

Final After Action Report/ Improvement Plan

Exercise Date – August 28, 2018

Radiological Emergency Preparedness (REP) Program



Fermi 2 Nuclear Power Plant

Published November 28, 2018

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Radiological Emergency Preparedness (REP) Program

Draft After Action Report/Improvement Plan

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EXECUTIVE SUMMARY

On August 28, 2018, the Department of Homeland Security, Federal Emergency Management Agency (FEMA) Region V Radiological Emergency Preparedness Program staff evaluated a plume exposure pathway exercise in the Emergency Planning Zone (EPZ) for the Fermi 2 Nuclear Power Plant (FNPP).

The FNPP is located approximately six miles northeast of Monroe, Michigan; 30 miles southwest of downtown Detroit, Michigan; and 25 miles northeast of downtown Toledo, Ohio. The 10-mile Plume Exposure Pathway EPZ of the FNPP encompasses part of Monroe and Wayne Counties in Michigan, parts of Lake Erie, and the southern tip of Essex County, (Bay Point) Canada. The major portion of the 10-mile EPZ falls within Monroe County.

The purpose of the exercise was to assess the level of state and local preparedness in responding to an incident at FNPP. 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 August 9, 2016. The qualifying emergency preparedness exercise was conducted on February 2, 1982.

Officials and representatives from the State of Michigan and the risk county of Monroe, 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 previous Level 2 Finding that was successfully demonstrated, three Level 2 Findings (redemonstrated), and three Plan Issues.

The Federal Emergency Management Agency wishes to acknowledge the efforts of the many individuals who participated in the exercise and made it a success. Approximately 175 individuals participated in the off-site portion of the exercise, of which about one-third were 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 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 Exposure Pathway Exercise was conducted on August 28, 2018, and evaluated by DHS/FEMA to assess the capabilities of State and local offsite emergency preparedness organizations in implementing their RERPs and procedures to protect the public's health and safety during a radiological emergency involving the Fermi 2 Nuclear Power Plant. The purpose of this exercise report is to present the exercise results and findings on the performance of the Off-Site Response Organizations (ORO) during a simulated radiological emergency.

The findings presented in this report are based on the evaluations of the Federal 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

2018 Fermi 2 Nuclear Power Plant Radiological Emergency Preparedness (REP), Full-Participation, Plume Exposure Pathway Exercise

TYPE OF EXERCISE

Plume Exposure Pathway

EXERCISE DATE

August 28, 2018

LOCATIONS

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

SPONSORS

Michigan State Police Emergency Management and Homeland Security Division
7150 Harris Drive
Dimondale, Michigan 48821

DTE Energy – Fermi 2 Nuclear Power Plant
6400 North Dixie Highway M/S 210 NOC EF2
Newport, MI 48166

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

- Michigan State Police Emergency Management/Homeland Security Division
- Michigan Department of Environmental Quality
- Michigan Department of Natural Resources
- Michigan Department of Agriculture and Rural Development
- Michigan Department of Health and Human Services
- Michigan Department of Military Affairs
- Michigan Department of Transportation

RISK COUNTY ORGANIZATIONS

- City of Monroe
- Dundee Township Fire Department
- Frenchtown CERT
- Frenchtown Fire Department
- Huron Fire Department
- Lake Erie Transit
- Michigan State University Extension

- Monroe Community Mental Health Authority
- Monroe Community Ambulance

- Monroe County Central Dispatch
- Monroe County Commission on Aging
- Monroe County Emergency Management Division
- Monroe County Health Department
- Monroe County Intermediate School District
- Monroe County Information Technology
- Monroe County Road Commission
- Monroe County Sheriff's Department

- Monroe Fire Department
- Monroe Public Safety

- Wayne County Emergency Management
- Wayne County DPS
- Wayne County Sheriff's Department
- Wayne County HVCW
- Wayne County RESA (schools)

- Livonia Police Department
- Brownstown Fire Department
- Allen Park DERT
- Metro Airport Fire Department
- Rockwood Fire Department
- Wyandotte Fire Department
- Southgate Fire Department

Woodhaven Fire Department

PRIVATE ORGANIZATIONS

American Red Cross
DTE Energy
ProMedica Monroe Regional Hospital
Radio Amateur Civil Emergency Services (RACES)
Salvation Army

FEDERAL ORGANIZATIONS

Federal Emergency Management Agency (FEMA)
National Weather Service
Nuclear Regulatory Commission (NRC)

SECTION 2: Exercise Design Summary

2.1 EXERCISE PURPOSE AND DESIGN

The 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 FEMA. One of the REP Program requirements established by these regulations is the biennial exercise of offsite response capabilities. During these exercises, 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.

FEMA provides a statement with the transmission of this Draft AAR/IP to the United States 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 Fermi 2 Nuclear Power Plant to FEMA Region V by the State of Michigan occurred in May and June, 2018 for Wayne and Monroe Counties respectively. Formal approval of these RERPs was granted by FEMA on July 10, 2018 for Wayne County and on July 27, 2018 for Monroe County, 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 Michigan and Monroe and Wayne Counties. The Core Capabilities demonstrated during this exercise were:

Operational Coordination: 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/FEM-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 3.2.4, of this report. Criteria-specific narrative summaries are presented in Section 3.3 of the report. The narratives summarize observations made pursuant to the REPP Evaluation Criteria used to assess the organizations and locations that were selected by the State of Michigan and Monroe and Wayne Counties. The organizations, locations, and evaluation criteria selected by the State of Michigan and Monroe and Wayne Counties are described in Appendix E, Extent-of-Play Agreements, which were approved by DHS/FEMA on May 22, 2018.

The results of the assessment are summarized below by Core Capability, as demonstrated during the August 28, 2018, FNPP REP Partial-Participation 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 Michigan State Police Emergency Management/Homeland Security Division, the Michigan Department of Environmental Quality, and the Michigan Department of Health and Human Services demonstrated proficiency in the use of dose assessment software to calculate dose projections independent of the Fermi 2 Nuclear Power Plant'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 FNPP Joint Public Information Center and at the Monroe County EMA. 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 (IPAWs), 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 FNPP 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: Not Selected – This capability will be demonstrated during the fall of 2018. 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 1d1, 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 all response groups and locations and between affected communities in the impact area.

Infrastructure Systems: Evaluation Criterion 3d2, which is the key criterion for this capability, was assessed pursuant to Monroe and Wayne Counties' capability to address impediments to mass evacuation. Monroe and Wayne Counties demonstrated the capability to address roadway impediments due to landslides and other events 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 August 28, 2018 Plume Exposure 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)
- Level 1 Finding was assessed
- Level 2 Finding was assessed or an unresolved Level 2 finding(s) from a prior exercise
- P: Plan Issue was assessed
- ND: 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 Michigan/Joint Information Center Operations

DATE: August 28, 2018 SITE: Fermi 2 Nuclear Power Plant M: Met L1: Level 1 Finding L2: Level 2 Finding P: Plan Issue ND: Not Demonstrated NS: Not Selected	CRITERION	State Initial Notification Point	State Emergency Operations Center	Incident Management Group	Field Team Center - MSP Monroe Post	Field Team 1 - MSP Monroe Post	Field Team 2 - MSP Monroe Post	Joint Information Center	State Liaison – Monroe County EOC	State Liaison – Wayne County EOC
Emergency Operations Management										
Mobilization	1a1	M	M	M	M			M	M	M
Facilities	1b1									
Direction and Control	1c1		M					M	M	M
Communications Equipment	1d1	M	M	M	M	M	M	M		
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	P					M	M
PARs	2b1			M	M					
PADs	2b2		P	M						
PADs for Disabled/Functional Needs	2c1		M	M						
Ingestion PADs	2d1									
RRR Decisions	2e1									
Protective Action Implementation										
EW Exposure Control Implementation	3a1				M	M	M			
KI Public/Institutionalized	3b1		M							
PAD Implementation Disabled/Functional Needs	3c1									
PAD Implementation Schools	3c2									
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				M	M	M			
Field Team Operations	4a3				M	P	L2			
Field Team Sampling	4b1									
Laboratory Operations	4c1									
Emergency Notification and Public Info										
Initial Alert and Notification	5a1		M							
RESERVED	5a2									
Backup Alert and Notification	5a3									
Exception Area Alerting	5a4									
Subsequent Information and Instructions	5b1		M					L2		
Support Operations and Facilities										
Reception Center Operations	6a1									
EW Monitoring and Decontamination	6b1									
Congregate Care	6c1									
Contaminated Injured Transport and Care	6d1									

Table 3.2.2 – Summary of Exercise Evaluation – Michigan Department of Environmental Quality

DATE: August 28, 2018 SITE: Fermi 2 Nuclear Power Plant M: Met L1: Level 1 Finding L2: Level 2 Finding P: Plan Issue ND: Not Demonstrated NS: Not Selected	CRITERION	MDEQ FTC EW Equipment/Vehicle Mon/Decon	MDEQ FTC EW Mon/Decon	MDEQ Rep – EW Equipment/Vehicle Mon/Decon Brownstown F.S. #4	MDEQ Rep – EW Mon/Decon Brownstown F.S. #4
Emergency Operations Management					
Mobilization	1a1				
Facilities	1b1				
Direction and Control	1c1				
Communications Equipment	1d1	M	M	M	M
Equipment and Supplies to Support Operations	1e1	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				
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 and Notification	5a1				
RESERVED	5a2				
Backup Alert and Notification	5a3				
Exception Area Alerting	5a4				
Subsequent Information and Instructions	5b1				
Support Operations and Facilities					
Reception Center Operations	6a1				
EW Monitoring and Decontamination	6b1	M	M	M	M
Congregate Care	6c1				
Contaminated Injured Transport and Care	6d1				

Table 3.2.3 – Summary of Exercise Evaluation – Monroe County

DATE: August 28, 2018 SITE: Fermi 2 Nuclear Power Plant M: Met L1: Level 1 Finding L2: Level 2 Finding P: Plan Issue ND: Not Demonstrated NS: Not Selected	CRITERION	Initial Notification Point	Monroe County EOC	MC Rep at JIC	MCEM Public Hotline Rumor Control	TACP Dosimetry Brief	TACP Demonstration	Dosimetry/KI Stocks – MCHD
Emergency Operations Management								
Mobilization	1a1	M	M	M				
Facilities	1b1							
Direction and Control	1c1		M	M	M			
Communications Equipment	1d1	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		M					
PARs	2b1		M					
PADs	2b2							
PADs for Disabled/Functional Needs	2c1		M					
Ingestion PADs	2d1							
RRR Decisions	2e1							
Protective Action Implementation								
EW Exposure Control Implementation	3a1		M			M	M	
KI Public/Institutionalized	3b1		M					
PAD Implementation Disabled/Functional Needs	3c1		M					
PAD Implementation Schools	3c2		M					
TACP Establishment	3d1		M				M	
Impediments	3d2		M					
Implement Ingestion PADs	3e1							
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 and Notification	5a1		L2					
RESERVED	5a2							
Backup Alert and Notification	5a3							
Exception Area Alerting	5a4							
Subsequent Information and Instructions	5b1		M	M	M			
Support Operations and Facilities								
Reception Center Operations	6a1							
EW Monitoring and Decontamination	6b1							
Congregate Care	6c1							
Contaminated Injured Transport and Care	6d1							

