verification, the designated individual will notify appropriate personnel within the agency by using normal internal notification guidelines. Personnel will be informed of the Plant's status so that each agency with response roles at specific levels in the emergency can take appropriate actions as specified in the plan. Individual agencies rely on telephone and/or radio to contact their personnel according to a predetermined priority call list.

### Criterion 1.a.1 (Cont.)

The County EMA Director shall be responsible for EOC activation and operation. The EOC will not normally be activated for an UNUSUAL EVENT. It may be activated for an ALERT at the discretion of the EMA Director. The EOC staff will be fully mobilized at a SITE AREA EMERGENCY or GENERAL EMERGENCY.

The following field activities/facilities will be driven by Controller injects and demonstrated out of sequence:

#### Backup Route Alerting

- ◆ Harris-Elmore Fire Department  
Monday, April 15, 2019 – 1830 hours
- ◆ Carroll Township Fire Department  
Tuesday, April 16, 2019 – 1830 hours

#### Traffic/Access Control

- ◆ Ottawa County Engineer  
Tuesday, April 16, 2019 – 0900 hours

#### Schools

- ◆ Danbury Local Schools  
Tuesday, April 16, 2019 – 1300 hours
- ◆ Benton-Carroll-Salem Schools  
Wednesday, April 17, 2019 – 1300 hours

#### Reception Center (Observed. -Not Evaluated)

- ◆ Sandusky High School  
Tuesday, April 16, 2019 – 1730 hours

#### Care Center (Observed. Not Evaluated)

- ◆ Perkins High School  
Tuesday, April 16, 2019 – 1730 hours

### Criterion 1.a.1 (Cont.)

Contaminated  
Injured

- ◆ Mid-County EMS  
Wednesday, April 17, 2019 – 0730 hours
- ◆ Magruder Hospital  
Wednesday, April 17, 2019 – 0900 hours

### ***Sub-Element 1.b – Facilities***

This Sub-element 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:

Not selected. Baseline established in 2005.

### ***Sub-Element 1.c - Direction and Control***

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

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

Extent of Play:

Direction and Control will be demonstrated by appropriate participating agencies and facilities in accordance with the County RERP and SOGs.

### ***Sub-Element 1.d – Communications Equipment***

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

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

**Extent of Play:**

Ottawa County will participate in a State of Ohio initiated MARCS radio check at 0745 on Tuesday, April 16, 2019.

All communications equipment will be demonstrated at all demonstration locations. Commercial telephone is used as the primary means of communications between the Utility, Local, County, State and Federal agencies. The initial notification call informing County officials of an emergency at DBNPS is made on a passcode protected, dedicated conference line that connects Davis-Besse, State of Ohio, Ottawa County and Lucas County. Upon activation of the Davis-Besse Emergency Operations Facility (EOF), a commercial conference line will connect the DBNPS EOF, the Ottawa County EOC, Lucas County EOC and the Ohio EOC. This, in turn, will be supported by a facsimile machine system to verify verbal communications, as well as plant status and radiological dose assessment updates. This system may remain open and operational until the incident is terminated by the appropriate authority.

In addition, a 3-way conference line will connect Ottawa and Lucas County Commissioners and the Governor's Representative and will be used to coordinate protective action decisions and activation of the siren system and EAS.

Once notification has been made and communication links are established, a telephone/radio network will be used to expedite agency communications.

Radio/backup communication will be available for demonstration by:

- ◆ Amateur Radio Emergency Service
- ◆ Fire/EMS Liaison
- ◆ Ohio Emergency Management Agency
- ◆ Ohio State Highway Patrol
- ◆ United States Coast Guard
- ◆ Ottawa County Schools' Liaison
- ◆ Ottawa County Sheriff's Dispatch

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

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

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

**Extent of Play:**

All equipment, displays, supplies, etc., at all demonstration locations will be demonstrated.

Sufficient quantities of direct-reading and permanent record dosimetry and dosimeter chargers are available for issuance to emergency workers. Dosimetry and KI have been pre-distributed to ORO's (see 3.a.1 and 3.b.1). Available supplies of KI will be within the expiration date indicated on KI bottles or blister packs.

Monitoring kits and Dosimetry are exchanged annually.

The Ohio Department of Health (ODH) (through local health departments) makes KI available to the general public by pre-distribution and by distribution at reception centers. EOC Liaisons for the Ohio Department of Transportation, Ottawa County Engineer and Ottawa County Sheriff will discuss equipment and supplies to support Traffic and Access Control.

## EVALUATION AREA 2 – PROTECTIVE ACTION DECISION MAKING

### ***Sub-Element 2.a – Emergency Worker Exposure Control***

This Sub-element is derived from NUREG-0654/ FEMA-REP-1, which requires that OROs have the capability to assess and control the radiation exposure received by emergency workers and have a decision chain in place, as specified in the ORO's plan/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 plan/procedures.

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**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 Ottawa County Radiological Officer (RO) will coordinate with dosimetry coordinators to monitor exposure of county emergency workers. Each emergency worker will wear assigned dosimetry devices\* at all times when performing personnel or equipment contamination monitoring and decontamination, when handling radioactive material, and whenever an individual is in the EPZ during a SITE AREA EMERGENCY or GENERAL EMERGENCY.

*\* Area Dosimetry will be utilized in the Ottawa County EOC.*

Individuals will be instructed to read their direct-reading dosimetry every thirty minutes or more frequently after the onset of a GENERAL EMERGENCY.

Should the scenario dictate a revised exposure limit, the message will be disseminated to dosimetry coordinators by the RO.

Advisories from the EOC to field personnel will be simulated due to out of sequence play.

The Ohio Department of Health recommends the use of KI.

Dosimetry packets and KI have been pre-distributed to emergency response organizations.



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

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

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

Extent of Play:

N/A - Ottawa County does not demonstrate this criterion; it relies on the State of Ohio and on the Davis-Besse Nuclear Power Station.

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

Extent of Play:

Protective action decisions (PADs) will be made in accordance with the RERP and SOGs. Ohio is a Home Rule State and the Ottawa County Commissioners are responsible for the recommendation and implementation of protective measures for the affected public and emergency workers in Ottawa County. They will reach their decisions by weighing information, data and protective action recommendations from the State, Utility, Federal and local sources. When a protective action has been recommended by either the Davis-Besse Nuclear Power Station (DBNPS) or the State of Ohio, the Ottawa County Commissioners will consult with the Ottawa County Executive Group and the Lucas County Commissioners to decide upon a coordinated protective action, the time when the

## **Criterion 2.b.2 (cont.)**

sirens will be activated, an Emergency Alert System (EAS) message and Special News Broadcasts (SNBs).

The decision to advise the general public to take KI will be based upon the recommendation of Ohio Department of Health (ODH).

The County will demonstrate the capability to communicate the contents of PADs with affected jurisdictions.

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

The Sub-element 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:**

A list of people with access/functional needs (mobility impaired, hearing impaired, etc.) is maintained by the Ottawa County Health Department, in coordination with the Ottawa County EMA, for use in an emergency.

A functional needs list shall be printed by the Health Department, however, due to confidentiality concerns, simulated lists will be provided to appropriate fire departments.

### ***Sub-Element 2.d - Radiological Assessment and Decision Making for the Ingestion Exposure Pathway***

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

### **Sub-Element 2.d (cont.)**

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 planning criteria. (NUREG-0654/ FEMA-REP-1, A.3; C.1, 4; D.4; J.9, 11)

Extent of Play:

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

### ***Sub-Element 2.e – Radiological Assessment and Decision Making Concerning Post-Plume Phase Relocation, Re-entry and Return***

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

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

Extent of Play:

Not selected. Will be demonstrated in October 2019.

## EVALUATION AREA 3 – PROTECTIVE ACTION IMPLEMENTATION

### ***Sub-Element 3.a – Implementation of Emergency Worker Exposure Control***

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

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

#### Extent of Play:

The Ottawa County Radiological Officer will coordinate with dosimetry coordinators to monitor exposure of county emergency workers. Each emergency worker will wear assigned dosimetry devices according to their SOG.

Individuals will be instructed to read their direct-reading dosimetry every thirty minutes or more frequently after the onset of a GENERAL EMERGENCY.

