

SEP 1 6 2010

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

To Whom It May Concern:

Enclosed is one copy of the Final Report for the Radiological Emergency Preparedness (REP) Partial Participation Plume Pathway Exercise conducted on June 8, 2010, for the Fermi 2 Nuclear Power Plant. The State of Michigan, and Monroe and Wayne Counties participated in this exercise. The utility owner, DTE Energy, and operator, Detroit Edison, also participated in this exercise.

There were no Deficiencies for any jurisdiction during this exercise.

There was one Area Requiring Corrective Action (ARCA) and one Planning Issue identified for the State of Michigan.

The ARCA, Number 23-10-3a1-A-02, was identified at the Michigan Field Team Center under Criterion 3.a.1 - Implementation of Emergency Worker Exposure Control, whereby the Field Team Center Coordinator, the two Health Physics Support staff and the Dispatcher at the Field Team Center were not issued direct-reading dosimetry according to their procedures. This issue was re-demonstrated during the exercise, and the corrective action was successfully demonstrated.

The Planning Issue, Number 23-10-5a1-P-01, was identified at the State Emergency Operations Center under Criterion 5.a.1 - Activation of the Prompt Alert and Notification System, whereby the primary alerting and notification of the public between the State and Monroe and Wayne Counties involved several cumbersome processes, and as a result, the time of the Protective Action Order at 1036 hours through the completion of the EAS broadcast at 1102 hours was 26 minutes.

One prior ARCA for the State of Michigan, Number 44-08-5.b.1-A-01, regarding the issue of two news releases with incorrect and/or incomplete information remains unresolved.

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There were no ARCAs and one Planning Issue identified during this exercise for Monroe County.

The Planning Issue, Number 23-10-5a1-P-03, was identified at the Monroe County Emergency

Operations Center under Criterion 5.a.1 - Activation of the Prompt Alert and Notification System, whereby the primary alerting and notification of the public between the State and Monroe and Wayne Counties involved several cumbersome processes, and as a result, the time of the Protective Action Order at 1036 hours through the completion of the EAS broadcast at 1102 hours was 26 minutes.

One ARCA and one Planning Issue were identified for Wayne County.

The ARCA, Number 23-10-3b1-A-05, was identified at the Wayne County Traffic and Access Control Dosimetry Briefing under Criterion 3.b.1 - Implementation of KI Decision, whereby the Health Operations Officer instructed TACP personnel to "run the course" when taking KI - i.e., to take all of the 14 tablets (one per 24-hour period) contained in the KI bottle issued to them once they start taking KI. This instruction was contrary to the instructions provided in the PATIENT PACKAGE INSERT for THYRO-BLOCK KI, which informs the user that the individual will probably be told not to take the drug for more than 10 days due to the increased risk of side-effects.

The Planning Issue, Number 23-10-5a1-P-04, was identified at the Wayne County Emergency Operations Center under Criterion 5.a.1 - Activation of the Prompt Alert and Notification System, whereby the primary alerting and notification of the public between the State, Monroe and Wayne Counties involved several cumbersome processes, and as a result, the time of the Protective Action Order at 1036 hours through the completion of the EAS broadcast at 1102 hours was 26 minutes.

A detailed discussion of these issues can be found in Part IV of this report.

Based on the results of the June 8, 2010 exercise, the offsite radiological emergency response plans and preparedness for the State of Michigan, and Monroe and Wayne Counties, site-specific to the Fermi 2 Nuclear Power Plant can be implemented, and are adequate to provide reasonable assurance that appropriate measures can be taken offsite to protect the health and safety of the public in the event of a radiological emergency at the site.

Therefore, the Title 44 CFR, Part 350, approval of the offsite radiological emergency response plans and preparedness for the State of Michigan, and Monroe and Wayne Counties, granted on March 9, 1987, remains in effect. Copies of this Report were transmitted to the FEMA National Office, NRC Region III, and the State of Michigan.

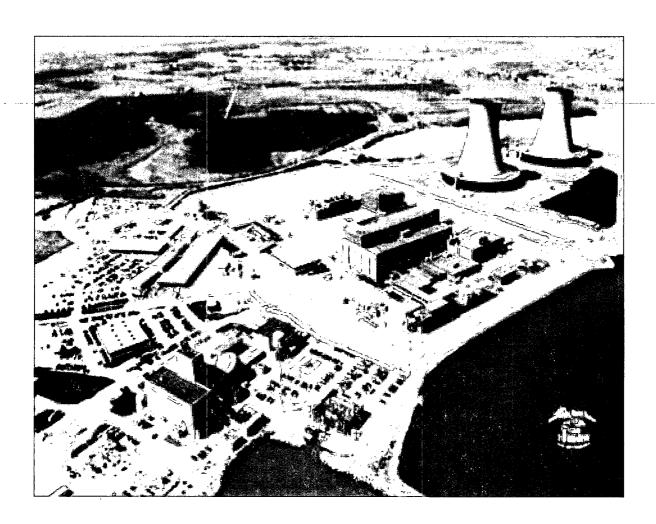
NRC Headquarters Document Control Desk Page 3

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

Sincerely

Andrew Velasquez III Regional Administrator

Enclosure (1)



Enrico Fermi 2 Nuclear Power Plant

After Action Report/ Improvement Plan

Exercise Date - June 08, 2010 Radiological Emergency Preparedness (REP) Program



Published September 08, 2010

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Enrico Fermi 2 Nuclear Power Plant

After Action Report/Improvement Plan

Published September 08, 2010

Contents **Executive Summary** 5 Section 1: Exercise Overview 11 11 1.1 Exercise Details 11 1.2 Exercise Planning Team Leadership 1.3 Participating Organizations 13 Section 2: Exercise Design Summary 16 16 2.1 Exercise Purpose and Design 16 2.2 Exercise Objectives, Capabilities and Activities 16 2.3 Scenario Summary Section 3: Analysis of Capabilities 17 17 3.1 Exercise Evaluation and Results 17 3.2 Summary Results of Exercise Evaluation 25 3.3 Criteria Evaluation Summaries 25 3.3.1 Michigan Jurisdictions 25 3.3.1.1 Initial Notification Point 25 3.3.1.2 Michigan State Emergency Operations Center 26 3.3.1.3 Technical Support Group 26 3.3.1.4 Michigan Field Team Center - Fermi 2 3.3.1.5 MDNRE Field Team 1 27 28 3.3.1.6 MDNRE Field Team 2 28 3.3.1.7 MDNRE Field Team 3 28 3.3.1.8 MDNRE FTC TACP Dosimetry Briefing 28 3.3.1.9 FTC - TACP Demonstration - Fermi 2 29 3.3.1.10 Michigan Field Team Center EW Mon/Decon -29 3.3.1.11 Field Team Center EW Equip/Vehicle Mon/Decon -Fermi 2