**Table 3.2.4 - Summary of Exercise Evaluation – Monroe County
Out-of-Sequence Activities**

DATE: August 28, 2018 SITE: Fermi 2 Nuclear Power Plant M: Met L1: Level 1 Finding L2: Level 2 Finding P: Plan Issue ND: Not Demonstrated NS: Not Selected		EV-2 School Interview Jefferson School	Public Reception/ Decontamination Center Congregate Care – Summerfield H. School	MDEQ REP – Summerfield High School	Public Reception/ Decontamination Center Congregate Care – Mason High School	MDEQ REP – Mason High School
Emergency Operations Management						
Mobilization	1a1					
Facilities	1b1					
Direction and Control	1c1		M		M	
Communications Equipment	1d1	M	M	M	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					
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 and Notification	5a1					
RESERVED	5a2					
Backup Alert and Notification	5a3					
Exception Area Alerting	5a4					
Subsequent Information and Instructions	5b1					
Support Operations and Facilities						
Reception Center Operations	6a1		M	M	M	M
EW Monitoring and Decontamination	6b1					
Congregate Care	6c1		M		M	
Contaminated Injured Transport and Care	6d1					

Table 3.2.5 - Summary of Exercise Evaluation – Wayne County

DATE: August 28, 2018 SITE: Fermi 2 Nuclear Power Plant M: Met L1: Level 1 Finding L2: Level 2 Finding P: Plan Issue ND: Not Demonstrated NS: Not Selected							
	CRITERION	Initial Notification Point	Wayne County EOC	Wayne County Rep at JIC	TACP Demonstration – Brownstown F.S. #4	EW Equipment/Vehicle Mon/Decon – Brownstown F.S. #4	EW Mon/Decon – Brownstown F.S. #4
Emergency Operations Management							
Mobilization	1a1	M	M	M			
Facilities	1b1						
Direction and Control	1c1		M	M			M
Communications Equipment	1d1	M	M	M	M	M	M
Equipment and Supplies to Support Operations	1e1		M	M	M	M	M
Protective Action Decision-Making							
EW Exposure Control Decisions	2a1		M				
PARs	2b1		M				
PADs	2b2						
PADs for Disabled/Functional Needs	2c1		M				
Ingestion PADs	2d1						
RRR Decisions	2e1						
Protective Action Implementation							
EW Exposure Control Implementation	3a1		M		M	M	M
KI Public/Institutionalized	3b1		M				
PAD Implementation Disabled/Functional Needs	3c1		M				
PAD Implementation Schools	3c2		M				
TACP Establishment	3d1		M		M		
Impediments	3d2		M				
Implement Ingestion PADs	3e1						
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 and Notification	5a1		M				
RESERVED	5a2						
Backup Alert and Notification	5a3						
Exception Area Alerting	5a4						
Subsequent Information and Instructions	5b1		M	M			
Support Operations and Facilities							
Reception Center Operations	6a1						
EW Monitoring and Decontamination	6b1					M	M
Congregate Care	6c1						
Contaminated Injured Transport and Care	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, and 3.2.5.

3.3.1 State of Michigan

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

3.3.1.1 State of Michigan – Initial Notification Point

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

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

3.3.1.2 State of Michigan - State Emergency Operations Center

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 and 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.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

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.d.1 – Core Capability: Operational Coordination

Core Capability: Critical Transportation

Core Capability: On-Scene Security and Protection

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

3.3.1.3 Incident Management Group

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 and 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

Criterion 2.c.1 – Core Capability: Operational Coordination

Core Capability: Operational Communications

Core Capability: Situational Assessment

3.3.1.4 Field Team Center – MSP Monroe Post

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 and 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

3.3.1.5 Field Team 1 – MSP Monroe Post

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

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

Core Capability: Mass Care Services

Core Capability: Public and 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

3.3.1.6 Field Team 2 – MSP Monroe Post

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 and 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

3.3.1.7 Joint Information Center

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 and 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

3.3.1.8 State Liaison – Monroe County Emergency Operations Center

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 and 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

3.3.1.9 State Liaison – Wayne County Emergency Operations Center

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 and 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

3.3.1.10 MDEQ FTC Emergency Worker Equipment/Vehicle Monitoring/Decontamination – MSP
Monroe Post

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

3.3.1.11 MDEQ FTC Emergency Worker Monitoring/Decontamination – MSP
Monroe Post

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

3.3.1.12 MDEQ Representative – Emergency Worker Equipment/Vehicle Monitor/Decontamination
– Brownstown F.S. #4

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

3.3.1.13 MDEQ Representative – Emergency Worker Monitor/Decontamination
– Brownstown F.S. #4

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

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

- a. MET: All Core Capabilities and Evaluation Criteria identified in the DHS/FEMA-approved extent-of-play agreement.
- b. LEVEL 1 FINDINGS: NONE
- c. LEVEL 2 FINDINGS: TWO - REDEMONSTRATED (SEE APPENDIX A)
- d. PLAN ISSUES: THREE (SEE APPENDIX A)
- e. PRIOR ISSUES: RESOLVED: NONE
- f. PRIOR ISSUES: UNRESOLVED: NONE

3.3.2 Risk Jurisdiction – Monroe County

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

3.3.2.1 Initial Notification Point

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

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

3.3.2.2 Monroe County Emergency Operations Center

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 and 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.c.1 – Core Capability: Operational Coordination

Core Capability: Operational Communications

Core Capability: Situational Assessment

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

3.3.2.3 Monroe County Rep at the Joint Information Center

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 and 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

3.3.2.4 MCEM Public Hotline Rumor Control

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 and 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 TACP Dosimetry Brief

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

Core Capability: Mass Care Services

Core Capability: Public and 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

3.3.2.6 Traffic and Access Control Point Demonstration

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 and 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

3.3.2.7 Dosimetry/Sodium Iodide Stocks – Monroe County Health Department

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

Core Capability: Mass Care Services

Core Capability: Public and Private Services and Resources

Core Capability: Public Health and Medical Services

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

- a. MET: All Core Capabilities and Evaluation Criteria identified in the DHS/FEMA-approved extent-of-play agreement.
- b. LEVEL 1 FINDINGS: NONE
- c. LEVEL 2 FINDINGS: ONE – REDEMONSTRATED (SEE APPENDIX A)
- d. PLAN ISSUES: NONE
- e. PRIOR ISSUES: RESOLVED (SEE APPENDIX A)
- f. PRIOR ISSUES: UNRESOLVED: NONE

3.3.3 Risk Jurisdiction – Monroe County, Out-of-Sequence

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

3.3.3.1 EV-2 School 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 and Private Services and Resources

Core Capability: Public Health and Medical Services

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

Core Capability: Critical Transportation

Core Capability: Environmental Response/Health and Safety

3.3.3.2 Public Reception/Decontamination/Congregate Care Center - Summerfield High School

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 and 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

Criterion 6.c.1 – Core Capability: Operational Coordination

Core Capability: Mass Care Services

3.3.3.3 MDEQ Representative - Summerfield High School

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 and 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

3.3.3.4 Public Reception/Decontamination/Congregate Care Center - Mason High School

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 and 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.c.1 – Core Capability: Operational Coordination

Core Capability: Mass Care Services

3.3.3.5 MDEQ Representative - Mason High School

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 and 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

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

- a. MET: All Core Capabilities and Evaluation Criteria identified in the DHS/FEMA-approved extent-of-play agreement.
- b. LEVEL 1 FINDINGS: NONE
- c. LEVEL 2 FINDINGS: NONE
- d. PLAN ISSUES: NONE
- e. PRIOR ISSUES: RESOLVED: NONE
- f. PRIOR ISSUES: UNRESOLVED: NONE

3.3.4 Host Jurisdiction – Wayne County

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

3.3.4.1 Initial Notification Point

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

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

3.3.4.2 Wayne County Emergency Operations Center

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 and 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.c.1 – Core Capability: Operational Coordination

Core Capability: Operational Communications

Core Capability: Situational Assessment

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

3.3.4.3 Wayne County Representative at Joint Information Center

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 and 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

3.3.4.4 Traffic and Access Control Point Demonstration - Brownstown F.S. #4

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 and 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

3.3.4.5 Emergency Worker Equipment/Vehicle Monitoring/Decontamination - Brownstown F.S. #4

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

3.3.4.6 Emergency Worker Monitor/Decontamination - Brownstown F.S. #4

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

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

- a. MET: All Core Capabilities and Evaluation Criteria identified in the DHS/FEMA-approved extent-of-play agreement.
- b. LEVEL 1 FINDINGS: NONE
- c. LEVEL 2 FINDINGS: NONE
- d. PLAN ISSUES: NONE
- e. PRIOR ISSUES: RESOLVED: NONE
- f. PRIOR ISSUES: UNRESOLVED: NONE

SECTION 4: Conclusion

The exercise resulted in no Level 1 Findings. There were three Level 2 Findings, two for the State of Michigan and one for the risk county of Monroe, which were successfully re-demonstrated. There were three Plan Issues for the State of Michigan, which remain open.

Based on the results of the exercise, the planning and preparedness for the State of Michigan 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 Michigan, remains in effect.

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APPENDIX A: Improvement Plan

This appendix summarizes the findings from the of the evaluation of all jurisdictions and functional entities that participated in the August 28, 2018, Fermi 2 Nuclear Power Plant Plume Pathway Exercise to test the offsite emergency response capabilities of State and local governments in the 10-mile EPZ surrounding the FNPP, recommended corrective actions, and a schedule of corrective actions for the identified primary responsible agency.