Should the scenario drive or State Assessment recommend a revised exposure limit, the message will be disseminated by the RO to field agencies.

Advisories from the EOC to field personnel will be simulated via controller inject due to out of sequence play.

Dosimetry packets have been pre-distributed to emergency response organizations.

Dosimetry Coordinators will provide a dosimetry briefing to emergency workers prior to the emergency workers beginning their mission.

Criterion 3.a.1 will be demonstrated by appropriate agencies/ personnel in conjunction with their RERP assignments, including the

### Criterion 3.a.1 (Cont.)

agencies/personnel responsible for issuing dosimetry and/or KI at the following locations (see page 25 for addresses):

- ◆ Carroll Township Fire Department
- ◆ Harris-Elmore Fire Department
- ◆ Benton-Carroll-Salem Schools
- ◆ Danbury Schools
- ◆ Magruder Hospital
- ◆ Mid-County EMS
- ◆ Ottawa County Radiological Officer
- ◆ Ottawa County Engineer
- ◆ Sandusky Fire Department (no KI)  
(Demonstrated. Not Evaluated)

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

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

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

#### Extent of Play:

Issuance of KI to institutionalized individuals is based upon the recommendation of the Ohio Department of Health and implemented at the County and local level. The Special Needs Communicator will notify institutional facilities, as needed, and recommend that the appropriate designee for each applicable facility administer KI to institutionalized persons. Actual administration is under the direction of the attending physician. **KI WILL NOT BE INGESTED.**

The Ohio Department of Health (ODH) (through local health departments) makes KI available to the general public by pre-distribution and by distribution at reception centers. The decision to advise the general public to take KI will be based upon the recommendation of ODH.

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

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

A list of people with access/functional needs (mobility impaired, hearing impaired, etc.) is maintained by the Ottawa County Health Department, in coordination with the Ottawa County EMA, for use in an emergency.

A functional needs list shall be printed by the Health Department. However, due to confidentiality concerns, simulated lists will be provided to appropriate fire departments. Actual lists will be made available to the Evaluator for inspection during the exercise to validate that the records are current, accurate and complete, but due to confidentiality concerns, will not be given to FEMA electronically or in hardcopy format to document the exercise.

**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:**

In accordance with the RERP and SOGs, the Ottawa County Schools' Liaison will report to the EOC to:

- 1) Provide notification to local school districts.
- 2) Advise school district superintendents on plant status and recommended response actions.
- 3) Simulate the coordinating of protective actions for schools.
- 4) Simulate the coordinating with local school districts to provide buses and volunteer drivers for the evacuation of the mobility impaired, transportation dependent populations and health care facilities.

### Criterion 3.c.2 (cont.)

The Schools' Liaison communicates with the Superintendents' offices. They, in turn, notify district personnel and coordinate district resources. Communications between the Schools' Liaison and the Superintendents' offices will be documented.

- ◆ Benton-Carroll-Salem Schools participants available for interview at the BCS Board of Education Office beginning at 1300 hours, Wednesday, April 17, 2019, include:

Superintendent, Building Principal,  
Transportation Supervisor / Dosimetry  
Coordinator, District Nurse and 1 bus  
driver.

- ◆ Danbury Local Schools participants available for interview at Danbury beginning at 1300 hours, Tuesday, April 16, 2019, include:

Superintendent, Transportation  
Supervisor/ Dosimetry Coordinator and 1  
Bus Driver

### ***Sub-Element 3.d – Implementation of Traffic and Access Control***

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

**Criteria 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:

In accordance with the RERP and SOGs, major traffic intersections are controlled by the Ottawa County Sheriff's Office with support from the Ohio State Highway Patrol, local police departments and the Ohio National Guard.

If assistance is required to perform traffic control, clearing roads or removing stalled vehicles, it is requested from the State through Ohio EMA.



### Criteria 3.d.1 (cont.)

Those pre-designated access control points necessary to control access to an affected area will be activated (SIMULATED).

Personnel from the Sheriff's Office, Ohio State Highway Patrol, local police departments, Ohio National Guard and ODNR supported by access control equipment from the County Engineer – Highway Garage and Ohio Department of Transportation ensure that unauthorized vehicles do not enter the evacuated areas.

Remaining Traffic Control and Access Control Points shall be demonstrated procedurally at the Ottawa County EOC by:

- ◆ Ottawa County Sheriff Liaison
  - ◆ Ottawa County Engineer Liaison
  - ◆ Ohio Department of Transportation Liaison
  - ◆ Ohio State Highway Patrol Liaison
- Ottawa County Engineer personnel available for interview beginning at 0900 hours at the County Highway Garage, Tuesday, April 16, 2019, include:
    - ◆ Garage Superintendent, Dosimetry Coordinator and 1 Driver

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

Extent of Play:

Ottawa County Sheriff's Office, Ottawa County Engineer's Office, Ohio State Highway Patrol and Ohio Department of Transportation Liaisons located in the Ottawa County EOC will demonstrate the capability to:

- ◆ Identify impediments to evacuation
- ◆ Implement appropriate actions to remove or otherwise deal with impediments.
- ◆ Coordinate with Public Information Liaison for public notification regarding rerouting.

Controller injects will identify impediment(s) that will impact evacuation routes necessitating re-routing traffic and drive further discussion. Actual resources will not be utilized.



***Sub-Element 3.e. – Implementation of Ingestion Pathway Decisions***

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

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

Extent of Play:

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

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

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

**Criterion 3.f.1:** Decisions regarding controlled re-entry 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.10.j; J.12; K5.b; M.1, 3)

Extent of Play:

Not selected. Will be demonstrated in October, 2019.

## EVALUATION AREA 4 – FIELD MEASUREMENT AND ANALYSIS

### ***Sub-Element 4.a – Plume Phase Field Measurement and Analyses***

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

**Criterion 4.a.1:** (Reserved)

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

Extent of Play:

N/A – Ottawa County relies on the State of Ohio and on the Davis-Besse Nuclear Power Station.

**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 – Ottawa County relies on the State of Ohio and on the Davis-Besse Nuclear Power Station.

### ***Sub-Element 4.b – Post Plume Phase Field Measurements and Sampling***

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to assess the actual or potential magnitude and locations of radiological hazards to determine the ingestion exposure pathway EPZ and to support relocation, reentry, and return decisions. This Sub-element focuses on collecting

### **Sub-Element 4.b (Cont.)**

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. (PART III; REP PROGRAM DEMONSTRATION GUIDANCE, REP Program Manual, Page III-51, October 2011)

**Criterion 4.b.1:** The field teams (2 or more) demonstrate the capability to make appropriate measurements and to collect appropriate samples (for example, 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 - Ottawa County relies on the State of Ohio.

### ***Sub-Element 4.c – Laboratory Operations***

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

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

Extent of Play:

N/A - Ottawa 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***

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

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

Siren activation will be simulated.

EAS messages will be prepared and provided to the LP 1 Station in accordance with the RERP and SOG. EAS Messages are transmitted electronically from the Ottawa County EOC to the LP-1 Station via telephone lines utilizing the SAGE ENDEC encoder. The Ottawa County ENDEC encoder provides a printout verifying that the message was sent.

The LP-1 ENDEC encoder provides a printout verifying receipt of the message. A copy of the verified message will be provided to the Evaluator. EAS messages will be recorded but not actually broadcast.

◆ WRVF 101.5 FM Radio  
Tuesday, May 2, 2017

**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:

Route Verification, which is performed at a Site Area Emergency, will be demonstrated by interview.

Backup Route Alerting will be demonstrated out-of-sequence. PA systems will be demonstrated with a test message at an agreed upon location.

- ◆ Harris-Elmore Fire Department  
Monday, April 15, 2019 – 1830  
hours
- ◆ Carroll Township Fire Department  
Tuesday, April 16, 2019 – 1830  
hours

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

Extent of Play:

N/A. Exception areas do not exist in Ottawa County.

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

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

## **Sub-Element 5.b (Cont.)**

**Criterion 5.b.1:** OROs provide accurate 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:**

EAS messages will be prepared and provided to the LP 1. EAS messages will be recorded but not broadcast.

#### **◆ WRVF 101.5 FM Radio**

In accordance with the RERP and SOGs, the JIC will be activated and staffed by PIOs from Ottawa County, Lucas County, the State, Federal Agencies and the Utility upon declaration of an ALERT. News Releases will be coordinated with all participating PIOs prior to release to the news media with briefings held jointly, as appropriate.