3.3.1.12 State Liaison - Monroe County Emergency Operations Center	29
3.3.1.13 State Liaison - Wayne County Emergency Operations Center	30
3.3.1.14 MDNRE Rep - Wayne County Community College District	30
3.3.1.15 MDNRE Rep - Summerfield High School	30
3.3.1.16 MDNRE Rep - Mason High School	30
3.3.1.17 MDNRE Representative - Oakwood Southshore Med Ctr	31
3.3.2 Risk Jurisdictions	31
3.3.2.1 Monroe County Initial Notification Point	31
3.3.2.2 Monroe County Emergency Operations Center - Fermi 2	31
3.3.2.3 Monroe County Emergency Management Public Inquiry Hotline	32
3.3.2.4 Monroe County Traffic and Access Control Dosimetry Briefing	33
3.3.2.5 Monroe County Traffic and Access Control Demonstration	33
3.3.2.6 Monroe County Health Department - Dosimetry	33
3.3.2.7 Evacuee Vehicle Mon/Decon - Summerfield High School	33
3.3.2.8 Evacuee Mon/Decon - Summerfield High School	34
3.3.2.9 Evacuee Registration - Summerfield High School	34
3.3.2.10 Congregate Care - Summerfield High School	34
3.3.2.11 Evacuee Vehicle Mon/Decon - Mason High School	34
3.3.2.12 Evacuee Mon/Decon - Mason High School	35
3.3.2.13 Evacuee Registration - Mason High School	35
3.3.2.14 Congregate Care - Mason High School	35
3.3.2.15 EV-2 - Airport Community Schools	35
3.3.2.16 Wayne County Initial Notification Point - Fermi 2	36
3.3.2.17 Wayne County EOC	36
3.3.2.18 WC Traffic and Access Control DB	37
3.3.2.19 Wayne County Traffic and Access Control	38

Unclassified Radiological Emergency Preparedness Program (REP)

After Action Re	port/Improvement	Plan
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Enrico Fermi 2 Nuclear Power Plant

3.3.2.20 Emergency Alert System Radio Station WJR AM-	39
3.3.2.21 Evac Veh Mon/Decon WCCCD MIPSE	39
3.3.2.22 Evac Mon/Decon WCCCD MIPSE	39
3.3.2.23 Evacuee Registration WCCCD MIPSE	. 39
3.3.2.24 Congregate Care WCCCD MIPSE	40
3.3.2.25 MS-1 Drill Transportation OSMC	. 40
3.3.2.26 MS-1 Drill Hospital OSMC	40
Section 4: Conclusion	41
Appendix A: Improvement Plan	43
Appendix B: Best Practices	45
Appendix C: Exercise Timeline	46
Appendix D: Exercise Evaluators and Team Leaders	47
Appendix E: Acronyms and Abbreviations	50
Appendix F: Exercise Plan	55
Appendix G: Exercise Scenario	7(

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EXECUTIVE SUMMARY

On June 8, 2010, a Radiological Emergency Preparedness (REP) Full Participation Plume Exposure Pathway Exercise was conducted in the 10-mile Emergency Planning Zone (EPZ) around the Enrico Fermi 2 Nuclear Power Plant by the U.S. Department of Homeland Security (DHS)/Federal Emergency Management Agency (FEMA) Region V. The purpose of this exercise was to assess the level of State and local preparedness in responding to a radiological emergency. This exercise was held in accordance with DHS/FEMA's policies and guidance concerning the exercise of State and local Radiological Emergency Response Plans (RERPs) and procedures.

The most recent exercise at this site was conducted on May 20, 2008. The qualifying emergency preparedness exercise was conducted on February 2, 1982.

The DHS/FEMA wishes to acknowledge the efforts of the many individuals who participated in this exercise. In the State of Michigan, the risk counties of Monroe and Wayne participated along with the State government.

Protecting the public health and safety is the full-time job of some of the exercise participants and an additional assigned responsibility for others. Still others have willingly sought this responsibility by volunteering to provide vital emergency services to their communities. Cooperation and teamwork on the part of all the participants was evident during this exercise.

This Final Report contains the evaluation of the biennial exercise and the evaluation of the following out-of-sequence activities: Michigan Department of Natural Resources and Environment activities at Monroe and Wayne County; Evacuee Vehicle Monitoring and Decontamination; Evacuee Monitoring, Decontamination and Registration; and Congregate Care Centers.

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

There were no Deficiencies for any jurisdiction during this exercise.

There was one Area Requiring Corrective Action (ARCA) and one Planning Issue identified for

the State of Michigan.

The ARCA, Number 23-10-3a1-A-02, was identified at the Michigan Field Team Center under Criterion 3.a.1 - Implementation of Emergency Worker Exposure Control, whereby the Field Team Center Coordinator, the two Health Physics Support staff and the Dispatcher at the Field Team Center were not issued direct-reading dosimetry according to their procedures. This issue was re-demonstrated during the exercise, and the corrective action was successfully demonstrated.

The Planning Issue, Number 23-10-5a1-P-01, was identified at the State Emergency Operations Center under Criterion 5.a.1 - Activation of the Prompt Alert and Notification System, whereby the primary alerting and notification of the public between the State and Monroe and Wayne Counties involved several cumbersome processes, and as a result, the time of the Protective Action Order at 1036 hours through the completion of the EAS broadcast at 1102 hours was 26 minutes.

One prior ARCA for the State of Michigan, Number 44-08-5.b.1-A-01, regarding the issue of two news releases with incorrect and/or incomplete information remains unresolved.

There were no ARCAs and one Planning Issue identified during this exercise for Monroe County.

The Planning Issue, Number 23-10-5a1-P-03, was identified at the Monroe County Emergency Operations Center under Criterion 5.a.1 - Activation of the Prompt Alert and Notification System, whereby the primary alerting and notification of the public between the State and Monroe and Wayne Counties involved several cumbersome processes, and as a result, the time of the Protective Action Order at 1036 hours through the completion of the EAS broadcast at 1102 hours was 26 minutes.