Finding: 23-16-5a1-A-01 ORO: Monroe County	Criterion: 5.a.1
<p>CONDITION: The faxes that were sent to WJR at 1214 and 1224 hours, (received at 1215 and 1227) outlining an Emergency Alert System (EAS) to be broadcast were not written so as to permit radio station personnel to directly read the information to the public. The EAS message required radio station personnel to obtain information from a 6 page fax regarding evacuation routes and reception centers. Area 6, another evacuated area, did not have an evacuation route stated in the EAS message. Similarly, the second EAS message contained conflicting information for areas 1, 2, and 4, with no information for areas 6 and 7. The transmitted EAS message also required WJR to broadcast information regarding reception centers. However, the information in the fax was difficult to decipher, as there were notes about whether the reception center was open, and whether to include all reception centers or just the open ones.</p> <p>Staff at the Monroe County Emergency Operations Center (EOC) did not coordinate with and did not verify with WJR staff when sirens were to sound and when the EAS message was to be broadcast or if radio station staff had any questions. The EAS message was the PAO to evacuate PAA 1, 2, & 6 and had been faxed to the radio station. Although the Emergency Management Director (EMD) called radio station WJR at 1214 hours and confirmed the fax had been received, he did not allow time for the radio station staff to prepare text for broadcast or to record the message before sounding sirens at 1217 hours. The radio station staff had difficulty sorting through the six page fax due to inconsistencies in the information that had been sent</p>	
<p>POSSIBLE CAUSE: The possible cause of the EAS process is a lack of coordination between the EOC and radio station as to what and when events should happen. Procedures for the station staff were not available. Documentation sent to the station contained inconsistent information.</p>	
<p>REFERENCE: NUREG-0654/FEMA-REP-1, E.5, 6, 7</p>	
<p>POTENTIAL EFFECT: The potential effect of a cumbersome EAS process and lack of coordination is the possibility that EAS messages may be sent out of sequence relative to siren sounding, messages may not be sent in a timely manner or may contain erroneous information.</p>	
<p>RECOMMENDATION: Ensure that enough time exists between the decision to activate the sirens and EAS and their actual activation. Coordination between the EOC and radio station as to when sirens are sounded and when the EAS is broadcast is to occur. Staff should review procedures prior to the GE ECL to ensure any preparations that can be made in advance of the decision are done so. Review documents relating to EAS messaging for clarity and remove any unnecessary documents from the fax packet sent</p>	

Finding: 23-16-5a1-A-01 ORO: Monroe County		Criterion: 5.a.1
to the radio station. Provide the radio station with training and procedures to more familiarize staff with procedures.		
SCHEDULE OF CORRECTIVE ACTIONS: Successfully demonstrated during this exercise.		
CORRECTIVE ACTION DESCRIPTION: Successfully demonstrated during this exercise. This issue is closed.		
REP ASSESSMENT AREA: Emergency Notification and Public Information	PRIMARY RESPONSIBLE AGENCY: Monroe County	
CORE CAPABILITY ELEMENT: Public Information and Warning, Operational Coordination, Operational Communications	AGENCY POC: Mark Hammond – Monroe County Emergency Management Director	
	ESTIMATED COMPLETION DATE: N/A	

Issue: 23-18-5b1-L2-01 ORO: State of Michigan Joint Information Center Criterion: 5.b.1	
CONDITION: Michigan Department of Agriculture and Rural Development issued three agriculture advisories at 1120 EDT due to the declaration of a General Emergency at the Fermi 2 Nuclear Power Plant. All three advisories listed Palisades Nuclear Power Plant in the body of the advisory.	
POSSIBLE CAUSE: The persons responsible for issuing the advisories did not proof read the advisories closely to insure all information was correct.	
REFERENCE: NUREG-0654/FEMA-REP-1, E.5, 7; G.3.a, G.4.a, c	
POTENTIAL EFFECT: Conflicting information released to the public could cause confusion and uncertainty to the agricultural community promote a lack of confidence in the information being released.	
RECOMMENDATION: The Michigan Department of Agriculture and Rural Development identified the error after release of the advisories and issued updated corrected advisories at 1210 EDT	
SCHEDULE OF CORRECTIVE ACTIONS: Successfully redemonstrated.	
CORRECTIVE ACTION DESCRIPTION: The Michigan Department of Agriculture and Rural Development identified the error after release of the advisories and issued updated corrected advisories at 1210 Eastern Daylight Time.	
REP ASSESSMENT AREA: Emergency Notification and Public Information	PRIMARY RESPONSIBLE AGENCY:
CORE CAPABILITY ELEMENT: Public Information and Warning, Operational Communications	AGENCY POC:
	ESTIMATED COMPLETION DATE: N/A

Issue: 23-18-4a3-L2-02 ORO: State of Michigan Field Monitoring Team 2 Criterion: 4.a.3
CONDITION: Field Monitoring Team 2 (FMT-2) members were not able to provide the Field Team Center with field data pertaining to the measurement of airborne radioiodine and particulates.
POSSIBLE CAUSE: 1) A FMT-2 member attempted to complete the procedure for the measurement of airborne radioiodine and particulates “from memory” and missed two steps. 2) In the printed SOGs, the pages jumped from 62 to 70 and some of the steps for measurement of airborne radioiodine and particulates appeared to be omitted. 3) Prior to the day of the demonstration, the procedure for the measurement of airborne radioiodine and particulates had been changed, and pages 63 through 69 had been removed from the printed SOGs for that reason. The procedure should have been continued by following Step 10 of the Field Monitoring RadResponder Guide on page 43 of the SOGs. However, there were no instructions following Step 18 on page 62 to do so.
REFERENCE: Michigan Nuclear Facilities Emergency Management Plan Michigan Nuclear Power Plant / Radiological Emergency Response Standard Operating Guide; Field Monitoring Team NUREG-0654/FEMA-REP-1, I.8, I.9c
POTENTIAL EFFECT: The inability of field monitoring teams to provide field data pertaining to the measurement of airborne radioiodine and particulates could result in an inability to monitor actual or potential offsite consequences of a radiological emergency condition.
RECOMMENDATION: The issue was corrected through retraining of the FMT-2 members on the measurement of airborne radioiodine and particulates, and re-demonstration of the criteria. ADDITIONAL RECOMMENDATIONS 1) Assemble printed copies of Standard Operating Guides in such a way that they can be easily followed, regardless of the experience level of the user. 2) When changes are made to Standard Operating Guides, review changes with all personnel who may be tasked to perform the affected procedures. 3) Provide more training opportunities for all personnel who may be assigned to field monitoring teams so that they are able to better familiarize themselves with field team procedures.
SCHEDULE OF CORRECTIVE ACTIONS: Successfully redemonstrated.

Issue: 23-18-4a3-L2-02 ORO: State of Michigan Field Monitoring Team 2 Criterion: 4.a.3	
CORRECTIVE ACTION DESCRIPTION: The issue was corrected through retraining of the Field Monitoring Team-2 members on the measurement of airborne radioiodine and particulates, and re-demonstration of the criteria.	
REP ASSESSMENT AREA: Environmental Response/Health and Safety	PRIMARY RESPONSIBLE AGENCY:
CORE CAPABILITY ELEMENT: Field Team Measurement and Analysis	AGENCY POC:
	ESTIMATED COMPLETION DATE: N/A

Issue: 23-18-5a1-L2-01 ORO: Monroe County EOC	Criterion: 5.a.1
CONDITION: The Monroe County EOC personnel did not demonstrate familiarity with the Monroe County Nuclear Power Plant Public Warning and Notification Procedures (June 2018 rev A).	
POSSIBLE CAUSE: Possible lack of pertinent training on expectations for siren system activation and tone alert radio messaging in regards to an incident at FNPP. Lack of the proper procedures available in the Communications Room of the EOC.	
REFERENCE: NUREG-0654/FEMA-REP-1, E.5, 6, 7 and Monroe County Nuclear Power Plant Public Warning and Notification Procedures (June 2018 rev A).	
POTENTIAL EFFECT: Failure to effectively disseminate EAS message to entire public.	
RECOMMENDATION: Recommendations For Improvement: 1) EMA work with Dispatch Center Supervisor(s) or Dispatch Center for clarification of expectations as to who will activate the siren system (per the plan either EMA or Dispatchers can activate the siren system) and tone alert radio activation and messaging (as they should be transmitting the EAS message via radios per the procedure). 2) Have the Enrico Fermi Siren Activation Procedure available in the EOC Communications Room as they do in Dispatch. 3) In regard to tone alert radio activation, consider a predetermined patched group or at least provide guidance on which tone alert radio recipients should be patched together to receive the alert and message. 4) Consider annual REP Training (REP basics, ECLs, siren activation, siren testing, backup siren activation procedures, tone alert radio activation and message transmission) be added to annual Dispatcher training program.	
SCHEDULE OF CORRECTIVE ACTIONS: Successfully redemonstrated.	
CORRECTIVE ACTION DESCRIPTION: As a corrective action, the Controller conducted training and provided the expectations of the siren system activation and notification process to the personnel involved. During the second alert and notification sequence, the dispatchers disseminated the EAS message to the entire public. The Level 2 Finding was closed as the corrective action was effective and the alert and notification sequence was successfully redemonstrated.	

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Issue: 23-18-5a1-L2-01 ORO: Monroe County EOC		Criterion: 5.a.1
REP ASSESSMENT AREA: Emergency Notification and Public Information	PRIMARY RESPONSIBLE AGENCY:	
CORE CAPABILITY ELEMENT: Public Information and Warning, Operational Coordination, Operational Communications	AGENCY POC:	
	ESTIMATED COMPLETION DATE: N/A	

Plan Issue: 23-18-4a3-P-01	ORO:State of Michigan Field Team 1	Criterion: 4.a.3
CONDITION: The Standard Operating Guide (SOG) for Field Monitoring Teams procedure for air sampling require that an area radiation survey be conducted while the air sample is being collected; however, there is no specification regarding the time(s) within the sampling interval when such measurements should be made.		
POSSIBLE CAUSE: The SOG does not specify that exposure rate measurements should be taken at the beginning, mid-point, and end of the air sampling interval to ensure that the plume is initially present and that it doesn't significantly drift away from the sampling location during the collection interval.		
REFERENCE: NUREG-0654 / FEMA-REP-1, Planning Standard I, Criteria I.9 and I.10 Michigan Department of Environmental Quality, Field Monitoring Team Standard Operating Guide, May 29, 2018		
POTENTIAL EFFECT: During the exercise conducted on August 28, 2018, the open / closed window exposure rate measurement required by page 57, steps 9 and 10 was made at the end of the sampling interval. Although this measurement indicated that the plume was present at that time, there was no assurance that it was present at the time that the sample collection was begun, or had shifted during the sampling period. In addition, had an exposure rate measurement been performed immediately prior to air sample collection and it showed no difference between the window open and window closed results, it would mean that direct radiation ("shine") from the plume was present and not the plume itself. Hence, an air sample collected under those conditions would have no value.		
RECOMMENDATION: Add a requirement to the air sampling procedure in the Field Monitoring Team SOG to perform a window open / window closed exposure rate measurement at 3 feet above ground immediately prior to, at mid-point, and at end of air sample collection interval. The team should notify the Field Team Center Coordinator if exposure rates vary significantly during the sampling period. Exposure rate variance would indicate the plume has shifted and may render the sample invalid. Ground level exposure rate measurements can be performed if time permits.		
SCHEDULE OF CORRECTIVE ACTIONS: Plans/procedures will be updated and submitted for review prior to the August 2018 DC Cook Ingestion Pathway Exercise.		
CORRECTIVE ACTION DESCRIPTION:		