The Ottawa County PIO will maintain contact with the Public Information Assistant in the Ottawa County Emergency Operations Center (EOC) who will serve as the primary contact point for all public information related matters within the Ottawa County EOC.

Information from participating local or County agencies in the EOC will be coordinated with the Public Information Assistant. The Public Information Assistant will provide information to the PIO for development of a joint news statement with Lucas County and the State, if appropriate.

The Public Information Assistant will ensure that the Commissioners are aware of information being disseminated to the news media. The PIO will coordinate with the Public Information Assistant to receive Executive Group approval on news statements affecting Ottawa County prior to dissemination to the news media.

A public inquiry telephone will be used to allow public inquiry staff to demonstrate the capability to identify trends in rumors (e.g., frequently expressed false or misleading information). The public inquiry staff will demonstrate the capability to provide or obtain accurate information for callers or refer them to an appropriate source. Information from the hotline staff, including information that corrects false or inaccurate information when trends are noted, will be included as appropriate in emergency information provided to the public, media briefings and/or media releases.

Social Media will not be evaluated.

A media briefing will not be demonstrated in the Ottawa County EOC.

## EVALUATION AREA 6 – SUPPORT OPERATION/FACILITIES

### ***Sub-Element 6.a – Monitoring, Decontamination and Registration of Evacuees.***

This Sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to implement radiological monitoring and decontamination of evacuees, while minimizing contamination of the facility. OROs must also have the capability to identify and register evacuees at reception centers.

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

Extent of Play:

Observed. Not evaluated.

### ***Sub-Element 6.b – Monitoring and Decontamination of Emergency Workers and Their Equipment and Vehicles***

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

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

Extent of Play:

Not selected. Will be observed (not evaluated) in October 2019.

### ***Sub-Element 6.c – Temporary Care of Evacuees***

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

**Criterion 6.c.1:** Managers of congregate care facilities demonstrate that the centers have resources to provide services and accommodations consistent with American Red Cross planning guidelines. Managers demonstrate the procedures to assure that evacuees have been monitored for contamination and have been decontaminated as



### Criterion 6.c.1 (cont.)

appropriate prior to entering congregate care facilities.  
(NUREG- 0654/FEMA-REP-1, J.10.h; J.12)

Extent of Play:

Observed. Not evaluated.

### ***Sub-Element 6.d – Transportation and Treatment of Contaminated Injured Individuals***

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

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

Extent of Play:

Mid-County EMS will demonstrate assessment and transport of a contaminated, injured individual at Mid-County EMS, out of sequence, on Wednesday, April 17, 2019, beginning at 0730 hours.

The ORO will provide an individual who will simulate being an injured and contaminated member of a State Field Monitoring Team. Mid-County EMS will assess the patient for injuries and contamination. Once stabilized, the patient will be prepared for transport, loaded onto the squad and be transported to Magruder Hospital. Emergency lights and sirens will not be used.

Upon arrival at Magruder Hospital, care, custody and control of the patient will be transferred to the hospital Radiation Emergency Area (REA) Response Team. While in transit to the hospital, the EMS crew will communicate with the hospital regarding the patient's contamination status and medical condition and the estimated time of arrival at the hospital. The hand-off from the EMS crew to the

REA staff will be observed by both the Transport Evaluator and the Facility Evaluator. The Transport Evaluator will interview the EMS crew and appropriate Facility personnel regarding the crew's and vehicle's status and return to service.



**Criterion 6.d.1 (cont.)**

The hospital will demonstrate set-up of the REA and staff preparations for receipt of the patient. The patient will be treated / decontaminated by the REA Response Team in accordance with hospital plans and procedures. The Transport Evaluator may assist the Facility Evaluator during the Facility segment of the demonstration. The REA Response Team will demonstrate the appropriate use of PPE in accordance with hospital procedures. The Facility Evaluator will interview appropriate Facility personnel regarding the REA staff's and facility's status and return to normal operating conditions.

Attachment

**Field Activities**

Harris-Elmore Fire Department  
321 Rice Street  
Elmore, OH 43416  
419-862-3332

Ottawa County Engineer  
8247 W. State Route 163  
Oak Harbor, OH 43449  
419-734-6777

Carroll Township Fire Department  
11080 W. Toussaint East Road  
Oak Harbor, OH 43449  
419-898-9621

Benton-Carroll-Salem Schools  
11685 W. State Route 163 Oak  
Harbor, OH 43449  
419-898-6210

Mid-County EMS  
222 Washington Street  
Oak Harbor, OH 43449  
419-898-9366

Danbury Local Schools  
9451 East Harbor Road  
Lakeside-Marblehead, OH 43440  
419-798-5185

Magruder Hospital  
615 Fulton Street  
Port Clinton, OH 43452  
419-734-3131

Sandusky High School  
(Observed. Not Evaluated)  
2130 Hayes Avenue  
Sandusky, OH 44870  
419-984-1068

Perkins High School (Not Evaluated)  
3714 Campbell Street  
Sandusky, OH 44870  
419-625-1252

Attachment

**Termination of Exercise Play**

The Lead Controller in the Ottawa County EOC will coordinate the Emergency Phase Termination with the Ohio EOC, the DBNPS EOF, and the Lucas County EOC.

Field Locations / Out of Sequence Demonstrations will be terminated by the Lead Controller at each location. The termination will be based on the completion of the objectives.

Lead Controllers at any location can suspend activities for real world events.

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**DAVIS-BESSE NUCLEAR POWER STATION  
RADIOLOGICAL EMERGENCY RESPONSE  
FULL PARTICIPATION  
PLUME AND INGESTION PATHWAY EXERCISE  
2019**



**LUCAS COUNTY, OHIO  
EXTENT-OF-PLAY AGREEMENT**

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**LUCAS COUNTY**  
**2019 RADIOLOGICAL PREPAREDNESS EXERCISE**

**EXTENT OF PLAY AGREEMENT**

The EOC portion of the exercise will take place on April 16, 2019.

Criteria that can be re-demonstrated immediately for credit, by a decision of the evaluator, include the following: 1.e.1, 3.a.1, 3.b.1, 3.c.1, 3.c.2, 3.d.1, 4.a.3, 4.b.1, 4.c.1, 5.a.3, 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 Chairperson of the Regional Assistance Committee, include the following: 2.a.1, 2.b.1, 2.b.2, 3.d.2, 5.a.1, and 5.b.1.

**EVALUATION AREA 1 – EMERGENCY OPERATIONS MANAGEMENT**

***Sub-Element 1.a – Mobilization***

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

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

**Extent of Play:**

All participating agencies identified in the Lucas County Radiological Emergency Response Plan (RERP) will be alerted as per established procedures.

The primary means of notification from Davis-Besse Nuclear Power Station is a passcode protected dedicated conference phone line (commonly referred to as the “4 way phone”); therefore, a verification call will not be performed. If a back-up means of communication (commercial phone) is necessary, a verification call will be made.

Appropriate personnel shall be mobilized in accordance with the RERP to staff emergency facilities.

The Sheriff’s Dispatcher will notify the emergency response agencies/individuals. Agencies/individuals to be notified will vary according to the level of emergency. Following notification, the designated individual will notify appropriate personnel within the agency by using normal internal notification procedures. Personnel will be informed of the Plant’s status so that each agency with response roles at specific levels in the emergency can take appropriate actions as specified in the plan.

The County EMA Director shall be responsible for EOC activation and operation.

The EOC will not normally be activated for an UNUSUAL EVENT. It may be activated for an ALERT at the discretion of the EMA Director. The EOC staff will be fully mobilized at a SITE AREA EMERGENCY or GENERAL EMERGENCY.

The following field activities/facilities will be demonstrated out of sequence:

- Criterion 3.a.1 - Implementation of Emergency Worker Exposure Control
- Criterion 3.c.1 - Implementation of PADs for Schools/Special Populations
- Criterion 3.d.1 - Traffic/Access Control
- Criterion 6.a - Monitoring, Decontamination, Registration of Evacuees/Their Vehicles
- Criterion 6.c - Temporary Care of Evacuees

***Sub-Element 1.b – Facilities***

**Intent:** This sub-element 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:**

This was successfully demonstrated in 2015, therefore this criterion was not selected.