One ARCA and one Planning Issue were identified for Wayne County.

The ARCA, Number 23-10-3b1-A-05, was identified at the Wayne County Traffic and Access Control Dosimetry Briefing under Criterion 3.b.1 - Implementation of KI Decision, whereby the Health Operations Officer instructed TACP personnel to "run the course" when taking KI - i.e., to take all of the 14 tablets (one per 24-hour period) contained in the KI bottle issued to them

once they start taking KI. This instruction was contrary to the instructions provided in the PATIENT PACKAGE INSERT for THYRO-BLOCK KI, which informs the user that the individual will probably be told not to take the drug for more than 10 days due to the increased risk of side-effects.

The Planning Issue, Number 23-10-5a1-P-04, was identified at the Wayne County Emergency Operations Center under Criterion 5.a.1 - Activation of the Prompt Alert and Notification System, whereby the primary alerting and notification of the public between the State, Monroe and Wayne Counties involved several cumbersome processes, and as a result, the time of the Protective Action Order at 1036 hours through the completion of the EAS broadcast at 1102 hours was 26 minutes.

INTRODUCTION - EXERCISE BASIS

On December 7, 1979, the President directed FEMA to assume the lead responsibility for all offsite nuclear planning and response. DHS/FEMA's activities are conducted pursuant to 44 Code of Federal Regulations (CFR) Parts 350 "Review and Approval of State and Local Radiological Emergency Plans and Preparedness", 351 "Radiological Emergency Planning and Preparedness" and 352 "Commercial Nuclear Power Plants: Emergency Preparedness Planning." These regulations are a key element in the Radiological Emergency Preparedness (REP) Program that was established following the Three Mile Island Nuclear Station accident in March 1979. The FEMA Rule 44 CFR 350 establishes the policies and procedures for DHS/FEMA's initial and continued approval of State and local governments radiological emergency planning and preparedness for commercial nuclear power plants. This approval is contingent, in part, on State and local governments' participation in joint exercises with licensees.

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

- Taking the lead in offsite emergency planning and in the review and evaluation of RERPs and procedures developed by State and local governments;
- Determining whether such plans and procedures can be implemented on the basis of observation and evaluation of exercises of the plans and procedures conducted by State and local governments;

- Responding to requests by the U.S. Nuclear Regulatory Commission (NRC) pursuant to the Memorandum of Understanding between the NRC and FEMA dated June 17, 1993 (Federal Register, Vol. 58, No. 176, September 14, 1993); and
- Coordinating the activities of Federal agencies with responsibilities in the radiological emergency planning process:
- 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.

Formal submission of the RERPs for the Enrico Fermi 2 Nuclear Power Plant to FEMA Region V by the State of Michigan and involved local jurisdictions occurred on March 22, 1982. Formal approval of these RERPs was granted by FEMA on March 9, 1987, under 44 CFR 350.

A REP Full Participation Plume Exposure Pathway Exercise was conducted on June 8, 2010, 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 health and safety during a radiological emergency involving the Enrico Fermi 2 Nuclear Power Plant. The purpose of this exercise report is to present the exercise results and findings on the performance of the Offsite Response Organizations (ORO) during a simulated radiological emergency.

The findings presented in this report are based on the evaluations of the Federal evaluation team, with final determinations made by the DHS/FEMA Region V RAC Chairperson, and approved

by the DHS/FEMA Headquarters.

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

- NUREG-0654/FEMA-REP-1, Rev. 1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," November 1980;
- FEMA-REP-14, "Radiological Emergency Preparedness Exercise Manual," September 1991; and
- FEMA "Radiological Emergency Preparedness: Exercise Evaluation Methodology; Notice" as published in the Federal Register Notice, Vol. 67, No. 80, dated April 25, 2002.

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

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

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

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

EMERGENCY PLANNING ZONE (EPZ) DESCRIPTION

The Enrico Fermi 2 Nuclear Power Plant is comprised of approximately 1,120 acres of land owned by DTE Energy. The plant operator is Detroit Edison Company. The site is bounded on the north by Swan Creek, on the east by Lake Erie, on the south by Pointe Aux Peaux Road, and on the west by Toll Road. Entrance to the site is from Enrico Fermi Drive (a private road owned by Edison) to the west, and from Pointe Aux Peaux Road to another private road owned by Edison to the south.

The plant is approximately six miles northeast of Monroe, Michigan; 30 miles southwest of downtown Detroit, Michigan; and 25 miles northeast of downtown Toledo, Ohio. The latitude of the site is 41° 57′ 48″ north and the longitude is 83° 15′ 31″ west. Site elevations range from the level of Lake Eric, on the eastern edge of the site, to approximately 25 feet above the lake level, on the western edge of the site.

The 10-mile EPZ includes parts of Monroe and Wayne Counties in Michigan; parts of Lake Erie; and the southern tip of Essex County, (Bay Point) Canada. Most of the 10-mile EPZ lies within Monroe County. Coordinated efforts occur between the two counties, which are divided into five Protective Action Areas. The following jurisdictions are located within the 10-mile EPZ: Ash Township, Carleton Village, Berlin Township, Estral Beach Village, Exeter Township, South Rockwood Village, Frenchtown Township, Monroe City, Monroe Township, Raisinville Township, Brownstown Township, Gibraltar City, Flat Rock City, and Rockwood City. The population in the 10-mile EPZ, based on the 2000 census, is 88,897.

Land use within the EPZ is diverse. About 55 percent of the land is farmland; the majority of agricultural land is located in Monroe County. The portion of Wayne County nearest to Detroit is a growing residential suburb. Twelve state parks and recreational areas, and several light industries are located within the 10-mile EPZ.

There are three major roads within 10 miles of the plant, Interstates 75 and 275, and U.S. Route 24. Their closest approach to the plant is 4.1 miles, 4.2 miles and 5.8 miles, respectively. Five railroad lines operate within 10 miles of the plant. These include the Canadian National Railroad, the Norfolk Southern Railroad, the Chesapeake and Ohio Railroad, the Detroit Toledo and Ironton Railroad, and the Detroit and Toledo Shore Line Railroad. There are no major airports within 15 miles of the site.