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Plan Issue: 23-18-4a3-P-01 ORO:State of Michigan Field Team 1 Criterion: 4.a.3	
REP ASSESSMENT AREA: Environmental Response/Health and Safety	PRIMARY RESPONSIBLE AGENCY:
CORE CAPABILITY ELEMENT: Field Team Measurement and Analysis	AGENCY POC:
	ESTIMATED COMPLETION DATE:

Plan Issue: 23-18-2a1-P-02 ORO: State EOC Incident Management Group Criterion: 2.a.1
CONDITION: The process demonstrated by the State of Michigan Department of Environmental Quality (MDEQ) for upgrading an emergency worker's administrative exposure limit of 1000 mR was informal and not well documented. The process was evaluated through the review of procedures and interview of the Dose Analyst and Health Physicist at the SEOC and personnel at the Field Team Center.
POSSIBLE CAUSE: Missing and unclear procedures.
REFERENCE: NUREG-0654/FEMA - REP-1, C6; J.10, e, f; K.3.a, 4.
EFFECT: Missing and missing procedures could lead to inconsistent handling of EWs approaching the 1000mR turn-back limit and EWs requesting or queries concerning dose exceedance.
RECOMMENDATION: The MDEQ should formalize the process used for upgrading an emergency worker's administrative exposure limit in order to ensure that decisions regarding dose exceedance are handled consistently and adhere to best practices. Specifically: <ul style="list-style-type: none">• MDEQ should ensure that the first level supervision of emergency workers in the State and Counties are trained in the process.• The process should be expeditious and documented on a form.• The process should include the following considerations:<ul style="list-style-type: none">• The ALARA (as low as reasonably achievable) exposure philosophy.• Availability of a qualified replacement.• Critical nature of the assignment.• Validity of the dosimeter correction factor (default or calculated).• Ingestion of potassium iodide.• The utilization of respirators. In addition, it is recommended that the MDEQ method for calculating the dosimeter correction factor, when the isotopic mix in the radiation release is known, should be documented in a procedure. The process should run full-circle from tracking Emergency Worker exposures incrementally above 100mR, to questions/requests regarding dose exceedance, to dose assessment, to health-physics-based decision-making, to communicating decisions back down the chain to the worker/requester.

Plan Issue: 23-18-2a1-P-02 ORO: State EOC Incident Management Group Criterion: 2.a.1	
SCHEDULE OF CORRECTIVE ACTIONS: Plans/procedures will be updated and submitted for review prior to the August 2018 DC Cook Ingestion Pathway Exercise.	
CORRECTIVE ACTION DESCRIPTION:	
REP ASSESSMENT AREA: Protective Action Decision-Making	PRIMARY RESPONSIBLE AGENCY:
CORE CAPABILITY ELEMENT: Operational Coordination, Environmental Response/Health and Safety, Situational Assessment	AGENCY POC:
	ESTIMATED COMPLETION DATE:

Plan Issue: 23-18-2b2-P-03 ORO: Michigan State EOC		Criterion: 2.b2
<p>CONDITION: At 1204 Eastern Daylight Time, after the second PAO was made, the AGR recognized that the map he needed to correctly display the PAAs in the PAO was not in his plans and procedures. The state representatives from Wayne County noted that based on the PAR, they did not have a map in their current Boundary Book (book of 14 maps depicting PAAs) that would capture the recommended evacuated areas. The only map in the Boundary Book that did capture all of the areas, also included PAA 7. The AGR notified the other state staff members, including the GAR, IM, Deputy IM, and the SEOC Manager of the confusion with the maps. The SEOC Manager made contact with the Geographic Information Systems (GIS) team and they located the correct map on their network drive. The GIS team then emailed it to the AGR. Through the entire process of trying to determine which version of the Boundary Book/maps was being used, the SEOC proceeded with announcing the evacuations of PAAs 1, 2, 3, 4, and 6, based on the initial PAR from the FNPP, without acknowledging 7, in accordance with their current copy of Boundary Books.</p>		
<p>POSSIBLE CAUSE: The SEOC did not have of all possible maps in current Boundary Book.</p>		
<p>REFERENCE: NUREG 0654/FEMA-REP-1 D.4, J.9, J.10.m</p>		
<p>EFFECT: Produced confusion based on PAAs.</p>		
<p>RECOMMENDATION: The State Emergency Operations Center should ensure that current copies of their Boundary Books are available in all the emergency operating facilities support their Radiological Emergency Response procedures.</p>		
<p>SCHEDULE OF CORRECTIVE ACTIONS: Plans/procedures will be updated and submitted for review prior to the August 2018 DC Cook Ingestion Pathway Exercise.</p>		
<p>CORRECTIVE ACTION DESCRIPTION:</p>		
<p>REP ASSESSMENT AREA: Protective Action Decision-Making</p>	<p>PRIMARY RESPONSIBLE AGENCY:</p>	

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CORE CAPABILITY ELEMENT: Operational Coordination, Intelligence and Information Sharing, Environmental Response/Health and Safety, Operational Communications, Situational Assessment	AGENCY POC:
	ESTIMATED COMPLETION DATE:

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APPENDIX B: Exercise Timeline

Emergency Classification Level Event or Action	Time Utility Declared	Time that Notification Was Received or Action Was Taken All times are Eastern Daylight Time (EDT)			
		State of Michigan SEOC	Monroe County EOC	Wayne County EOC	Michigan JIC
Unusual Event	0805	0813	0812	0812	N/A
Alert	0851	0859	0858	0858	N/A
Site Area Emergency	0941	0953	1000	1000	N/A
General Emergency	1101	1114	1123	1123	1108
Release of Rad Material Started	1058	1114	1123	1123	1109
Release of Rad Material Terminated	N/A	N/A	N/A	N/A	N/A
Facility Declared Operational		0951	0942	0930	1033
Declaration of State Emergency		1108	0943	1000	1108
Exercise Terminated		1315	1315	1315	1330
Agricultural Advisory		1001	1010	1010	1041
Water, Air, and Rail Restriction		1131	1159	1200	1127
Early Informational Message: Fermi 2 Notice of Incident		0957	N/A	N/A	N/A
1 st Early Precautionary/Protective Action State: (KI Distribution)		0957	1003	1003	1035
2 nd Early Precautionary/Protective Action State:		N/A	N/A	N/A	N/A
1 st Protective Action Recommendation		1117	N/A	N/A	N/A
1 st Protective Action Order: Evacuate Protective Action Area: 1,2,3,6		1118	1129	1129	1118
1 st Siren Activation:		N/A	1135	N/A	N/A
1 st EAS Message:		N/A	1141	N/A	N/A
2 nd Protective Action Recommendation: Evacuate Protective Action Area: 1,2,3,4,6,7		1204	N/A	N/A	N/A
2 nd Protective Action Order:		1206	1219	1220	N/A
2 nd Siren Activation:		N/A	1230	N/A	N/A
2 nd EAS Message:		N/A	1235	N/A	N/A
KI Administration Decision:		1115	1123	1134	1132

LEGEND: N/A = ECL/Event/Action Not Applicable at Location ----- = Time Not Reported

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APPENDIX C: Exercise Evaluation Team

EXERCISE DATES: August 28, 2018

SITE: Fermi 2 Nuclear Power Plant

Exercise Management	Name	Agency/ Organization
Chair, Regional Assistance Committee	Sean O’Leary	DHS/FEMA
Exercise Director	Dwaine Warren	DHS/FEMA
Assistant Exercise Director	Stephen Tulley	DHS/FEMA
Assistant Exercise Director	Edward Golinski	DHS/FEMA
Michigan Site Specialist	Katherine Boyce	DHS/FEMA
Team Leader – State of Michigan	Alvin Blake	DHS/FEMA
Team Leader – Monroe County	Todd Gemske	DHS/FEMA
Team Leader – Wayne County	Jim King	DHS/FEMA
Contractor Evaluator Support – Regional Coordinator	Marcy Campbell	ICFI
Contractor Administrative Support	Haesun Jang	ICFI

State of Michigan		
Evaluated Off-Site Response Organizations/Locations	Evaluator	Agency/ Organization
Michigan – Initial Notification Point/Michigan Intelligence Operations Center	Carl Bebrich	DHS/FEMA
Michigan – State Emergency Operations Center (SEOC)	Brett Beardsley	DHS/FEMA
Michigan - SEOC	Carl Bebrich	DHS/FEMA
Michigan – Incident Management Group	Reginald Rodgers	ICFI
Michigan – Field Team Center – Michigan State Police (MSP) Monroe Post	Marcy Campbell	ICFI
Michigan – Field Team 1 – MSP Monroe Post	Thomas Essig	ICFI
Michigan – Field Team 2 – MSP Monroe Post	Cheryl Weaver	ICFI
Michigan – Joint Information Center (JIC)	Rosemary Samsel	ICFI
Michigan – JIC	Meg Swearingen	ICFI
Michigan – State Liaison at Monroe County EOC	Todd Gemske	DHS/FEMA
Michigan - State Liaison at Wayne County EOC	Jim King	DHS/FEMA
Michigan Department of Environmental Quality (MDEQ) FTC EW Equipment/Vehicle Mon/Decon – MSP Monroe Post	Thomas Essig	ICFI
MDEQ FTC EW Mon/Decon – MSP Monroe Post	Cheryl Weaver	ICFI
MDEQ Rep - EW EQUIP/VEH Mon/Decon – Brownstone F.S. #4	David Persaud	DHS/FEMA
MDEQ Rep - EW Mon/Decon – Brownstone F.S. #4	Reginald Rodgers	ICFI

Monroe County		
Evaluated Off-Site Response Organizations/Locations	Evaluator	Agency/ Organization
Monroe County – Initial Notification Point	David Persaud	DHS/FEMA
Monroe County - Emergency Operations Center (EOC)	Mark Dalton	ICFI
Monroe County - EOC	Terry Blackmon	ICFI
Monroe County - EOC	David Persaud	DHS/FEMA
Monroe County - REP at Joint Information Center	Meg Swearingen	ICFI
Monroe County - Monroe County Emergency Management Public Hotline/Rumor Control	P.J. Nied	ICFI
Monroe County - Traffic and Access Control Point (TACP) Dosimetry Brief	P.J. Nied	ICFI
Monroe County - TACP Demonstration	Terry Blackmon	ICFI
Monroe County - Dosimetry/Potassium Iodide Stock – Monroe County Health Department	P.J. Nied	ICFI
Monroe County - EV-2 School Interview – Jefferson High School	Jim King	DHS/FEMA
Monroe County - Public Reception/Decon Center/Congregate Care – Summerfield High School	Brian Reinhart	DHS/FEMA
Monroe County - Public Reception/Decon Center/Congregate Care – Summerfield High School	Katherine Boyce	DHS/FEMA
Monroe County - Public Reception/Decon Center/Congregate Care – Summerfield High School	Jim King	DHS/FEMA
Monroe County - Michigan Department of Environmental Quality (MDEQ) Rep - Summerfield High School	Dwayne Warren	DHS/FEMA
Monroe County - Public Reception/Decon Center/Congregate Care – Mason High School	Brian Reinhart	DHS/FEMA
Monroe County - Public Reception/Decon Center/Congregate Care – Mason High School	Katherine Boyce	DHS/FEMA
Monroe County - Michigan Department of Environmental Quality (MDEQ) Rep – Mason High School	Katherine Boyce	DHS/FEMA