***Sub-Element 1.c - Direction and Control***

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

**Criterion 1.c.1:** Key personnel with leadership roles for the ORO provide direction and control to 0654/FEMA-REP-1, A.1.d; A.2.a; A.3; C.4, 6)

**Extent of Play:**

In accordance with the Lucas County RERP and SOPs, leadership personnel will demonstrate the ability to carry out the essential management functions of the response effort. This includes:  
Engaging in protective action decision-making and implementation

Keeping staff informed through periodic briefings and/or other means

Coordinating with other OROs

Ensuring completion of requirements and requests

Prioritizing resource tasking when faced with competing demands for finite resources

***Sub-Element 1.d – Communications Equipment***

**Intent:** This sub-element is derived from NUREG0654/FEMA-REP-1, which requires that OROs establish and operate reliable primary and back-up communication systems to ensure communications with key emergency personnel at locations such as contiguous governments within the EPZ, Federal emergency response organizations, the licensee and its facilities, EOCs, Incident Command Posts, and Field Monitoring Teams (FMTs).

**Criterion 1.d.1:** At least two communication systems are available, at least one operates properly, and



communication links are established and maintained with appropriate locations. Communications capabilities are managed in support of emergency operations. (NUREG-0654/FEMA-REP-1, F.1, 2)

**Extent of Play:**

Communications equipment will be demonstrated at all demonstration locations.

Commercial telephone is the primary means of communications between the Utility, Local, County, State and Federal agencies.

Demonstration of the initial notification call informing County officials of an emergency at DBNPS may come through the Sheriff's Dispatch Center on the Davis- passcode protected dedicated conference phone line, which connects the Davis-Besse Nuclear Power Plant EOF, the Lucas County Sheriff's Dispatch, Ohio State Highway Patrol, and Ottawa County Sheriff's EOC. This system may remain open and operational until the incident is terminated by the appropriate authority.

Once the Lucas County EOC is operational, the Davis-Besse commercial telephone line will be used by the Lucas County EOC rather than the Lucas County Sheriff's Dispatch.

A document received via fax machine will support verbal communications, as well as plant status and radiological dose assessment updates.

Demonstration will include a 3-way conference line connecting Ottawa and Lucas County Commissioners and the Governor's Representative and will be used to coordinate protective action recommendations, decisions, and activation of the siren system and EAS.

Radio/backup communication will be available for demonstration via interview as follows:

- Lucas County EMA will participate in a MARCS radio communications test prior to the beginning of the EOC demonstration.
- Lucas County Sheriff's Communications Liaison will discuss availability of radios and Buckeye State Sheriff's Association Communications Vehicle
- Amateur Radio Emergency Service (ARES) Liaison will discuss the availability of ARES volunteers and equipment

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

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

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

**Extent of Play:**

All equipment, displays, supplies, etc. will be demonstrated at all demonstration locations.

Sufficient quantities of direct-reading and permanent record dosimetry and dosimeter chargers have been predistributed to county agencies for issue to emergency workers.

Dosimetry and KI have been pre-distributed to OROs (see 3.a.1 and 3.b.1). Available supplies of KI will be within the expiration date indicated on KI bottles or blister packs.

Monitoring kits and Dosimetry are exchanged annually by the Ohio Emergency Management Agency Radiological Analyst.

The Ohio Department of Health (ODH) (through local health departments) makes KI available to the general public by pre- distribution and distribution at reception centers. KI distribution to the general public at Reception Centers will be demonstrated in 2019. Demonstration via interview of the KI inventory for the general public will occur in the Reception Center by Health Representatives. No pills will be consumed during the demonstration.

## EVALUATION AREA 2 – PROTECTIVE ACTION DECISION MAKING

### *Sub-Element 2.a – Emergency Worker Exposure Control*

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

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

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

#### **Extent of Play**

All advisories from the EOC to field personnel will be simulated due to out of sequence play.

The Lucas County Radiological Officer will demonstrate coordination with dosimetry coordinators to monitor exposure of county emergency workers.

Each emergency worker will wear assigned dosimetry devices at all times when performing personnel or equipment contamination monitoring and decontamination, when handling radioactive material, and whenever an individual is in the EPZ during a SITE AREA EMERGENCY or GENERAL EMERGENCY. This will be demonstrated during out of sequence evaluations.

All emergency workers assigned to the 10 Mile EPZ will be given a radiological briefing prior to deployment, including the out of sequence evaluations. During out of sequence evaluations, dosimetry coordinators will demonstrate via interview instructing emergency workers to read their direct-reading dosimetry every 30 minutes or more frequently after the onset of a GENERAL EMERGENCY.

Provisions to authorize radiation exposure in excess of administrative limits or PAGs will be

procedurally discussed with the RO at the conclusion of the emergency phase if the scenario does not drive this discussion earlier.

Should the scenario dictate a reduction factor for the emergency worker exposure limit, the reduction factor will be limited to emergency workers in the EPZ and the Radiological Officer will demonstrate via interview disseminating the reduction information to Dosimetry Coordinators.

The Ohio Department of Health is responsible for recommending the use of KI. The RO will implement ODH recommendations through coordination with the Dosimetry Coordinators.

Dosimetry packets containing KI have been pre-distributed to emergency response organizations. The decision to use KI will be driven by the scenario.

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

**Intent:** This sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to independently project integrated dose from projected or actual dose rates and compare these estimates to the PAGs. OROs must have the capability to choose, among a range of protective actions, those most appropriate in a given emergency. OROs base these choices on PAGs from their plans/procedures or EPA's *Manual of Protective Action Guides and Protective Actions for Nuclear Incidents* and other criteria, such as plant conditions, licensee PARs, coordination of PADs with other political jurisdictions (e.g., other affected OROs and incident command), availability of in-place shelter, weather conditions, and situations, to include HAB incidents, the threat posed by 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 on-site and off-site environmental conditions. (NUREG-0654/FEMA-REP-1, I.10 and Supplement 3).

**Extent of Play:**

Not Applicable - Lucas County does not demonstrate this criterion; it relies on the State of Ohio and on the Davis-Besse Nuclear Power Station.

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

**Extent of Play**

Ohio is a home rule state. In accordance with the Lucas County RERP and SOPs, the Lucas County Commissioners are responsible for Protective Action Decisions (PADs) affecting the public and emergency workers in Lucas County.

Lucas County Commissioners will demonstrate decision-making abilities by weighing information,

data, and protective action recommendations from the State, Utility, Federal, and local sources.

When a protective action has been recommended by either the Davis-Besse Nuclear Power Station (DBNPS) or the State of Ohio, the Lucas County Commissioners will demonstrate the ability to consult with the Lucas County Executive Group and the Ottawa County Commissioners to decide upon coordinated protective action decisions, the time when the sirens will be activated, and the time when an Emergency Alert System (EAS) message and Special News Broadcasts (SNBs) will be broadcast to the public.

If driven by the exercise scenario, Lucas County Commissioners will demonstrate the ability to advise the general public to take KI based upon the recommendation of ODH.

If driven by the exercise scenario, Lucas County Commissioners will demonstrate the capability to communicate the contents of current and updated PADs with affected jurisdictions. Should the scenario fail to drive a PAD, Lucas County will participate in a discussion to demonstrate this criterion.

***Sub-Element 2.c – Protective Action Decisions Consideration for the Protection of Persons with Access/Functional Needs***

**Intent:** This sub-element 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 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:**

There are no special facilities within the Lucas County Portion of the EPZ. The ability to make a decision to evacuate the mobility impaired or transportation dependent will be demonstrated in the EOC by the Fire Coordinator by interview.

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

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

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

**Criterion 2.d.1:** Radiological consequences for the ingestion pathway are assessed and appropriate

protective action decisions are made based on the ORO's planning criteria. (NUREG-0654/FEMA-REP-1, A.3; C.1, 4; D.4; J.9, 11).

**Extent of Play:**

Not applicable – Lucas County relies on the State of Ohio.