SECTION 1: EXERCISE OVERVIEW

1.1 Exercise Details

Exercise Name

Enrico Fermi 2 Nuclear Power Plant

Type of Exercise

Plume

Exercise Date

June 08, 2010

Program

Department of Homeland Security/FEMA Radiological Emergency Preparedness Program

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 Enrico Fermi 2 Nuclear Power Plant exercise:

State Jurisdictions

Office of the Governor

Michigan Department of Agriculture

Michigan Department of Attorney General

Michigan Department of Community Health

Michigan Department of Natural Resources and Environment

Michigan Department of Human Services

Michigan Department of Information Technology

Michigan Department of Labor and Economic Growth

Michigan Department of Technology, Management and Budget

Michigan Supreme Court

Michigan Department of Military Affairs

Michigan Office of Services to the Aging

State Fire Marshal

Michigan Department of State Police

Michigan State Police Emergency Management and Homeland Security Division

Michigan Department of Transportation

Michigan State University Extension Administration - Agriculture

Risk Jurisdictions

Monroe County Board of Commissioners

Monroe County Sheriff's Office

Monroe County Emergency Management Division

Monroe County Health Department

Monroe County Central Dispatch

Monroe County Intermediate School District

Monroe County Fire Association

Monroe County Planning Department

Monroe County Road Commission

Monroe County Drain Commission

Monroe County Department of Human Resources

Monroe County Commission on Aging

Monroe Charter Township

Erie Fire Department

Summerfield Fire Department

Wayne County Executive

Wayne County Sheriff's Department

Wayne County Homeland Security and Emergency Management

Wayne County Department of Public Health and Human Services

Wayne County Department of Public Services

Wayne County Department of Technology

Wayne County Regional Educational Services Agency

Wayne County Community College District

Wayne County Airport Authority Central Communications

Michigan 1 Disaster Medical Assistanc Team

Region 2 South Medical Bio-Defense Network

Wayne County Downriver HazMat

Brownstown Township

Concorde Emergency Medical Services

Dearborn Community Emergency Response Team

Flat Rock Township

Flat Rock Fire Department

Garden City Fire Department

City of Gibralter Police Department

Huron Township Community Emergency Response Team

City of Rockwood

Detroit Metro Police Department

Private Organizations

American Red Cross

Detroit Edison/DTE Energy

Health Emergency Medical System

Oakwood Southshore Medical Center

Radio Amateur Civil Emergency Service

Radio Station WJR

Salvation Army

SECTION 2: EXERCISE DESIGN SUMMARY

2.1 Exercise Purpose and Design

The DHS/FEMA Region V Office evaluated the Enrico Fermi 2 Nuclear Power Plant Radiological Emergency Preparedness (REP) Full Participation Plume Exposure Pathway Exercise conducted on June 8, 2010, to assess the capabilities of local emergency preparedness organizations in implementing their Radiological Emergency Response Plans (RERP) and procedures to protect the public health and safety during a radiological emergency involving Enrico Fermi 2 Nuclear Power Plant. The purpose of this report is to present the results and findings on the performance of the Offsite Response Organizations (OROs) during a simulated radiological emergency.

2.2 Exercise Objectives, Capabilities and Activities

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

2.3 Scenario Summary

Appendix G "Exercise Scenario," contains a summary of the Exercise Scenario, a simulated sequence of events that was used as the basis for invoking emergency response actions by Offsite Response Organizations (OROs) in the Enrico Fermi 2 Nuclear Power Plant REP Full Participation Plume Exposure Pathway exercise on June 8, 2010.

This exercise scenario was submitted by the State of Michigan and DTE Energy and accepted by DHS/FEMA Region V on April 19, 2010.

During the exercise, in addition to information and data provided through the Enrico Fermi 2 Nuclear Power Plant onsite scenario, controllers from the State of Michigan provided "inject messages" containing scenario events and/or relevant data to those persons or locations who would normally receive notification of such events. These inject messages were the method used for invoking additional specific response actions by OROs.

The details of the scenario are included in Appendix G "Exercise Scenario."

SECTION 3: ANALYSIS OF CAPABILITIES

3.1 Exercise Evaluation and Results

Contained in this section are the results and findings of the evaluation of all jurisdictions and functional entities that participated in the June 8, 2010, REP Full Participation Plume Exercise to test the offsite emergency response capabilities of State and local governments in the 10-mile EPZ surrounding the Fermi 2 Nuclear Power Plant.

Each jurisdiction and functional entity was evaluated based on its demonstration of exercise criteria delineated in Federal Register Notice: Vol. 67, No. 80, dated April 25, 2002. Detailed information on the exercise criteria and the extent-of-play agreement used in this exercise are found in Appendix F of this report.

3.2 Summary Results of Exercise Evaluation

The matrix presented in Table 3.1, on the following page(s), presents the status of all exercise criteria from Federal Register Notice: Vol. 67, No. 80, dated April 25, 2002, which were scheduled for demonstration during this exercise by all participating jurisdictions and functional entities. Exercise criteria are listed by number and the demonstration status of those criteria are indicated by the use of the following letters:

M – Met (No Deficiency or ARCA assessed and no unresolved ARCAs from prior exercises)

D - Deficiency assessed

A - ARCA(s) assessed or unresolved ARCA(s) from prior exercise(s)

N – Not Demonstrated

Blank – Not scheduled for demonstration

Table 3.1 - Summary of Exercise Evaluation (4 pages)