Wayne County		
Evaluated Off-Site Response Organizations/Locations	Evaluator	Agency/ Organization
Wayne County – Initial Notification Point	Ken Wierman	DHS/FEMA
Wayne County - Emergency Operations Center (EOC)	Ken Wierman	DHS/FEMA
Wayne County - EOC	Curtis Williams	DHS/FEMA
Wayne County - EOC	Paul Ringheiser	ICFI
Wayne County - REP at Joint Information Center	Meg Swearingen	ICFI
Wayne County - Traffic Access Control Point Demonstration – Brownstone F.S. #4	Ken Wierman	DHS/FEMA
Wayne County - Emergency Worker Equipment/Vehicle Mon/Decon – Brownstone F.S. #4	David Persaud	DHS/FEMA
Wayne County - Emergency Worker Mon/Decon – Brownstone F.S. #4	Reginald Rodgers	ICFI

APPENDIX D: Acronyms and Abbreviations

ACRONYM	DESCRIPTION
AAR	After Action Report
AGR	Attorney General's Representative
ANS	Alert and Notification System
ARC	American Red Cross
ARES	Amateur Radio Emergency Service
CCC	Congregate Care Center
CERT	Community Emergency Response Team
CFR	Code of Federal Regulations
COC	Change-of-Custody
cpm	counts per minute
Cs	Cesium
DCO	Dosimetry Control Officer
DEQ	Department of Environmental Quality
DHHS	Department of Health and Human Services
DHS	Department of Homeland Security
DO	Duty Officer
DPS	Disaster Preparedness Specialist
DRD	Direct Reading Dosimeter
DRFD	Downriver Fire Department
EAS	Emergency Alert System
ECL	Emergency Classification Level
EDT	Eastern Daylight Time
EMA	Emergency Management Agency
EMD	Emergency Management Director
EMHSD	Emergency Management Homeland Security Division
EMT	Emergency Medical Team
EOC	Emergency Operation Center
EOF	Emergency Operations Facility
EPZ	Emergency Planning Zone
EV-2	Reference to FEMA REP Guidance Memorandum – GM EV-2, Protective Actions for School Children, November 13, 1986
EW	Emergency Worker
EWDC	Emergency Worker Decontamination Center
EWMD	Emergency Worker Monitoring and Decontamination
FA	Facility Administrator
FD	Fire Department
FEMA	Federal Emergency Management Agency
FMT	Field Monitoring Team
FNPP	Fermi 2 Nuclear Power Plant

ACRONYM	DESCRIPTION
FT	Field Team
FTC	Fermi Transportation Center/Field Team Center
FTCC	Field Team Center Coordinator
g	gram(s)
GAR	Governor's Authorized Representative
GE	General Emergency
GIS	Geographical Information System
GM	Geiger Mueller
gpm	gallons per minute
HEMS	Health Emergency Medical System
HSEMD	Homeland Security and Emergency Management Division
HVCW	Health, Veterans and Community Wellness
IM	Incident Manager
IPAWS	Integrated Public Alert and Warning System
IT	Information Technology
IWP	Initial Warning Point
JIC	Joint Information Center
JPIC	Joint Public Information Center
JIT	Joint Information Team
KI	Potassium Iodide
KV	KiloVolts
LEIN	Law Enforcement Information Network
MARCS	Multi-Agency Radio Communications System
MCANS	Monroe County Alert Notification System
MCCA	Monroe County Commission on Aging
MCCD	Monroe County Central Dispatch
MCSO	Monroe County Sheriff's Office
MDARD	Michigan Department of Agriculture and Rural Development
DEQ	Michigan Department of Environmental Quality
MDHSS	Michigan Department of Health and Human Services
μCi/ml	micro (10 ⁻⁶) Curies per milliliter
mg	milligram
MHz	Megahertz
MIOC	Michigan Intelligence Operations Center
min	minute(s)
MOSA	Michigan Office of the Services to the Aging
MPD	Monroe Police Department
MPH/mph	miles per hour
μR	micro (10 ⁻⁶) R/micro Roentgen
MSP	Michigan State Police
NARS	Nuclear Accident Reporting System
NFEMP	Nuclear Facilities Emergency Management Plan

ACRONYM	DESCRIPTION
NOAA	National Oceanic and Atmospheric Administration
NPENF	Nuclear Plant Event Notification Form
NRC	Nuclear Regulatory Commission
OBE	Operating-Basis Earthquake
OC	Operations Section Chief
OOS	Out-of-Sequence
ORO	Offsite Response Organizations
OSLD	Optically Stimulated Luminescence Dosimeter
PAA	Protective Action Area
PAD	Protective Action Decision
PAG	Protective Action Guidelines
PAO	Protective Action Order
PAR	Protective Action Recommendation
PDAFN	Persons with Disabilities and Access/Functional Needs
PIO	Public Information Officer
PPE	Personal Protective Equipment
ppm	parts per million
PRD	Permanent Record Dosimeter
R	Roentgen
RAC	Regional Assistance Committee
RACES	Radio Amateur Civil Emergency Service
RADEF	Radiological Defense
RADPRO/RadPro	Radiological Protection Officer
RC	Reception Center
RCS	Reactor Containment System
RDL	Radiological Decontamination Leader
rem	radiation exposure man
REP	Radiological Emergency Preparedness
RERP	Radiological Emergency Response Plan
RESA	Regional Education Services Agency
RIMC	Radiological Instrumentation, Maintenance and Calibration
RTS	Radiation Technical Specialist
SAE	Site Area Emergency
SDEM	State Director of Emergency Management
SEOC	State Emergency Operations Center
SITREP	Situation Report
SLRCS	Supplementary Leak Collection and Release System
SOG	Standard Operating Guideline
SOP	Standard Operating Procedure
SOO	School Operations Officer
SSO	School Services Officer
TACP	Traffic and Access Control Point

ACRONYM	DESCRIPTION
TEDE	Total Effective Dose Equivalent
TLD	Thermoluminescent Dosimeter
TSG	Technical Support Group
UE	Unusual Event
UHF	Ultra-High Frequency
VHF	Very High Frequency
VOIP	Voice Over Internet Protocol
WC	Wayne County
WCCC	Wayne County Community College
WDC	Worker Decontamination Center

APPENDIX E: Extent-of-Play Agreements

Fermi 2 Nuclear Power Plant

State of Michigan, Monroe County, and Wayne County

Radiological Emergency Preparedness

Full-Participation

Plume Exposure Pathway Exercise

August 28, 2018

Fermi 2 REP Exercise Objectives August 28, 2018

Extent of Play Agreements for Monroe County, Wayne County and the State of Michigan

Criteria:

Criteria that will be demonstrated during this exercise and can be re-demonstrated immediately for credit, include the following:

3.a.1, 3.b.1, 3.c.2, 3.d.1, 3.d.2, 6.a.1, 6.b.1, 6.c.1, 6.d.1

Criteria that may be re-demonstrated, as approved on a case-by-case basis by the Regional Assistance Committee, include the following: 2.a.1, 2.b.1, 2.b.2, 5.a.1, 5.b.1

Criteria that are not evaluated for this exercise include the following: 2.d.1, 2.e.1, 3.e.1, 3.e.2, 3.f.1, 4.b.1, 4.c.1, 5.a.3, 5.a.4

Evaluation Area 1 - Emergency Operations Management

Criterion 1.a.1: Offsite Response Organizations (OROs) use effective procedures to alert, notify, and mobilize emergency personnel and activate facilities in a timely manner.

State of Michigan

1. The State Emergency Operations Center (SEOC), MSP Operations and Field Team Center (FTC) will be fully activated. State personnel reporting to the SEOC will be mobilized in accordance with procedures.
2. State personnel reporting to the county Emergency Operation Center (EOC) will be pre-positioned and will report when mobilized by the SEOC.
3. State personnel reporting to the FTC will be pre-positioned and will begin exercise participation at the time determined by the scenario and controller injects.
4. The Worker Decontamination Center (WDC) will be demonstrated out of sequence on Monday, August 27^h, 2018, at 2:00 pm. Personnel reporting to the WDC will be pre-positioned and will begin participation at the direction of the controller.
5. State personnel reporting to the Joint Information Center (JIC) will be pre-positioned and will begin participation after the arrival of Monroe and Wayne Counties' JIC personnel.
6. State personnel involved in out-of-sequence demonstrations will be pre-staged.
7. A roster will be provided to demonstrate 24-hour staffing.

Monroe County

1. The Monroe County EOC will be activated and mobilized in accordance with procedures.
2. Monroe County JIC personnel will be mobilized in accordance with procedures.
3. All personnel involved in out-of-sequence demonstrations will be pre-positioned.
4. A roster will be provided to demonstrate 24-hour staffing of the county EOC.

Wayne County

1. The Wayne County EOC will be activated and mobilized in accordance with procedures.
2. Wayne County JIC personnel will be mobilized in accordance with procedures.
3. All personnel involved in out-of-sequence demonstrations will be pre-positioned.
4. A roster will be provided to demonstrate 24-hour staffing of the county EOC.

Criterion 1.b.1: Facilities are sufficient to support the emergency response.

State of Michigan

1. The SEOC and is maintained in operational readiness and set up will not be demonstrated. The state was evaluated in 2017 due in 2024.
2. The JIC and is maintained in operational readiness and set up will not be demonstrated. The state was evaluated in 2014 due in 2022.

Monroe County

1. The EOC is maintained in operational readiness and set up will not be demonstrated. Monroe County was evaluated in 2014 due in 2022.

Wayne County

1. The EOC is maintained in operational readiness and set up will not be demonstrated. Wayne County was evaluated in 2015 due in 2023.

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.

State of Michigan

1. This criterion will be demonstrated by state personnel at the SEOC, by State Liaison Officers at county EOCs, and state personnel at the FTC, FMTs, WDC, and the JIC.

Monroe County

1. This criterion will be demonstrated at the county EOC, JIC, Congregate Care and Public Reception Monitoring and Decontamination Centers.