***Sub-Element 2.e – Radiological Assessment and Decision Making Concerning Post-Plume Phase Relocation, Re-entry, and Return***

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

**Criterion 2.e.1:** Timely post-plume relocation, re-entry, 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. (NUREG-0654/FEMA-REP-1, I.10; J.9; K.3.a; M.1)

***Extent of Play:***

This criterion will be demonstrated by the Lucas County Post Accident Operations Committee (PAOC) through table top discussion on **Wednesday, October 23, 2019**.

The initiating conditions/scenario will be provided prior to the start of the demonstration. They may be independent of the plume phase conditions. Discussions will be driven by Controller injects and State provided dose assessment data.

The PAOC consists of:

- Lucas County Commissioners
- Lucas County Emergency Management
- Lucas County Sheriff Office
- Lucas County Engineer Office
- Lucas County Radiological Officer
- Lucas County Health Department
- Lucas County Public Information and/or Liaison
- Ohio State University Extension Agent
- Fire/EMS Liaison
- Local Government Liaisons as Appropriate

**EVALUATION AREA 3 – PROTECTIVE ACTION IMPLEMENTATION**

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

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

provide KI for emergency workers, always applying the “as low as is reasonably achievable” 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:**

Dosimetry Coordinators do not report to the EOC but rather directly to their field positions. Therefore, the Lucas County Radiological Officer will demonstrate coordinating with Dosimetry Coordinators to monitor exposure of county emergency workers through a briefing to the EOC Operations Room pertaining to agencies having Dosimetry Coordinators. Advisories from the EOC to field personnel will be simulated due to out of sequence play.

Each emergency worker will wear assigned dosimetry devices at all times when performing personnel or equipment contamination monitoring and decontamination, when handling radioactive material, and whenever an individual is in the EPZ during a SITE AREA EMERGENCY or GENERAL EMERGENCY.

During out of sequence evaluations, Dosimetry Coordinators will give a radiological briefing to all appropriate personnel and demonstrate via interview instructing emergency workers to read their direct-reading dosimetry every 30 minutes or more frequently after the onset of a GENERAL EMERGENCY.

Should the scenario or State Assessment drive a revised exposure limit, the Radiological Officer will demonstrate disseminating the revised exposure limit information to Dosimetry Coordinators via a briefing to the EOC Operations Room for agencies that have Dosimetry Coordinators.

Dosimetry packets have been pre-distributed to emergency response organizations. Dosimetry Coordinators will demonstrate via interview providing a dosimetry briefing to emergency workers prior to the emergency workers beginning their mission.

Dosimetry Coordinator demonstrations via interview will be with these agencies as indicated:

Organization	Location	Date	Time
Oregon School District Transportation Dept	Bus Garage	April 15, 2019	0930
Lucas County Sheriff's Office	EOC	April 17, 2019	1400
Oregon Fire Department	Reception Center	April 17, 2019	1800-2000

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

**Intent:** This sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that



ORO's 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 ORO's 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 should a decision to recommend use of KI be 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:**

There are no specialized facilities or institutionalized populations within the Lucas County portion of the EPZ.

The Ohio Department of Health (ODH) (through local health departments) makes KI available to the general public by pre-distribution and by distribution at reception centers. The decision to advise the general public to take KI will be based upon the recommendation of ODH.

The Health Department will demonstrate via interview distribution of KI at the Reception Center.

KI will not be ingested as part of any demonstration.

Demonstration via interview will be with the following agencies as indicated:

Organization	Location	Date	Time
Toledo/Lucas County Health Department	Reception Center for General Public	April 17, 2019	1800-2000
Toledo/Lucas County Health Department	EOC for KI Inventory for General Public	April 16, 2019	0700-1500

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

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

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

**Extent of Play:**

There are no specialized facilities or institutionalized populations within the Lucas County portion of the EPZ.

A confidential list of people with access/functional needs (mobility impaired, hearing impaired,

etc.) is maintained by the Toledo/Lucas County Health Department. Jerusalem Township Trustees and Jerusalem Township Fire Chief also have a copy of the list. Lucas County EMA is provided with an abbreviated list with only the needs annotated. This abbreviated list enables the EOC to mobilize resources without compromising individual's privacy.

The EMA Operations Officer provides the abbreviated list to the EOC Fire and EMS Liaisons so that necessary resources can be staged and made available as directed by Jerusalem Township Fire. The abbreviated list will be made available to FEMA Evaluators for review and discussion.

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

**Extent of Play:**

Lucas County has no schools within the 10-mile EPZ. However, an Oregon City School District Representative will be available for an interview in the Lucas County EOC to describe their process for identifying and holding for parental pick-up those students who reside within the 10 mile EPZ.

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

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

**Criteria 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:**

Traffic and Access Control procedures will be demonstrated via interview at the Lucas County EOC on Wednesday, April 17 at 1400.

During the EOC exercise, Traffic and Access Control procedures will be demonstrated via interview by the Law Enforcement Coordinator and the Engineers Office Liaison.

A Lucas County Sheriff's Road Patrol Deputy will demonstrate via interview the ability to implement the traffic/access control point. After the Sheriff's Road Patrol Deputy receives his dosimetry briefing from the Lucas County Sheriff's Dosimetry Coordinator, a Controller inject will be communicated to the Dosimetry Coordinator to have a Deputy simulate reporting to a Traffic Control/Access Control Point. An appropriately-equipped patrol unit will also be available for review at the Lucas County EOC.

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

**Extent of Play:**

The Lucas County Sheriff's Office and the Lucas County Engineer's Office Liaison located in the EOC will demonstrate the capability to:



Identify impediments to evacuation

Implement appropriate actions to remove or otherwise respond to impediments.

A Controller inject will identify an impediment that will impact a major evacuation route and necessitate re-routing traffic and drive further discussion at the GE ECL.

Coordinate with the Public Information Liaison for public notification regarding rerouting.

Note activities on Log Form

Actual resources will not be used.

### ***Sub-Element 3.e. – Implementation of Ingestion Pathway Decisions***

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

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

**Extent of Play:** Not applicable – Lucas 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:** Not applicable – Lucas County relies on the State of Ohio

### ***Sub-Element 3.f – Implementation of Post-Plume Relocation, Re-entry, and Return Decisions***

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

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

**Extent of Play:**

This criterion will be demonstrated by the Lucas County Post Accident Operations Committee (PAOC) through table top discussion on **Wednesday, October 23, 2019.**

The initiating conditions/scenario will be provided prior to the start of the demonstration. They may be independent of the plume phase conditions. Discussions will be driven by Controller injects and State provided dose assessment data.

The PAOC consists of:

- Lucas County Commissioners
- Lucas County Emergency Management
- Lucas County Sheriff Office
- Lucas County Engineer Office
- Lucas County Radiological Officer
- Lucas County Health Department
- Lucas County Public Information and/or Liaison
- Ohio State University Extension Agent
- Fire/EMS Liaison
- Local Government Liaisons as Appropriate

## EVALUATION AREA 4 – FIELD MEASUREMENT AND ANALYSIS

### *Sub-Element 4.a – Plume Phase Field Measurement and Analyses*

**Intent:** This sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to deploy FMTs with the equipment, methods, and expertise necessary to determine the location of airborne radiation and particulate deposition on the ground from an airborne plume. In addition, NUREG-0654/FEMA-REP-1 indicates that OROs must have the capability to use FMT's 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:**

Not applicable - Lucas County relies on the State of Ohio and on the Davis-Besse Nuclear Power Station

**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:**

Not applicable – Lucas County relies on the State of Ohio and on the Davis-Besse Nuclear Power Station

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

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

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

**Extent of Play:**

Not applicable - Lucas County relies on the State of Ohio

***Sub-Element 4.c – Laboratory Operations***

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

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

**Extent of Play:**

Not applicable - Lucas 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:** This sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to provide prompt instructions to the public within the plume exposure pathway EPZ. Specific provisions addressed in this sub-element are derived from the *Guide for the Evaluation of Alert and Notification Systems for Nuclear Power Plants*, FEMA-REP-10 (November 1985).

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

**Extent of Play:**

Ottawa County is responsible for EAS and siren activation.

Lucas County Executive Group will coordinate with Ottawa County for the time of siren activations and EAS messages, as well as the contents of EAS messages and Special News Bulletins.

The Lucas County Executive Group will ensure that all elements of the EOC are aware of all EAS messages and Special News Bulletins issued to the public. EOC Liaisons will then disseminate the alert and notification information as appropriate to their chain of commands.