Table 5.1 - Summary of Exercise Eval	uuti	<u> </u>	(, 1	~~5	,00,							
DATE: 2010-06-08 SITE: Enrico Fermi 2 Nuclear Power Plant, MI M: Met, A: ARCA, D: Deficiency, P: Plan Issue, N: Not Demonstrated		State INP	Michigan SEOC	Tech Support Grp	Field Team Center (FTC) - Fermi 2	MDNRE Field Team 1	MDNRE Field Team 2	MDNRE Field Team 3	FTC TACP Dosimetry Briefing	FTC - TACP Demonstration	FTC EW Mon/Decon - Fermi 2	FTC EW Equip/Veh Mon/Decon - Fermi 2
Emergency Operations Management	1 4				\$30 	35	<u> </u>	38				$\mathcal{N}(\mathcal{X})$
Mobilization	la1	М	М	М	М							
Facilities	1b1										П	
Direction and Control	lcl		М		М							
Communications Equipment	ldl	М	M	М	M	М	M	M	-	М	М	М
Equip & Supplies to support operations	lel	171	M	M	M		M	M		M	M	M
Protective Action Decision Making	101	1	IVI	101	101	IVI	1V1	101	387			IVI
	2al	: 649	M		\$ C.56	5551.		MX	53.8 (+)	125000	55-F- 87.6	488.50
Emergency Worker Exposure Control	2b1		171		M	-		-				
Radiological Assessment and PARs		-	M	M	IVI							-
Decisions for the Plume Phase -PADs	2b2						-					\neg
PADs for protection of special populations	2c1		M	M								
Rad Assessment and Decision making for the Ingestion Exposure Pathway	2d1						-					-
Rad Assess/Decision making concerning Relocation, Reentry, and Return Protective Action Implementation	2e1		in.	jej j		. 54	200	£.7371	0.000	111000	100	\$20.00
		2,60	:13	340	248800	3.6	3.5	Wajt.	-			
Implementation of emergency worker exposure control	3a1				M		M				M	M
Implementation of KI decision	3b1		M		M	M	M	M	M	M	\vdash	
Implementation of protective actions for special populations - EOCs	3c1					_		-			Н	
Implementation of protective actions for Schools	3c2	<u> </u>				-	_				\vdash	
Implementation of traffic and access control	3d1		M							M	Ш	
Impediments to evacuation are identified and resolved	3d2	<u> </u>									\vdash	Щ
Implementation of ingestion pathway decisions - availability/use of info	3e1											Ш
Materials for Ingestion Pathway PADs are available	3e2	<u> </u>					<u> </u>					
Implementation of relocation, re-entry, and return decisions	3f1		2.88,561	.bys.	545.860 - 5	Abitabalo	Sindon's	18,07	· **003.000	STEETIN		Securities
Field Measurement and Analysis	21.64		M.	oder.	. 101		ı			isibaka.	All All	
Adequate Equipment for Plume Phase Field Measurements	4a1					M	M	M				Ш
Field Teams obtain sufficient information	4a2_				M		lacksquare					\square
Field Teams Manage Sample Collection Appropriately	4a3					M	M	M				
Post plume phase field measurements and sampling	4b1											
Laboratory operations	4c1											
Emergency Notification and Public Info		4 j s		\$ 500 X		ÇQ		200				103
Activation of the prompt alert and notification system	5a1		P									
Activation of the prompt alert and notification system - Fast Breaker	5a2										Ш	Ш
Activation of the prompt alert and notification system - Exception areas	5a3					<u> </u>	L					
Emergency information and instructions for the public and the media	5b1		М	L			 			<u> </u>		
Support Operations/Facilities	3.	<u> </u>		\$ 2.4	gľaí		- 3	16/6	93	% 5		53
Mon / decon of evacuees and emergency workers, and registration of evacuees	6a1	<u> </u>						l			M	

UnclassifiedRadiological Emergency Preparedness Program (REP)

After Action Report/Improvement Plan

Enrico Fermi 2 Nuclear Power Plant

Mon / decon of emergency worker equipment	6b1						М
Temporary care of evacuees	6c1						
Transportation and treatment of contaminated injured individuals	6d1						

Table 3.1 - Summary of Exercise Evaluation (Continued. page 2/4)

Table 5.1 - Building of Exercise Evaluation	(00	,1111	IIu	<i>.</i>	Pue							
DATE: 2010-06-08 SITE: Enrico Fermi 2 Nuclear Power Plant, MI M: Met, A: ARCA, D: Deficiency, P: Plan Issue, N: Not Demonstrated		State Liaison - MCEOC	State Liaison - WCEOC	MDNRE Rep - WCCCD MIPSE	MDNRE Rep - Summerfield HS	MDNRE Rep - Mason HS	MDNRE Rep - OSMC MS-1	MC Initial Notification Point	MCEOC	EMPIH	MC - TACDB	Monroe County TACP
Emergency Operations Management	MARK	138			1 3 3 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5		ž.,		 	* .	200	
Mobilization	lal							М	М			
Facilities	1b1											\neg
Direction and Control	lcl								М			\neg
Communications Equipment	1d1			М	М	М	M	М				М
Equip & Supplies to support operations	lel			M	M		М		M		\neg	М
Protective Action Decision Making	101	35				50			141		- 2	
Emergency Worker Exposure Control	2al	М		3,							寸	\neg
	2b1	М					_			H		\dashv
Radiological Assessment and PARs	2b2	101	101	<u> </u>				_		\vdash	-	\dashv
Decisions for the Plume Phase -PADs		\vdash	\vdash			-			14	\vdash	\dashv	\dashv
PADs for protection of special populations	2c1			_					M		\dashv	\dashv
Rad Assessment and Decision making for the Ingestion Exposure Pathway	2d1		_	 		_					\dashv	\dashv
Rad Assess/Decision making concerning Relocation, Reentry, and Return Protective Action Implementation	2e1	ivietŠ8				MAG.	2 53	W.		1 3		33
		190000	90000	*********	0,1,120	80,		Acres	- 3	$\overline{}$		
Implementation of emergency worker exposure control	3a1	-	_	M	M	M	IVI				M	
Implementation of KI decision	3b1	-	-	<u> </u>						\vdash	M	-IVI
Implementation of protective actions for special populations - EOCs	3c1	-	-	-					M			-
Implementation of protective actions for Schools	3c2	-	-		_				M	\vdash		\exists
Implementation of traffic and access control	3d1			<u> </u>					M	\vdash		М
Impediments to evacuation are identified and resolved	3d2	-			_				M		\dashv	\dashv
Implementation of ingestion pathway decisions - availability/use of info	3e1	-			\vdash							
Materials for Ingestion Pathway PADs are available	3e2 ·	-		_	\vdash	ļ	_			\vdash	\dashv	
Implementation of relocation, re-entry, and return decisions	3f1	1.0		1,18	-	_						
Field Measurement and Analysis	Barry.		\$ 0 H	SM	120	<u> </u>				\vdash	\dashv	
Adequate Equipment for Plume Phase Field Measurements	4a1	\vdash			<u> </u>	ļ				\vdash	\dashv	\dashv
Field Teams obtain sufficient information	4a2	-	_		 .					\vdash	\dashv	
Field Teams Manage Sample Collection Appropriately	4a3			-						-	\dashv	-
Post plume phase field measurements and sampling	4b1	-	<u> </u>	_	ļ		-			$\vdash \vdash$	\dashv	-
Laboratory operations	4c1	acress dis	508.559v		1.000	52	-2000	\$8,5%	Zeroin.	->.26	28 VA	1
Emergency Notification and Public Info			1	9.000	enîş	66300		HL-F				1950
Activation of the prompt alert and notification system	5al	M	M				ļ		P	$\vdash \vdash$	\dashv	\dashv
Activation of the prompt alert and notification system - Fast Breaker	5a2	_	_	<u> </u>	ļ	ļ	_		-			
Activation of the prompt alert and notification system - Exception areas	5a3	<u> </u>								$\vdash \vdash$	\dashv	
Emergency information and instructions for the public and the media	5b1	M	M		ļ			×.	M	M		
Support Operations/Facilities	15.5	KW	200		£51+2	7.34	Silver 1	ď.		\sqcup	.	
Mon / decon of evacuees and emergency workers, and registration of evacuees	6a1	<u> </u>	<u> </u>	M	M	M	<u> </u>			\sqcup	\dashv	
Mon / decon of emergency worker equipment	6b1	<u> </u>			<u> </u>	<u> </u>			L	\sqcup	_	
Temporary care of evacuees	6c1	<u> </u>			<u> </u>				<u> </u>			
Transportation and treatment of contaminated injured individuals	6d1		L	L			M					