Wayne County

1. This criterion will be demonstrated at the county EOC, JIC, and Emergency Worker Monitoring and Decontamination Center.

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.

State of Michigan

1. This criterion will be demonstrated by the SEOC, FTC, FMTs, WDC, JIC. If both the primary and back-up systems fail, this objective may be demonstrated by successful use of an alternate method of communication.

Monroe County

1. This criterion will be demonstrated by the EOC, JIC, Public Reception Decontamination Center, Congregate Care and Access Control. If both the primary and back-up systems fail, this objective may be demonstrated by successful use of an alternate method of communication.

Wayne County

1. This criterion will be demonstrated by the EOC, JIC, Emergency Worker Decontamination Center, and Access Control. If both the primary and back-up systems fail, this objective may be demonstrated by successful use of an alternate method of communication.

Criterion 1.e.1: Equipment, maps, displays monitoring instruments, dosimetry, potassium iodide (KI), and other supplies are sufficient to support emergency operations.

State of Michigan

1. Equipment, maps, displays, and other supplies will be demonstrated to support emergency operations at the SEOC, FTC, FMTs, WDC, JIC, State Liaison Officers at County EOCs, and out-of-sequence events.
2. Additional supplies of potassium iodide are stored at the Michigan State Police Emergency Management and Homeland Security Division (MSP/EMHSD) office in Dimondale. These supplies are meant to augment the county supplies.
3. Calibration records will be provided for equipment calibrated by DEQ for the current calendar year.
4. Additional monitoring instruments are stored at the Department of Environmental Quality facility located on Filley Street in Lansing.

Monroe County

1. Equipment, maps, displays, and other supplies will be demonstrated to support emergency operations at the EOC, JIC and out-of-sequence events.
2. Personnel involved in traffic and access control points will demonstrate knowledge of where to secure traffic control equipment.
3. Potassium iodide and dosimeters are stored at the county.

Wayne County

1. Equipment, maps, displays, and other supplies will be demonstrated to support emergency operations at the EOC, JIC and out-of-sequence events.
2. Personnel involved in traffic and access control points will demonstrate knowledge of where to secure traffic control equipment at the Emergency Worker Decontamination Center.
3. Potassium iodide and dosimeters are stored at the county.

Evaluation Area 2 - Protective Action Decision Making

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.

State of Michigan

1. This criterion will be demonstrated by the Incident Management Group in the SEOC in conjunction with appropriate support staff including the Technical Support Unit (TSU) and the Michigan Department of Health and Human Services (MDHHS).
2. Authorization for State personnel to exceed state exposure limits will be demonstrated by the State Health Physicist. If the scenario does not provide an opportunity to demonstrate these items, this will be demonstrated through an interview at a time that will not interfere with exercise play to demonstrate the ability to perform these actions.

Monroe County – Does not apply unless situation warrants immediate action.

1. Monroe County may recommend that emergency workers ingest KI and/or authorize emergency workers to exceed State exposure limits based on best available information, if the incident (intentional vs. unintentional) warrants, and if the State is unable to provide Protective Actions Orders to protect emergency workers in a timely manner.
2. Any decision regarding the implementation of protective measures prior to a Governor's Declaration by an agency with authority to warn and protect the public in a timely manner will be documented as an "Interim Protective Measures Decision" in lieu of a "Protective Action Decision."

Wayne County – Does not apply unless situation warrants immediate action.

1. Wayne County may recommend that emergency workers ingest KI and/or authorize emergency workers to exceed State exposure limits based on best available information, if the incident (intentional vs. unintentional) warrants, and if the State is unable to provide Protective Actions Orders to protect emergency workers in a timely manner.
2. Any decision regarding the implementation of protective measures prior to a Governor's Declaration by an agency with authority to warn and protect the public in a timely manner will be documented as an "Interim Protective Measures Decision" in lieu of a "Protective Action Decision."

Note: This criterion may be re-demonstrated as approved on a case-by-case basis by the Chairperson of the Regional Assistance Committee.

Criterion 2.b.1: Appropriate Protective Action Recommendations (PARs) are based on available information on plant condition, field monitoring data, and licensee and ORO dose projections, as well as knowledge of onsite and offsite environmental conditions.

State of Michigan

1. The Technical Support Unit (TSU) in the SEOC will evaluate licensee and FTC provided information and complete an independent analysis of scenario data.
2. Dose assessment will be conducted as required by the scenario at the SEOC.

Monroe County – Does not apply unless situation warrants immediate action.

1. Monroe County may implement protective measures prior to a Governor's Declaration to warn and protect the public based on best available information if the incident (intentional vs. unintentional) warrants and if the State is unable to provide Protective Actions Orders to warn and protect the public in a timely manner.

Wayne County – Does not apply unless situation warrants immediate action.

1. Wayne County may implement protective measures prior to a Governor's Declaration to warn and protect the public based on best available information if the incident (intentional vs. unintentional) warrants and if the State is unable to provide Protective Actions Orders to warn and protect the public in a timely manner.

Note: This criterion may be re-demonstrated as approved on a case-by-case basis by the Chairman of the Regional Assistance Committee.

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 it is ORO policy).

State of Michigan

1. This criterion will be demonstrated by the Incident Management Group in the SEOC in conjunction with appropriate support staff including the TSU and the Michigan Department of Health and Human Services (MDHHS).
2. The Potassium Iodide (KI) policy will be demonstrated at the General Emergency declaration through SEOC discussion and a press release at the JIC.

Monroe County

This criterion will not be demonstrated by the County.

Wayne County

This criterion will not be demonstrated by the County.

Note: This criterion may be re-demonstrated as approved on a case-by-case basis by the Chairman of the Regional Assistance Committee.

Criterion 2.c.1: Protective Action Decisions are made, as appropriate, for groups of people with disabilities and those with access/functional needs.

State of Michigan

1. This criterion will be demonstrated by the Incident Management Group and TSU in the SEOC in coordination with applicable support staff, through the decision to recommend the use of KI to institutionalized persons that cannot be evacuated.

Monroe County – Does not apply unless situation warrants immediate action.

1. Monroe County may implement protective measures prior to a Governor's Declaration to warn and protect the public based on best available information if the incident (intentional vs. unintentional) warrants and if the State is unable to provide Protective Actions Orders to warn and protect the public in a timely manner.

Wayne County – Does not apply unless situation warrants immediate action.

1. Wayne County may implement protective measures prior to a Governor's Declaration to warn and protect the public based on best available information if the incident (intentional vs. unintentional) warrants and if the State is unable to provide Protective Actions Orders to warn and protect the public in a timely manner.

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.

This criterion will not be demonstrated during this exercise.

Criterion 2.e.1: Timely post-plume 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.

This criterion will not be demonstrated during this exercise.

Evaluation Area 3 - Protective Action Implementation

Criterion 3.a.1: The OROs issue appropriate dosimetry, KI, and procedures, and manage radiological exposure to emergency workers in accordance with the plan and procedures. Emergency workers periodically and at the end of each mission read their dosimeters and record the readings on the appropriate exposure record or chart. Appropriate record-keeping of the administration of KI for emergency workers is maintained.

State of Michigan

1. The State of Michigan will demonstrate this criterion through Radiological Emergency Worker briefing(s) and interview(s) at the FTC, FMTs and WDC.
2. Radiological Emergency Worker / Equipment Monitoring and Decontamination procedures will be demonstrated by the WDC personnel at the WDC.
3. Decontamination demonstrations, through out-of-sequence activities on Monday, August 27th, 2018 at 2:00 pm at Monroe MSP Post #28, 300 Jones Ave., Monroe, MI. This will include full equipment set-up, simulated decontamination actions and/or interview(s) as appropriate, but no water or decontamination solutions will be used during the demonstration.

Monroe County

1. Monroe County will demonstrate this criterion at the access control point when emergency workers are issued dosimeters at the local EOC.
2. Monroe County will demonstrate this criterion through out of sequence activities at Summerfield High School Decontamination Center on Tuesday, June 26th, 6:00 pm and Mason High School Decontamination Center Wednesday, June 27th, 6:00 pm.

Wayne County

1. Wayne County will demonstrate this criterion at the access control point when emergency workers are issued dosimeters at Emergency Worker Decontamination Center.

Criterion 3.b.1: KI and appropriate instructions are available in case a decision to recommend use of KI is made. Appropriate record keeping of the administration of KI for institutionalized individuals and general public is maintained.

State of Michigan

1. The State will demonstrate this objective at the SEOC and through decision-making and directives to implement appropriate Protective Action Orders.

Monroe County

1. Monroe County will demonstrate the ability (simulate) to administer KI to institutionalized individuals.

Wayne County

1. Wayne County will demonstrate the ability (simulate) to administer KI to institutionalized individuals.

Note: This criterion may be re-demonstrated immediately for credit, at the discretion of the evaluator.

Criterion 3.c.1: Protective Action Decisions (PADs) are implemented for people with disabilities and those with access/functional needs other than schools within areas subject to protective actions.

State of Michigan

This criterion will not be demonstrated by the State.

Monroe County

1. This criterion will be demonstrated in the EOC via staff discussions that may include evacuation of hospitals, nursing homes, correctional facilities, mobility impaired individuals, and transportation dependent. These discussions will be documented in situation logs.
2. Actual contacts to special population groups will not be made. Simulation of calls will be logged as such.
3. Monroe County will contact a minimum of four providers of transportation services, which may include public transit authorities, school systems for buses, ambulance services, or fire/rescue services.

Wayne County

1. This criterion will be demonstrated in the EOC via staff discussions that may include evacuation of hospitals, nursing homes, correctional facilities, mobility impaired individuals, and transportation dependent. These discussions will be documented in situation logs.
2. Actual contacts to special population groups will not be made. Simulation of calls will be logged as such.
3. Wayne County will contact a minimum of four providers of transportation services, which may include public transit authorities, school systems for buses, ambulance services, or fire/rescue services.

Criterion 3.c.2: OROs/School officials implement protective actions for schools.

State of Michigan

This criterion does not apply.

Monroe County

1. This criterion will be demonstrated by Monroe County EOC as driven by the scenario.
2. An EV-2 interview will be conducted out-of-sequence at Jefferson School District, 2400 North Dixie Hwy, Monroe, MI 48162 on **June 26, 2018, at 10:00 am.**

3. Refer to the Table of Exercise Demonstrations for specific times. This will be conducted out-of-sequence.

Wayne County

1. This criterion will be demonstrated by Wayne County EOC as driven by the scenario.
2. An EV-2 interview will be conducted out-of-sequence at Gibraltar School on **November 30, 2018, at 10:00am.**
3. Refer to the Table of Exercise Demonstrations for specific times. This will be conducted out-of-sequence.

Note: This criterion may be re-demonstrated immediately for credit, at the discretion of the evaluator.