**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:**

This criterion was successfully demonstrated in September 2017.

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

**Extent of Play:**

This criterion is not applicable – there are no exception areas located in Lucas County.

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

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

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

**Extent of Play:**

In accordance with the RERP and SOP's, the JIC will be activated and staffed by Public Information Officers (PIOs) from Ottawa County, Lucas County, the State, Federal Agencies and the utility upon declaration of an ALERT. News statements will be coordinated with all participating PIOs with briefings held jointly, as appropriate.

Upon arrival at the JIC, the Lucas County PIO will establish and remain in contact with the Public Information Liaison in the Lucas County EOC who will serve as the primary contact point for all public information related matters within the Lucas County EOC.

The Public Information Liaison will ensure that the Commissioners are aware of information being

disseminated to the news media. The PIO will coordinate with the Public Information Liaison to receive Commissioner approval on news statements affecting Lucas County prior to dissemination to the news media.

A public inquiry telephone will be used to allow public inquiry staff to demonstrate the capability to identify trends in rumors (e.g., frequently expressed false or misleading information). The public inquiry staff will demonstrate the capability to provide or obtain accurate information for callers or refer them to an appropriate source. Information from the hotline staff, including information that corrects false or inaccurate information when trends are noted, will be included as appropriate in emergency information provided to the public, media briefings and/or media releases.

A media briefing will not be demonstrated in the Lucas County EOC. Media briefings are conducted/demonstrated at the JIC.

Media and social media monitoring will not be demonstrated in the Lucas County EOC.

## **EVALUATION AREA 6 – SUPPORT OPERATION/FACILITIES**

### ***Sub-Element 6.a: Monitoring and Decontamination, and Registration of Evacuees***

**Intent:** This sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have the capability to implement radiological monitoring and decontamination of evacuees, while minimizing contamination of the facility. OROs must also have the capability to identify and register evacuees at reception centers.

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

#### **Extent of Play:**

Lucas County has one Reception Center. Monitoring and decontamination of evacuees and their vehicles is provided at the Reception Center.

The demonstration will be performed at Clay High School on April 17, from 6:00 to 9:00pm.

Brown Kraft paper will be utilized.

The Dosimetry Coordinator will distribute dosimetry at the Reception Center.

The process of monitoring and decontamination of evacuees and their vehicles will be explained via interview by Oregon Fire personnel.

Oregon Fire personnel will demonstrate evacuee and vehicle monitoring techniques.

A total of 6 potentially contaminated individuals will be monitored by passing through a portal monitor. Contamination of the evacuee will be determined by controller inject.

Vehicle monitoring techniques will be demonstrated on 1 vehicle.

Evacuee and vehicle decontamination techniques will be explained via interview. Supplies will be set up as a demonstration aide but no actual decontamination will take place.

Initial registration of evacuees will take place. Evacuees who have completed monitoring and decontamination will be provided with documentation indicating that they and their vehicle have been monitored, cleared, and found to have no contamination or contamination below the trigger/action level.

For evacuees arriving at the Reception Center implementation of the KI decision will be demonstrated by a Health Department representative.

Contamination control and record-keeping procedures will be demonstrated.

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

**Intent:** This sub-element is derived from NUREG-0654/FEMA-REP-1, which requires that OROs have their 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:**

Not Selected. This criterion was successfully demonstrated in May of 2017.

**Sub-Element 6.c – Temporary Care of Evacuees**

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

**Criterion 6.c.1:** Managers of congregate care facilities demonstrate that the centers have resources to provide services and accommodations consistent with American Red Cross planning guidelines. Managers demonstrate the procedures to assure that evacuees have been monitored for contamination and have been decontaminated as appropriate prior to entering congregate care facilities (NUREG-0654/FEMA-REP-1, J.10.h; J.12)

**Extent of Play:**

Lucas County has one Congregate Care Center. The demonstration will be conducted by the Northwest Ohio Chapter of the American Red Cross at Clay High School on April 17 between 6:00 pm and 9:00 pm.

The set-up and operations will be explained.

A walk-through of the center will be conducted to determine, through observation and inquiries, that the services and accommodations are consistent with American Red Cross standards.

Registration of evacuees will be demonstrated.

Congregate Care Center staff will demonstrate the capability to ensure that evacuees have been monitored for contamination/decontamination as appropriate. This capability will be determined through an interview process.

If operations at the center are demonstrated, material that would be difficult or expensive to transport need not be physically available at the facility. However, availability of such items must be verified by providing the evaluator a list of sources with locations and estimates of quantities. A minimum of five cots and a registration area will be set up as a demonstration aide.

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

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

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

**Extent of Play:**

Deferred as noted below:

Organization	Location	Date	Time
Jerusalem Township Fire Department	St. Charles Hospital	October 2019	TBA



**Davis-Besse Nuclear Power Plant Graded Exercise  
Lucas County, Tuesday, April 16  
Assignments and Locations**

<b>EMERGENCY OPERATIONS CENTER</b>		
Address:	Lucas County Emergency Services Building 2144 Monroe Street Toledo, Ohio 43604	
Contact:	Patricia Moomey, EMA Director	
Telephone:	419-261-3733	
Action Location:	EOC, 1 <sup>st</sup> Floor	
Date:	Tuesday, April 16, 2019	
Time:	Upon exercise start	

<b>INITIAL NOTIFICATION COUNTY SHERIFF'S DISPATCH</b>		
Address:	Lucas County Emergency Services Building 2144 Monroe Street Toledo, Ohio 43604	
Contact:	Capt. Tricia White	
Telephone:	419-213-4735	
Action Location:	Lucas County Sheriff's Dispatch Center, 2 <sup>nd</sup> Floor	
Date:	Tuesday, April 16, 2019	
Time:	In-Sequence with scenario	

<b>JOINT INFORMATION CENTER (JIC)</b>		
Address:	Joint Information Center KeyBank (sic) Building 300 Madison Ave. Toledo, OH 43604	
Contact:	Bob Hovland	
Telephone:	419-206-0611	
Action Location:	6 <sup>th</sup> floor JIC	
Date:	Tuesday, April 16, 2019	
Time:	In-Sequence with scenario	

<b>IMPLEMENTATION OF KI DECISION FOR INSTITUTIONALIZED INDIVIDUALS AND THE GENERAL PUBLIC</b>		
Address:	Lucas County Emergency Services Building 2144 Monroe Street Toledo, Ohio 43604	
Contact:	Dan Baker	
Telephone:	419-213-4152	
Action Location:	EOC, 1 <sup>st</sup> Floor	
Date:	Tuesday, April 16, 2019	
Time:	In-Sequence with scenario	
Additional Info:	KI inventory for General Public	



**Davis-Besse Nuclear Power Plant Graded Exercise  
Lucas County, Wednesday, April 17  
Assignments and Locations**

<b>PROTECTIVE ACTION IMPLEMENTATION - SCHOOL</b>		
Address:	Oregon City Schools Transportation Department 5721 Seaman Road Oregon, Ohio 43616	
Contact:	Hannah Schwartz	
Telephone:	419-213-6504	
Action Location:	Oregon Bus Garage	
Date:	Wednesday, April 17, 2019	
Time:	0930 Hours	

<b>TRAFFIC &amp; ACCESS CONTROL / PROTECTIVE ACTION IMPLEMENTATION – EMERGENCY WORKERS</b>		
Address:	Lucas County Emergency Services Building 2144 Monroe Street Toledo, Ohio 43604	
Contact:	On-Duty officer	
Telephone:	419-693-7302 or 419-213-4949	
Action Location:	Lucas County EOC	
Date:	Wednesday, April 17, 2019	
Time:	1400 Hours	

<b>TEMPORARY CARE OF EVACUEES</b>		
Address:	Clay High School 5665 Seaman Road Oregon, Ohio 43616	
Contact:	Doug Fee	
Telephone:	419-277-8087	
Action Location:	Clay High School Gymnasium and Lobby	
Date:	Wednesday, April 17, 2019	
Time:	1800 Hours	