Table 3.1 - Summary of Exercise Evaluation (Continued. page 3/4)

Table 5.1 - Summary of Exercise Evaluation	(CC)	1111	IIuc	æ.	Puε	50 -	" "	'				
DATE: 2010-06-08 SITE: Enrico Fermi 2 Nuclear Power Plant, MI M: Met, A: ARCA, D: Deficiency, P: Plan Issue, N: Not Demonstrated		MCHD Dosimetry	EVAC VEH MON/DECON - Summerfield HS	EVAC MON/DECON - Summerfield HS	EVAC REG - Summerfi	CONG CARE - Summerfield HS	EVAC VEH MON/DECON - Mason HS	EVAC MON/DECON - Mason HS	EVAC Registration - Mason HS	CONG CARE - Mason HS	EV-2 - Airport Community Schools	WC Initial Notification Point
Emergency Operations Management	water of the con-		\$ Su	V 1.64	ijŶ,Ŷĸ	****	و ا ^{لز} وياً	Selection	71	ر ان	44	5
Mobilization	lal											М
Facilities	1b1											
Direction and Control	1c1											
Communications Equipment	1d1		М	м	М	м	M	м	M	M	М	М
Equip & Supplies to support operations	lel	М			М	M		-		M	M	171
Protective Action Decision Making		1,181,4 1,000,4	.35 7° 1895 (1.77	. 2.	Printer Section	111	765 N	(10 pt)	30.75	maga with	deus,
Emergency Worker Exposure Control	2al	Constru	7990	2	7.7.7			,			**********	
Radiological Assessment and PARs	2b1			_			-					
Decisions for the Plume Phase -PADs	2b2											
PADs for protection of special populations	202 2c1											
Rad Assessment and Decision making for the Ingestion Exposure Pathway	2d1		-				<u> </u>		-			
Rad Assess/Decision making concerning Relocation, Reentry, and Return	2e1			-	-	-	┢		 	-		 -
Protective Action Implementation	201 1 jai 4	\$ ·	5:50°	, 4	Sirke.	4.			, i.e. ;	, . , .	(1 ₀ 4	,
Implementation of emergency worker exposure control	3al	-	М	М	M		М	М	<u> </u>		М	
Implementation of KI decision	3b1		IVI	101	IVI		IVI	IVI	IVI	l	M	<u> </u>
	301 3c1	-		-	ŀ	-	-	H		·	IVI	Ė
Implementation of protective actions for special populations - EOCs	3c1		-	ļ		-	-	 	H		14	-
Implementation of protective actions for Schools		-	-	 		-	-	1			M	
Implementation of traffic and access control	3d1							-		-		
Impediments to evacuation are identified and resolved	3d2					-	-		-	-	\vdash	-
Implementation of ingestion pathway decisions - availability/use of info	3el	 	├-	-			-	-	-	-	├	
Materials for Ingestion Pathway PADs are available	3e2		_	H		ļ		ļ				
Implementation of relocation, re-entry, and return decisions	3f1	:20	dig :	ļ.,	-	12.		1 5 (3)	(2),E		j 14 9	
Field Measurement and Analysis	73.	1750	135	1,000	<u> </u>	35.	5.00	130	1889	30,00	741	17.3
Adequate Equipment for Plume Phase Field Measurements	4al			├		-	_	-	-			
Field Teams obtain sufficient information	4a2	_	-	-	-		<u> </u>	 	_			
Field Teams Manage Sample Collection Appropriately	4a3	ļ	-	ļ			<u> </u>	ļ	_			<u> </u>
Post plume phase field measurements and sampling	4b1	ļ			ļ	_	<u> </u>		_			<u> </u>
Laboratory operations	4c1	ļ	_	_	~47				34	. , .	170	
Emergency Notification and Public Info	1,85	-"	137			*,	N/s	13.5	- (24) - (24)		*	100
Activation of the prompt alert and notification system	5a1	 	 	<u> </u>	 	 	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	ـــــ
Activation of the prompt alert and notification system - Fast Breaker	5a2	_	_	\vdash	<u> </u>	_	ļ	_				<u> </u>
Activation of the prompt alert and notification system - Exception areas	5a3	_	<u> </u>	<u> </u>	<u> </u>			<u> </u>				<u> </u>
Emergency information and instructions for the public and the media	5b1		<u> </u>	ļ	ļ.,			<u> </u>		_		<u> </u>
Support Operations/Facilities	ed 4 i	5,3.	17.45.4	NO.	1100	1856.14	A CONT	**	<u> </u>	;;	***	والماية الكبيد

Unclassified Radiological Emergency Preparedness Program (REP)

After Action Report/Improvement Plan

Enrico Fermi 2 Nuclear Power Plant

Mon / decon of evacuees and emergency workers, and registration of evacuees	6a1	М	M	М		М	M	M		
Mon / decon of emergency worker equipment	6b1									
Temporary care of evacuees	6c1				М				М	
Transportation and treatment of contaminated injured individuals	6d1									