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

State of Michigan

1. This criterion will be demonstrated by the SEOC through the restriction of air, interstate, rail, and waterway access.

Monroe County

1. Decisions related to traffic and access control will be demonstrated in the Monroe County EOC. Monroe County demonstration locations will be determined during the exercise at a time agreed upon by the FEMA evaluator, the Exercise Controller, and the county Emergency Management Coordinator.
2. Staffing of all other access and traffic control points will be simulated.

Wayne County

1. Decisions related to traffic and access control will be demonstrated in the Wayne County EOC and the Emergency Worker Decontamination Center. Wayne County demonstration locations will be determined during the exercise at a time agreed upon by the FEMA evaluator, the Exercise Controller, and the county Emergency Management Coordinator.
2. Staffing of all other access and traffic control points will be simulated.

Note: This criterion may be re-demonstrated immediately for credit, at the discretion of the evaluator.

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

State of Michigan

This criterion does not apply

Monroe County

1. This will be demonstrated through discussions at the county EOC. Messages will be injected by Exercise Controllers to drive these demonstrations. Personnel will deal with the impediments by discussing the need for equipment, discussing its estimated time of arrival, etc. If the impediment posed involves road closures that would have been known to exercise participants during the course of normal operations, this information will be provided to the players as part of the initial conditions for the exercise. All contacts, actual or simulated will be logged. Information will be provided to the JIC for each impediment.

Wayne County

1. This will be demonstrated through discussions at the county EOC. Messages will be injected by Exercise Controllers to drive these demonstrations. Personnel will deal with the impediments by discussing the need for equipment, discussing its estimated time of arrival, etc. If the impediment posed involves road closures that would have been known to exercise participants during the course of normal operations, this information will be provided to the players as part of the initial conditions for the exercise. All contacts, actual or simulated will be logged. Information will be provided to the JIC for each impediment.

Note: This criterion may be re-demonstrated immediately for credit, at the discretion of the evaluator.

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.

This criterion will not be demonstrated during this exercise.

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.

This criterion will not be demonstrated during this exercise.

Criterion 3.f.1: Decisions regarding controlled reentry, relocation, and return of individuals during the post-plume phase are coordinated with appropriate organizations and implemented.

This criterion will not be demonstrated during this exercise.

Evaluation Area 4 - Field Measurement and Analysis

Criterion 4.a.1: (RESERVED)

Criterion 4.a.2: Field teams (two or more) are managed to obtain sufficient information to help characterize the release and to control radiation exposure.

State of Michigan

1. This criterion will be demonstrated by the FMTs.

Monroe County and Wayne County

This criterion does not apply.

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.

State of Michigan

1. Two State teams will demonstrate the capability to take ambient radiation measurements of a (simulated) airborne plume. Will demonstrate the collection of an air sample followed by the measurement of the sample in a low background area. Radiological readings will be simulated and uploaded to the RadResponder website. Back-up methods will be used if necessary.
2. Charcoal or silver zeolite cartridges may be used for air sampling.
3. Donning and doffing PPE will not be demonstrated by FMTs. Donning and doffing will be demonstrated by one emergency worker at the WDC.

Monroe County and Wayne County

This criterion does not apply.

Criterion 4.b.1: The field teams (two 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.

State of Michigan

This criterion will not be demonstrated during this exercise.

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

This criterion will not be demonstrated during this exercise.

Evaluation Area 5 - Emergency Notification and Public Information

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

State of Michigan

1. The State will provide information to the county for release in the Emergency Alert System messages.

Monroe County

1. Monroe County is the primary activation point for the public warning sirens. Monroe County also activates the Emergency Alert System (EAS) using **IPAWS**. FEMA

evaluator will confirm message was received at FEMA IPAWS lab any time after message was sent.

Wayne County

1. Wayne County will provide, as needed, information to Monroe County for inclusion in EAS messages.

Note: This criterion may be re-demonstrated as approved on a case-by-case basis by the Chairman of the Regional Assistance Committee.

Criterion 5.a.2: [RESERVED]

Criterion 5.a.3: Backup alert and notification of the public is completed within a reasonable time following detection by the ORO of a failure of the primary alert and notification system.

This criterion will not be demonstrated during this exercise.

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

The Fermi 2 Emergency Planning Zone (EPZ) does not contain any DHS/FEMA approved exception areas.

This criterion will not be demonstrated during this exercise.

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

State of Michigan, Monroe County and Wayne County

1. This will be demonstrated at the JIC via dissemination of emergency information and instructions through joint media briefings and news release announcements in coordination with the SEOC and County EOCs. All media briefings will be conducted at the JIC.
2. A public inquiry hotline will be operated by Monroe County during the exercise by personnel based at the Monroe County Emergency Management Office. Trending is performed by the Rumor Control Coordinator, who identifies trends and ensures appropriate information is provided to the public inquiry operators and the JIC for inclusion in press briefings

Note: This criterion may be re-demonstrated as approved on a case-by-case basis by the Chairman of the Regional Assistance Committee.

Evaluation Area 6 - Support Operation/Facilities

Criterion 6.a.1: The reception center facility has appropriate space, adequate resources, and trained personnel to provide monitoring, decontamination, and registration of evacuees.

State of Michigan

1. State personnel will provide phone assistance as requested by the counties per the procedures in the Nuclear Facilities Emergency Management Plan during county Public Reception/Emergency Worker decontamination center demonstrations. Phone calls may be simulated through discussions with State personnel who are available in person for the out-of-sequence demonstrations.

Monroe County

1. Monroe County will demonstrate separate public reception/decontamination center out-of-sequence: Tuesday, June 26 at 6:00 pm, Summerfield High School, and Wednesday, June 27 at 6:00 pm at Mason High School.
2. The capability to monitor 20% of the population in the 10-mi EPZ over a 12 hour period will be demonstrated. To meet this objective a facility must be able to monitor, on average, 3.3 people per minute. Six (simulated) evacuees will be monitored. One portal monitor will be set up to process the evacuees. One person will be contaminated (simulated).
3. Dosimetry and survey instrument calibration and maintenance records will be evaluated as described under Criterion 1.e.1.
4. The process for setting up the Center will not be evaluated. Set-up will occur and conclude in a reasonable time. Evaluators will observe but not interfere with the set up process at the Center prior to the beginning of the evaluated demonstration.
5. A Radiological Worker Break area will be demonstrated through discussion and will not be required to be set up. Workers will be allowed to eat and drink during the center setup period, prior to demonstration of operations. Workers may use restrooms freely during center set-up and operation.
6. Decontamination of the public and vehicles will not be demonstrated, vehicles will be parked if contaminated.

Wayne County

This criterion will not be demonstrated during this exercise.

Note: This criterion may be re-demonstrated immediately for credit, at the discretion of the evaluator.

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.

State of Michigan

1. This criterion will be demonstrated at the State's WDC, out-of-sequence on Monday, August 27th, 2018.
2. At least two radiological emergency workers and two emergency vehicles will be monitored and at least one radiological emergency worker and one emergency vehicle will be identified as contaminated and processed in accordance with the controller injects and procedures. (Note: The two workers and one vehicle may be cycled through the stations multiple times to meet demonstration objectives.)
3. Decontamination demonstrations will include full equipment set-up, simulated decontamination actions and/or interview(s) as appropriate, but no water or decontamination solutions will be used during the demonstration.

4. One emergency worker will demonstrate donning and doffing PPE but will not be required to wear for the duration of the evaluation.

Monroe County

This criterion will not be demonstrated during this exercise.

Wayne County

1. Wayne County will demonstrate the emergency worker decontamination center out-of-sequence with the exercise at Brownstown Township Fire Station 4, Wednesday, August 29, 2018 at 1:00 pm.
2. At least two radiological emergency workers and two emergency vehicles will be monitored and at least one radiological emergency worker and one emergency vehicle will be identified as contaminated and processed in accordance with the controller injects and procedures. (Note: The two workers and one vehicle may be cycled through the stations multiple times to meet demonstration objectives.)
3. A Radiological Emergency Worker Break Area will be demonstrated through discussion only. Workers may eat and drink during the unevaluated setup and may use restrooms freely during center set-up and operation.
4. Decontamination demonstrations will include full equipment set-up, simulated decontamination actions and/or interview(s) as appropriate, but no water or decontamination solutions will be used during the demonstration.

Note: This criterion may be re-demonstrated immediately for credit, at the discretion of the evaluator.

Note: The decontamination and washing of vehicles and individuals, if detailed in the county plans, will be simulated.

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.

State of Michigan

This criterion does not apply.

Monroe County

1. Monroe County will demonstrate a congregate care center out-of-sequence with the exercise on Tuesday, June 26, 2108 at 6:00 pm at Summerfield High School and Wednesday, June 27, 2018 at 6:00 pm at Mason High School. Personnel operating the center will not go through alert, mobilization, activation, or shift changes. Appropriate 24/7 staffing will be demonstrated via personnel rosters, call-up lists, etc.

Wayne County

This criterion will not be demonstrated during this exercise.

Note: This criterion may be re-demonstrated immediately for credit, at the discretion of the evaluator.

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.

State of Michigan

During this exercise State Technical Personnel will provide phone support upon request. Phone calls may be simulated through discussions with State personnel who are available in person for the out-of-sequence demonstrations.

Monroe County

Note: This criterion will be demonstrated during an **MS-1 Drill Date TBD fall 2018**, with Promedica Hospital located at 718 North Macomb Street, Monroe, MI 48161.