UNCLASSIFIED  
Radiological Emergency Preparedness (REP) Program

Final After Action Report/Improvement Plan

Davis-Besse Nuclear Power Station

<b>MONITORING / DECONTAMINATION / REGISTRATION OF EVACUEES / PROTECTIVE ACTION IMPLEMENTATION – EMERGENCY WORKER</b>		
Address:	Clay High School 5665 Seaman Road Oregon, Ohio 43616	
Contact:	Mark Mullins, Chief of Training	
Telephone:	419-350-0420	
Action Location:	Clay High School Gymnasium and Lobby	
Date:	Wednesday, April 17, 2019	
Time:	1800 Hours	

<b>IMPLEMENTATION OF KI DECISION FOR INSTITUTIONALIZED INDIVIDUALS AND THE GENERAL PUBLIC</b>		
Address:	Clay High School 5665 Seaman Road Oregon, Ohio 43616	
Contact:	Dan Baker	
Telephone:	419-213-4152	
Action Location:	Clay High School Gymnasium and Lobby	
Date:	Wednesday, April 17, 2019	
Time:	1800 hours	
Additional Info:	KI distribution for General Public at Reception Center	

## APPENDIX F: Onsite/Offsite Scenario Timeline

### Onsite Evaluated Exercise Timeline Overview

0745 Start of Evaluated Exercise.

0755 Tornado reported in the Owner Controlled Area, traveling east near Cooling Tower (not in the Protected Area).

0757 Control Room Simulator receives indication of Lockout of Startup Transformer X02.

0757 BWST level indicator failure (1525C-BWST3) due to tornado damage.

0758 Security notifies Control Room Simulator that tornado entered PA, traveled near Startup Transformer X02, across site, then exited into marsh. Visible damage (arcing, sparking, smoke) noted to X02.

NWS issues Tornado Warning, Ottawa County sounds sirens.

0812 Shift Manager/Emergency Director declares an **ALERT** on **EAL SA9.1**.

0820 Security reports substantial amount of debris in the Circ. Water Canal.

0900 RCP 1-2 High Vibration alarms. Crew begins downpower to 70% to remove RCP 1-2 from service.

0915 Reactor power is lowered to 70%. Crew removes RCP 1-2 from service.

0930 CT radiation increases to 5 R/hr due to fuel damage from RCP debris.

RE1998 (Failed Fuel Detector) alarms.

0950 RCS develops 1,500 gpm leak (**Loss of RCS FPB, 1<sup>st</sup> FPB**). Crew trips the reactor.

0951 CS 1530, Auto Control Valve #1 (throttle valve for Containment Spray) fails to open following the SFAS SA2 initiation.

1010 CT radiation 18 R/hr (> 15 R/hr, **Loss of RCS FPB**)

#### **ALERT – EAL SA9.1:**

“The occurrence of **ANY** Table S-5 Hazardous Event

#### **AND EITHER:**

- Event has caused indications of degraded performance in at least one train of a **SAFETY SYSTEM** required for the current operating mode
- The event has caused **VISIBLE DAMAGE** to a **SAFETY SYSTEM** component or structure required for the current operating mode”

#### **SAE – EAL FS1:**

“Loss or Potential Loss of **ANY** two barriers (Table F-1)”

- Loss of the RCS FPB (1<sup>st</sup> FPB loss):
  - Loss based on RCS or SG Tube Leakage: Table F-1, RCS Loss A.1
- Loss of FC FPB (2<sup>nd</sup> FPB):
  - Loss based on CT Radiation / RCS Activity: Table F-1, FC Loss C.1

#### **GE – EAL FG1:**

“*Loss of ANY two barriers AND Loss or Potential Loss of third barrier (Table F-1)*”

- Loss of the CT FPB (3<sup>rd</sup> FPB loss):
  - Loss based on CT Integrity or Bypass: Table F-1, CT Loss D.1

- 1018 Rapid increase in CT radiation to 3,500 R/hr (**Loss of FC FPB**. This is **2<sup>nd</sup> FPB Lost**)
- 1033 Emergency Director declares a **SITE AREA EMERGENCY** on **EAL FS1**.
- 1147 Penetration #59 in MPR #3 develops a leak from CT (CT Bypass). Local RE's increase, fire alarms, CT pressure decreases.
- 1147 Control Room receives UNIT VENT RAD HI alarm. (**Loss of CT FPB**. This is **3<sup>rd</sup> FPB Lost**).
- 1202 Emergency Director declares **GENERAL EMERGENCY** (GE) under **EAL FG1**.
- 1223 Projected offsite doses exceed PAG (>1,000 mRem TEDE or >5,000 mRem CDE) at Site Boundary.  
However current PARs unaffected
- 1250 Repairs completed to Penetration #59.
- 1255 Station Vent radiation monitors begin trending downward.
- 1305 Station Vent radiation monitors return to normal values. Release from the Station Vent is terminated.
- 1330 End of Evaluated Exercise.

## Offsite Evaluated Exercise Timeline

Approximate Time	Message/Problem Statement	State Expected Actions	Ottawa County Expected Actions	Lucas County Expected Actions
7:45	State backup communication test.	Watch Desk performs MARCs radio check with Lucas and Ottawa Counties.	Ottawa County replies to radio check.	Lucas County replies to radio check.
7:45	<b>StartEx</b>			
7:55	Tornado spotted in Owner Controller Area.			
7:57	Lockout of Startup Transformer X02 due to damage from the tornado.			
7:57	BWST level indicator failure due to tornado damage.			
7:58	Security notifies Control Room Simulator that tornado entered Protected Area, traveled near Startup Transformer X02, across site, then exited into marsh. Visible damage (arcing, sparking, smoke) noted to X02.			
8:12	<b>DBNPS declares an Alert based on EAL SA9.1.</b>			
8:20	Security reports substantial amount of debris in the Circulating Water Canal.			
8:27	<b>Offsite response agencies notified of ALERT declaration.</b>	Complete actions under UNUSUAL EVENT.	Complete actions under UNUSUAL EVENT.	Complete actions under UNUSUAL EVENT.
		Dispatch notifies the Radiological Branch. Rad Branch makes notifications and activates Dose Assessment.	Activate County EOC, as warranted	Notify key response personnel.
		Watch Desk makes assigned notifications.	Establish EOC security	Activate County EOC as warranted.
		Executive Room (ER), Assessment, Dose Assessment and JIC are activated.	Establish communications with Lucas County.	Establish EOC security.
		ER will decide if the SEOC will activate.	Activate and staff EOC communications center.	Establish communications with Ottawa County.
		FMTs are put on stand-by or dispatched to staging area.	Mobilize bus drivers as warranted	If warranted close parklands, notify public and close Magee Marsh Wildlife Area and the Ottawa National Wildlife Refuge.
		Dose Assessment begins to monitor plant conditions and run dose projections.	Mobilize Fire/EMS departments as warranted.	Consider restricting boating traffic in Subarea 12.

Approximate Time	Message/Problem Statement	State Expected Actions	Ottawa County Expected Actions	Lucas County Expected Actions
8:27	Offsite response agencies notified of ALERT declaration.	ER discusses clearing Lake Erie and closing Federal and State parklands. Assessment contacts USCG Sector Detroit to broadcast message to mariners. ODNR Watercraft is dispatched to assist.	Consider closing Magee Marsh Wildlife Area and the Ottawa National Wildlife Refuge.	If warranted, restrict boating traffic in Subarea 12.
		FMTs are mobilized and will move to the Fremont Airport to stage.	If warranted, notify the public and close Magee Marsh Wildlife Area and the Ottawa National Wildlife Refuge.	Consider relocation of Jerusalem Elementary.
		PIO dispatched to the Utility JIC.	Consider restricting boating traffic in Subarea 12.	Provide news statements and information to public.
		News release is provided to public from Ohio EMA.	If warranted, restrict boating traffic in Subarea 12.	Dispatch PIO to JIC.
			Provide news statements and information to the public.	Consider sending Liaison to Emergency Operations Facility.
			Dispatch PIO to JIC; Dispatch liaison to DBNPS EOF, if warranted.	Dispatch radiological monitoring teams.
			Dispatch radiological monitoring teams.	Activate assessment room at State EOC.
			Activate assessment room at State EOC.	Buckeye State Sheriff Association Mobile Communication Unit 8 (BSSA 8) is placed on stand-by at the Jerusalem Twp. Substation.
			Dispatch mobile communications van.	
9:00	RCP 1-2 High Vibration alarms. Crew begins downpower to 70% to remove RCP 1-2 from service.			
9:15	Reactor power is lowered to 70%. Crew removes RCP 1-2 from service.			
9:30	CT radiation increases to 5 R/hr due to fuel damage from RCP debris.			
9:50	Reactor coolant system (RCS) developed 1,500 gpm leak (Loss of RCS Fission Product Barrier (FPB), 1st FPB). Crew trips reactor. Due to pressure transient with the trip, additional fuel clad damage occurs. Containment levels increase. Still only classified as an Alert.			
9:51	CS 1530, Auto Control Valve #1 (throttle valve for Containment Spray) fails open following the SFAS SA2 initiation.			
10:10	CT radiation is 18 R/hr (>15 R/hr, Loss of RCS FPB)			
10:18	Rapid increase in CT radiation to 3500 R/hr (Loss of Fuel Clad (FC) FPB, 2nd FPB).			