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

Table 3.1 - Summary of Exercise Evaluation (Continued, page 4/4)													
DATE: 2010-06-08 SITE: Enrico Fermi 2 Nuclear Power Plant, MI M: Met, A: ARCA, D: Deficiency, P: Plan Issue, N: Not Demonstrated		WCEOC	WCTACDB	Wayne County TACP	EAS Station WJR	EVAC VEH MON/DECON WCCCD MIPSE	EVAC MON/DECON WCCCD MIPSE	EVAC REG - WCCCD MIPSE	CONG CARE - WCCCD MIPSE	MS-1 Drill - Transportation, OSMC	MS-1 Drill - Hospital, OSMC		
Emergency Operations Management	censs q			TH.	2.74		7	38.2					
Mobilization	lal	M											
Facilities	161												
Direction and Control	1c1	M											
Communications Equipment	ldl	М		М		M	М	M	М	M	M		
Equip & Supplies to support operations	lel	М		М		М	М	M	М	М	M		
Protective Action Decision Making	i di d			9%		43		300	154				
Emergency Worker Exposure Control	2a1												
Radiological Assessment and PARs	2b1												
Decisions for the Plume Phase -PADs	2b2												
PADs for protection of special populations	2c1	М											
Rad Assessment and Decision making for the Ingestion Exposure Pathway	2d1												
Rad Assess/Decision making concerning Relocation, Reentry, and Return	2e1												
Protective Action Implementation			Ç#.	:3 ^j 41,.	2		2/17	800	. :3	\$ 15.	\$\lambda_1		
Implementation of emergency worker exposure control	3a1		М	М		М	М	М		M	M		
Implementation of KI decision	3b1	M	Α	М						М			
Implementation of protective actions for special populations - EOCs	3c1	М											
Implementation of protective actions for Schools	3c2	М											
Implementation of traffic and access control	3d1	M		М									
Impediments to evacuation are identified and resolved	3d2	M											
Implementation of ingestion pathway decisions - availability/use of info	3e1												
Materials for Ingestion Pathway PADs are available	3e2												
Implementation of relocation, re-entry, and return decisions	3fl												
Field Measurement and Analysis	SEL		317. 346.	7.		95	***	77 × 7 .37 3 4 850 Act	- (Z)	Sec. 2	"Yggrij		
Adequate Equipment for Plume Phase Field Measurements	4a1												
Field Teams obtain sufficient information	4a2												
Field Teams Manage Sample Collection Appropriately	4a3												
Post plume phase field measurements and sampling	4b1												
Laboratory operations	4c1												
Emergency Notification and Public Info	1000 (100) 1000 (100)	17500				1,500							
Activation of the prompt alert and notification system	5a1	P			М								
Activation of the prompt alert and notification system - Fast Breaker	5a2												
Activation of the prompt alert and notification system - Exception areas	5a3												
Emergency information and instructions for the public and the media	5b1	М											
Support Operations/Facilities							00	853	43				

Unclassified Radiological Emergency Preparedness Program (REP)

After Action Report/Improvement Plan

Enrico Fermi 2 Nuclear Power Plant

Mon / decon of evacuees and emergency workers, and registration of evacuees	6a1			М	М	М			
Mon / decon of emergency worker equipment	6b1								
Temporary care of evacuees	6c1						М		
Transportation and treatment of contaminated injured individuals	6d1							M	M

3.3 Criteria Evaluation Summaries

3.3.1 Michigan Jurisdictions

3.3.1.1 Initial Notification Point

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

3.3.1.2 Michigan State Emergency Operations Center

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

ISSUE NO.: 23-10-5a1-P-01

CRITERION: Activities associated with primary alerting and notification of the public are completed in a timely manner following the initial decision by authorized offsite officials to notify the public of an emergency situation. (10 CFR Part 50, Appendix E & NUREG-0654, E.1.,4.,5.,6.,7.)

CONDITION: The process between the State and Monroe and Wayne Counties appears to be cumbersome, and as a result the time of the Protective Action Order at 1036 hours through the completion of the EAS broadcast at 1102 hours was 26 minutes. The various coordination steps between the State, two Counties, the EAS development, the delivery to the radio station and siren activation was not completed in a timely manner.

POSSIBLE CAUSE: The EAS and siren activation process coordination involves the timing of several steps that could lead to delays in notifying the public. The process is not clearly defined in plans or SOPs between the State and Wayne and Monroe

Counties.

REFERENCE: 10 CFR Part 50, Appendix E & NUREG-0654, E.1.,4.,5.,6.,7.

EFFECT: The result was a 26-minute process from the Protective Action Order to the EAS message being transmitted to the public. The possible effect would be the delay in advising the public to evacuate or to take other protective actions.

RECOMMENDATION: Refine or develop a process which clearly defines the county's plans, whereby the development and delivery of the EAS message and siren activation would be completed in a timilier manner, thus insuring a prompt delivery of the notification of a Protective Action Order to the public.

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

3.3.1.3 Technical Support Group

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

3.3.1.4 Michigan Field Team Center - Fermi 2

- a. MET: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 2.b.1, 3.a.1, 3.b.1, 4.a.2.
- b. AREAS REQUIRING CORRECTIVE ACTION: 3.a.1.

ISSUE NO.: 23-10-3a1-A-02

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

CONDITION: The Field Team Center Coordinator, the two Health Physics Support staff and the Dispatcher at the Field Team Center were not issued Direct Reading Dosimetry (DRD)according to their procedures.

POSSIBLE CAUSE: The Field Team Center did not follow their procedure.

REFERENCE: Michigan Department of Environmental Quality, 2009 Field Team Center, Standard Operating Procedures, dated 2009, page B-2.

NUREG K.3.a, 3.b

EFFECT: The Field Team Center staff would not be properly monitored for radiation exposure. Although each staff member was supplied with a permanent record thermoluminescent dosimeter (TLD), without a DRD their doses could not be determined immediately and compared to the administrative dose limits of 1 rem per day and 3 rem for the duration of the event.

CORRECTIVE ACTION DEMONSTRATED: The issuance of DRDs was redemonstrated after the staff was retrained. There was no adverse effect since the staff was properly monitored prior to any potential radiation exposure and for the remainder of the exercise.