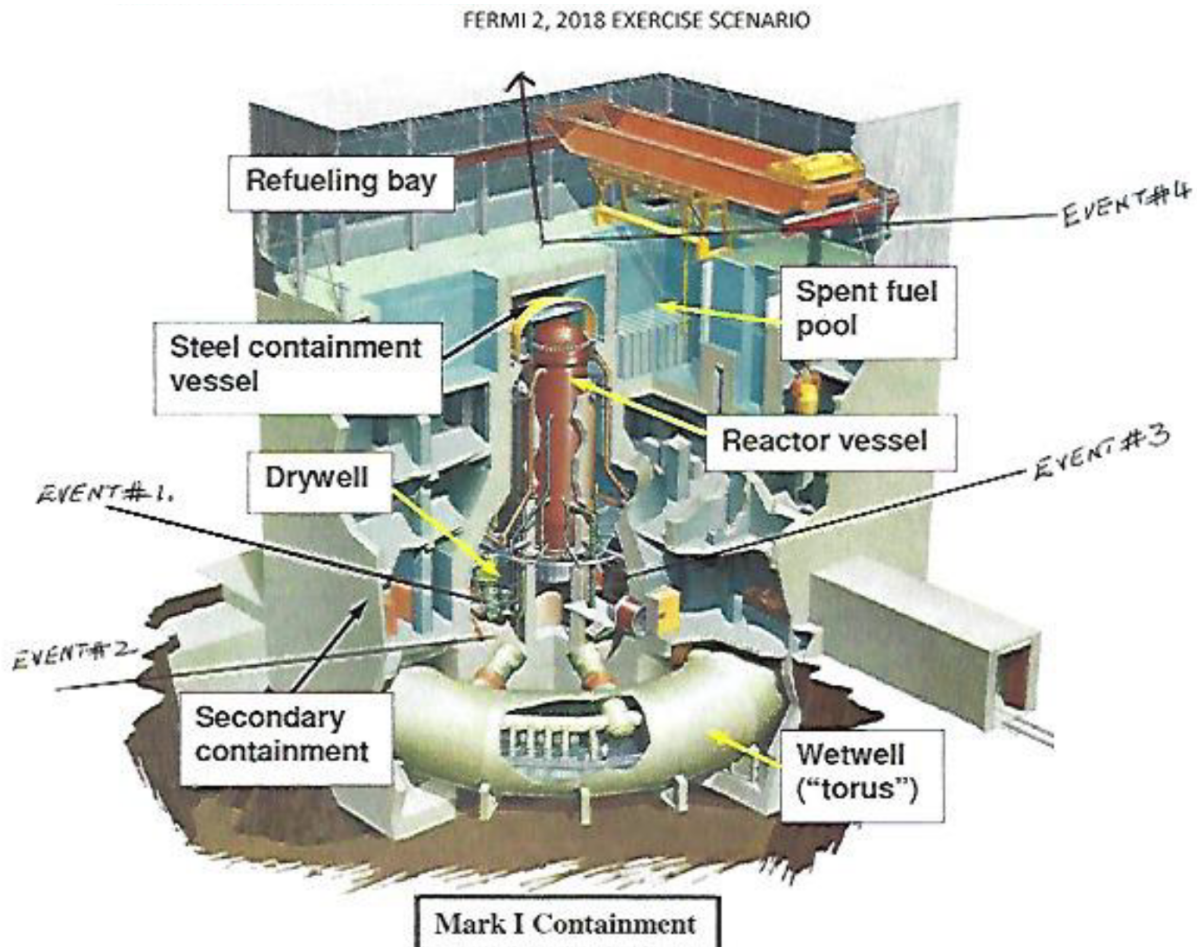
Wayne County

Note: This criterion will be demonstrated during an MS-1 Drill **on November 29, 2018**, at **9:00 am** with Beaumont Hospital-Trenton, South Shore Campus Medical Center located at 5450 Fort Street, Trenton, MI 48183 out-of-sequence.

Note: This criterion may be re-demonstrated immediately for credit, at the discretion of the evaluator.

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APPENDIX F: On-Site/Off-Site Scenario



Event #1- At 0820, Notification Unusual Event ECL declared (EAL SU5.1), Seal failure in Recirculation pump B causes leak into drywell above 25 gpm.

Event #2- At 0850, ALERT ECL declared (EAL FA1.1), drywell pressure above 1.68 psig indicating loss of Reactor Coolant fission product barrier.

Event #3- At 0955, SITE AREA ECL declared (EAL FS1.1), containment radiation monitors read greater than 2250 R/hr indicating loss of fuel clad barrier in addition to the earlier loss of the reactor coolant barrier.

Event #4- At 1055, instrument line into the Torus breaks causing radiation release to the secondary containment and out to the environment indicating loss of reactor containment barrier in addition to earlier loss of the other two fission product barriers.

Prepared for DHS, FEMA Region 5 by R. C. Rodgers ICFI

EVENT #5 At 1110, GENERAL EMERGENCY ECL declared (EAL FG 1.1), initial PAR from Fermi Evacuate Areas 1, 2, 3 and clear lake Area 6.

EVENT #6- At 1155, expanded PAR Evacuate Area 4. As the release rate increases and a dose projection indicates EPA PAG for the thyroid exceeded beyond 5 miles.

EVENT #7- At 1315, predicted end of exercise

From 1115 to 1215, the Field monitoring teams will see increasing closed window readings out to 7 miles. Readings will be as high as 360 mR/hr at 1.5 miles and 70 mR/hr at 7 miles. Significant levels of iodine will also be measured on the iodine cartridge.

Timeline of Key Events.

KEY EVENTS	TIME*
START OF EXERCISE	0700
REACTOR SHUTDOWN	0810
Event #1 UNUSUAL EVENT declared (EAL SU 5.1)	0820**
Event #2 ALERT declared (EAL FA 1.1)	0850**
Event #3 SITE AREA EMERGERNCY (FS 1.1) declared	0955**
Event #4 RADIOLOGICAL RELEASE FROM THE REACTOR BUILDING COMMENCED (monitored & filtered)	1055
Event #5 GENERAL EMERGENCY declaration (EAL FG1.1) Fermi PAR- evacuate Areas 1, 2, 3 and clear lake Area 6, recommend administer KI to the public.	1110**
Event #6 UPGRADE PAR. Fermi dose projection exceeds thyroid PAG at 5 miles, Fermi PAR evacuate Area 4	1155
Event #7 END OF PLUME EXERCISE if all objectives are met. Radiological release was ongoing.	1315

* Clock Times in scenario are approximate; **No later than.

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Off-site Exercise Scenario Timeline

Time	Events	SEOC Actions	Monroe County Actions	Wayne County Actions	JIC Actions	FTC Actions
0700	<ul style="list-style-type: none"> Initial conditions provided to SCR. 					
0820	<ul style="list-style-type: none"> Conditions met for an Unusual Event (SU 5.1) 					
0850	<ul style="list-style-type: none"> Conditions met for Alert (FA-1.1) 					
~0850	<ul style="list-style-type: none"> Local & State notifications made. OSC, TSC, EOF, and ENC activated. 15 minute notification update established. 	<ul style="list-style-type: none"> MSP Operations notified by plant. MSP Operations notifies MSP/EMHSD and MDEQ/DWRPS. SEOC activation begun. MSP Operations notifies Monroe and Wayne Counties. Activation of JIC and FTC begun. SEOC notifies FEMA, Ontario and Ohio. 	<ul style="list-style-type: none"> Dispatch notifies EM & Chairperson. EOC activation begun. Personnel dispatched to JIC 	<ul style="list-style-type: none"> Dispatch notifies EM & Chairperson. EOC activation begun. Personnel dispatched to JIC 	<ul style="list-style-type: none"> JIC activation begun. (SEOC controller inject if necessary) Utility personnel will not demonstrate A/N or facility setup. Monroe and Wayne Counties JIC personnel will be mobilized in accordance with procedures. State JIC personnel will be pre-positioned. 	<ul style="list-style-type: none"> FTC is activated for exercise. (SEOC controller inject if necessary)
~0930	<ul style="list-style-type: none"> Hotline established to SEOC. TSC & OSC operational. 	<ul style="list-style-type: none"> SEOC will be declared operational at about this time. Governor may declare State of Emergency/Disaster Hotlines opened to plant and county. Plant instructed to terminate notifications to Monroe and Wayne Counties. Notifications to counties via SEOC. 	<ul style="list-style-type: none"> EOC activation underway. Hotline opened to SEOC. 	<ul style="list-style-type: none"> EOC activation underway. Hotline opened to SEOC. 		

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Off-site Exercise Scenario Timeline

Time	Events	SEOC Actions	Monroe County Actions	Wayne County Actions	JIC Actions	FTC Actions
0955	<ul style="list-style-type: none"> Criteria met for Site Area Emergency (FS 1.1) 					
~1010	<ul style="list-style-type: none"> Plant notifies SEOC within 15 minutes. 	<ul style="list-style-type: none"> Notifications to counties via SEOC. If not done previously, declare State of Emergency/ Disaster. 	<ul style="list-style-type: none"> EOC operational Siren System and IPaws station placed on standby Reception Decon & Congregate Care Centers placed on standby. 	<ul style="list-style-type: none"> EOC operational Reception Decon & Congregate Care Centers placed on standby. 	<ul style="list-style-type: none"> County personnel arrive at JIC 	<ul style="list-style-type: none"> FTC operational (SEOC controller inject if necessary) Communications initiated with SEOC Field Teams dispatched
~1025					<ul style="list-style-type: none"> State Personnel arrive Communications initiated with SEOC. JIC Operational 	
~1040						
~1110	<ul style="list-style-type: none"> Criteria met for General Emergency (GE) (FG1.1) 					

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Off-site Exercise Scenario Timeline

Time	Events	SEOC Actions	Monroe County Actions	Wayne County Actions	JIC Actions	FTC Actions
~1125	<ul style="list-style-type: none"> Plant notifies SEOC within 15 minutes. Protective action recommendation (PAR) made to State Director via SEOC hotline and fax. 	<ul style="list-style-type: none"> SEOC / TSC Evaluates PAR. Decides on a Protective Action Order (PAO). Issues PAO to counties. Requests federal assistance via FEMA. Issues further PAOs as needed. Notifies JIC, FTC, Ohio and FEMA of GE and PAO 	<ul style="list-style-type: none"> Sound Sirens Issues IPaws message. Implements PAO. Reception Decon & Congregate Care Centers activated. 	<ul style="list-style-type: none"> Implements PAO. Reception Decon & Congregate Care Centers activated. 	<ul style="list-style-type: none"> Informed of GE and PAO by SEOC. Informs media. Issues Press Release 	<ul style="list-style-type: none"> Informed of GE and PAO by SEOC
~1155	<ul style="list-style-type: none"> Plant issues second PAR to SEOC based exceeding PAG's at 5 miles due to radiation release continuing to rise. 	<ul style="list-style-type: none"> Evaluates PAR. Decides on a Protective Action Order (PAO). Issues PAO to county. Notifies JIC, FTC, Ohio, and FEMA of GE and PAO. 	<ul style="list-style-type: none"> Sound Sirens Issues IPaws message Implements PAO. 	<ul style="list-style-type: none"> Implements PAO. 	<ul style="list-style-type: none"> Informed of PAO by SEOC. Informs media. Issues Press Release 	<ul style="list-style-type: none"> Informed of PAO by SEOC
~1315	<ul style="list-style-type: none"> Plant terminates exercise play with State. 	<ul style="list-style-type: none"> Exercise play terminated by SEOC Controller when all objectives demonstrated. 	<ul style="list-style-type: none"> Exercise play terminated by SEOC Controller when all objectives demonstrated. 	<ul style="list-style-type: none"> Exercise play terminated by SEOC Controller when all objectives demonstrated. 		<ul style="list-style-type: none"> Exercise play terminated by SEOC Controller when all objectives demonstrated.
~1330					<ul style="list-style-type: none"> Exercise play terminated by SEOC Controller when all objectives demonstrated. 	

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