Approximate Time	Message/Problem Statement	State Expected Actions	Ottawa County Expected Actions	Lucas County Expected Actions
10:33	<b>DBNPS declares a Site Area Emergency based on EAL FS1.</b>			
10:48	<b>Offsite response agencies notified of Site Area Emergency declaration.</b>	Complete actions under ALERT.	Complete actions under ALERT.	Complete actions under Alert.
		If not already completed, State EOC is activated.	Notify all EOC staff and response agencies.	Declare a local "State of Emergency" in Lucas County.
		Additional OROs, contiguous governments are notified by Watch	Activate the EOC; fully mobilize EOC staff.	Notify all EOC staff response agencies.
		Governor considers and declares a state of emergency.	Initiate restriction of boating traffic in Subarea 12, if not already done.	Activate the EOC; Fully Mobilize EOC staff.
		Ag advisory issued placing livestock and poultry within 10-mile radius on stored feed and protected water.	Ensure relocation of EPZ schools.	Close State parks/wildlife areas, and Federal wildlife refuge, if not already done.
		Dose Assessment continues to monitor plant conditions and run dose projections.	Provide transportation for students when relocation is recommended.	Initiate restriction of boating traffic in Subarea 12, if not already done.
		PAR issued by State to monitor EAS.	Provide protective action decisions, if necessary.	Consider activating traffic and access control points.
		FMTs begin traversing area where a plume could potentially be based on met data.	Notify appropriate facilities of protective action decisions, if necessary.	Notify special needs and transportation dependent individuals.
		New releases provided to public from State JIC.	Notify agency and organization personnel of protective action decisions.	Conduct Route Verification.
		Public Inquiry begins taking calls from the public.	Notify appropriate facilities of the protective action decisions.	Staff reception center and evacuee contamination monitoring station.
		FAA is requested to restrict air space 10 miles 10,000 feet from plant.	Activate sirens and EAS/NOAA for public alert and notification.	Staff emergency worker contamination monitoring station.
		Railroads are requested to restrict traffic 25 miles from plant.	Close wildlife areas, and federal wildlife refuge, if not already done.	Mobilize bus drivers.
		USDOE assistance is requested.	Consider activating traffic and access control points.	Staff primary Care Center.
		50-mile IPZ counties are notified.	Ensure the public has been notified through route verification.	Relocate Jerusalem Elementary School, if necessary.
		Radiological emergency information made available to farmers, food processors, and distributors through the local OSU Extension.	Notify industries located within the 10-mile EPZ.	Provide precautionary action measure recommendations, if necessary.

Approximate Time	Message/Problem Statement	State Expected Actions	Ottawa County Expected Actions	Lucas County Expected Actions
10:48	Offsite response agencies notified of Site Area Emergency declaration.		Maintain evacuation routes.	Notify agency and organization personnel of protective action decisions, if necessary.
			Establish background radiation levels.	Maintain evacuation routes.
			Consider declaring a “State of Emergency” in Ottawa County and consider requesting the Governor declare a “State of Emergency”.	Establish background radiation levels.
			Recommend sheltering livestock and poultry within ten miles and placing them on stored feed and ground water and assess need to extend distance.	Recommend placing livestock and poultry within 10 miles on stored feed and ground water and assess need to extend distance.
			Staff emergency worker monitoring and decontamination monitoring facilities.	Provide news statements and public information.
11:47	Penetration #59 in MPR #3 develops a leak from Containment (CT) (CT Bypass). Local RE's increase, fire alarms, CT pressure decreases.			
11:47	Control Room receives UNIT VENT RAD HI alarm (Loss of CT FPB, 3rd FPB).			
12:02	DBNPS declares General Emergency based on EAL FG1. DBNPS issues PAR to evacuate 1, 2, and 12.			
12:17	Offsite response agencies notified of General Emergency declaration.	SEOC representatives are advised of the escalation to a General Emergency.	Complete actions under SITE AREA EMERGENCY.	Provide protective action decisions to the public.
		Additional notifications to be performed by Assessment.	Provide protective action decisions.	Conduct backup route alerting, if necessary.
		Contiguous governments are kept advised.	Activate sirens and EAS/NOAA for public alert and notification.	Activate primary care center.
		Dose Assessment continues to monitor plant conditions and run dose projections.	Conduct backup route alerting, if necessary.	Activate emergency worker contamination monitoring station.
		PAR issued by State to evacuate 2-mile 360, 5-mile downwind. Remainder of EPZ stay tuned to EAS.	Activate traffic/access control points.	Activate traffic/access.
		State issues PAR for public, institutionalized, and emergency workers within the evacuated areas ingest KI.	Notify agency and organization personnel of protective action decisions.	Notify agency and organization personnel of protective action decisions.



Approximate Time	Message/Problem Statement	State Expected Actions	Ottawa County Expected Actions	Lucas County Expected Actions
12:17	Offsite response agencies notified of General Emergency declaration.	FMTs begin taking air samples in the plume. Samples are screened and sent to the lab.	Notify appropriate facilities of the protective action decisions.	Activate reception center and evacuee contamination monitoring station.
		50-mile counties are notified.	Provide transportation for institutionalized individuals, special populations, and transportation dependent individuals if an evacuation is recommended	If shelter or evacuation is recommended, retain students who live within the EPZ at school.
		State may request implementation of the NRF and a Presidential Emergency Declaration. State may consider requesting a Federal Major Disaster Declaration, dependent upon contamination and extent of event.	Provide security for evacuated areas.	If an evacuation is recommended, activate care center.
		New releases provided to public from State JIC.	Monitor emergency worker exposures.	If an evacuation is recommended, relocate special populations and transportation dependent individuals to reception center or appropriate receiving facilities.
		Public inquiry continues to field calls at the SEOC.	Consider recommending administration of KI to emergency workers, institutionalized individuals and the general public.	Provide security for evacuated areas.
		Radiological emergency information made available to farmers, food processors, and distributors through the local OSU Extension.	Disseminate recommendation for emergency workers, institutionalized individuals and general public to take KI, as appropriate.	Monitor emergency worker exposures.
			Provide offsite monitoring results to utility and counties and jointly assess these.	Provide news statements and public information.
				Recommend issuance of KI to emergency workers and the general public.
				Disseminate ODH recommendation for emergency workers and the general public to take KI.
				Provide off-site monitoring results to Utility and jointly assess these sites.

Approximate Time	Message/Problem Statement	State Expected Actions	Ottawa County Expected Actions	Lucas County Expected Actions
12:23	Projected offsite doses exceed PAG (> 1000 mR TEDE or > 5000 mR/hr CDE) at Site Boundary, however current PARs are unaffected.			
12:50	Repairs completed to Penetration #59.			
12:55	Station Vent radiation monitors begin trending downward.			
13:05	Station Vent radiation monitors return to normal values. Release from the Station Vent is terminated.			
13:30	<b>EndEx</b>			
TBD	ESF-10 is notified by Ottawa County that an emergency worker needs to have approval to exceed his exposure limit.	ESF-10 will fill out their worksheet to determine if emergency worker can exceed dose.		
TBD	IZRRAG briefing	IZRRAG begins.		
TBD	Advanced Party Meeting	IZRRAG meets with FRMAC.		
TBD	Soil Sampling for DRL	Ohio EPA chooses soil sampling locations for 10-point sampling plan.		