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

3.3.1.5 MDNRE Field Team 1

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

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

3.3.1.6 MDNRE Field Team 2

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

3.3.1.7 MDNRE Field Team 3

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

3.3.1.8 MDNRE FTC TACP Dosimetry Briefing

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

3.3.1.9 FTC - TACP Demonstration - Fermi 2

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

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

3.3.1.10 Michigan Field Team Center EW Mon/Decon - Fermi 2

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

3.3.1.11 Field Team Center EW Equip/Vehicle Mon/Decon - Fermi 2

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

3.3.1.12 State Liaison - Monroe County Emergency Operations Center

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

3.3.1.13 State Liaison - Wayne County Emergency Operations Center

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

3.3.1.14 MDNRE Rep - Wayne County Community College District

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

3.3.1.15 MDNRE Rep - Summerfield High School

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

3.3.1.16 MDNRE Rep - Mason High School

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

3.3.1.17 MDNRE Representative - Oakwood Southshore Med Ctr

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

3.3.2 Risk Jurisdictions

3.3.2.1 Monroe County Initial Notification Point

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

3.3.2.2 Monroe County Emergency Operations Center - Fermi 2

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

ISSUE NO.: 23-10-5a1-P-03

CRITERION: Activities associated with primary alerting and notification of the public are completed in a timely manner following the initial decision by authorized offsite officials to notify the public of an emergency situation. (10 CFR Part 50, Appendix E & NUREG-0654, E.1.,4.,5.,6.,7.)

CONDITION: The process between the State, Monroe and Wayne Counties appears to be cumbersome and as a result the time of the Protective Action Order at 1036 hours through the completion of the EAS broadcast at 1102 hours was 26 minutes.

The various coordination steps between the state, two counties, the EAS development, the delivery to the radio station and siren activation was not completed in a timely manner.

POSSIBLE CAUSE: The EAS and siren activation process coordination involves the timing of several steps that could lead to delays in notifying the public. The process is not clearly defined in plans or SOPs between the State, Wayne and Monroe Counties.

REFERENCE: 10 CFR Part 50, Appendix E & NUREG-0654, E.1.,4.,5.,6.,7.

EFFECT: The result was a 26 minute process from the Protective Action Order to the EAS message being transmitted to the public. The possible effect would be the delay in advising the public to evacuate or to take other protective actions.

RECOMMENDATION: Refine or develop a process which clearly defines the county's plans, whereby the development and delivery of the EAS message and siren activation would be completed in a timilier manner, thus insuring a prompt delivery of the notification of a Protective Action Order to the public.

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

3.3.2.3 Monroe County Emergency Management Public Inquiry Hotline

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

3.3.2.4 Monroe County Traffic and Access Control Dosimetry Briefing

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

3.3.2.5 Monroe County Traffic and Access Control Demonstration

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

3.3.2.6 Monroe County Health Department - Dosimetry

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

3.3.2.7 Evacuee Vehicle Mon/Decon - Summerfield High School

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

3.3.2.8 Evacuee Mon/Decon - Summerfield High School

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

3.3.2.9 Evacuee Registration - Summerfield High School

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

3.3.2.10 Congregate Care - Summerfield High School

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

3.3.2.11 Evacuee Vehicle Mon/Decon - Mason High School

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

3.3.2.12 Evacuee Mon/Decon - Mason High School

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

3.3.2.13 Evacuee Registration - Mason High School

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

3.3.2.14 Congregate Care - Mason High School

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

3.3.2.15 EV-2 - Airport Community Schools

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

3.3.2.16 Wayne County Initial Notification Point - Fermi 2

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

3.3.2.17 Wayne County EOC

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

ISSUE NO.: 23-10-5a1-P-04

CRITERION: Activities associated with primary alerting and notification of the public are completed in a timely manner following the initial decision by authorized offsite officials to notify the public of an emergency situation. (10 CFR Part 50, Appendix E & NUREG-0654, E.1.,4.,5.,6.,7.)

CONDITION: The process between the State, Monroe and Wayne Counties appears to be cumbersome and as a result the time of the Protective Action Order at 1036 hours through the completion of the EAS broadcast at 1102 hours was 26 minutes. The various coordination steps between the state, the two counties, the EAS development, the delivery to the radio station and siren activation was not completed in a timely manner.

POSSIBLE CAUSE: The EAS and siren activation process coordination involves the timing of several steps that could lead to delays in notifying the public. The process is not clearly defined in the State, Wayne or Monroe County plans or SOPs.

REFERENCE: 10 CFR Part 50, Appendix E & NUREG-0654, E.1.,4.,5.,6.,7.

EFFECT: The result was a 26 minute process from the Protective Action Order to the

EAS message being transmitted to the public. The possible effect could be the delay in advising the public to evacuate or to take other protective actions.

RECOMMENDATION: Refine or develop a process which clearly defines the county's plans, whereby the development and delivery of the EAS message and siren activation would be completed in a timelier manner, thus insuring a prompt delivery of the notification of a Protective Action Order to the public.

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

3.3.2.18 WC Traffic and Access Control DB

- a. MET: 3.a.1.
- b. AREAS REQUIRING CORRECTIVE ACTION: 3.b.1.

ISSUE NO.: 23-10-3b1-A-05

CRITERION: KI and appropriate instructions are available should a decision to recommend use of KI be made. Appropriate record keeping of the admin of KI for emergency workers and institutionalized individuals (not general public) is maintained. (NUREG-0654, E.7., J.10.e.f.)

CONDITION: The Health Operations Officer instructed TACP personnel to "run the course" when taking KI – i.e., to take all of the 14 tablets (one per 24-hour period) contained in the KI bottle issued to them once they start taking KI. However, the PATIENT PACKAGE INSERT for THRO-BLOCK warns that taking more KI "... will not help you because the thyroid can "hold" only limited amounts of iodine. Larger doses will increase the risk of side-effects. You will probably be told not to take the drug for more than 10 days." These instructions suggest that taking KI for a longer period than necessary may increase the risk of side effects. The KI RECORD CARD contains spaces for recording only 10 doses of KI, supporting the written instructions, and does not provide sufficient blocks for recording the taking of all 14 tablets issued.

POSSIBLE CAUSE: Disconnects between KI PATIENT PACKAGE INSERT

information, Attachment D KI SOP, KI RECORD CARD, number of doses issued to each emergency worker, and briefing instructions provided by the Health Operations Officer.

REFERENCE: 1. Attachment D - CRITERIA FOR USE OF THYROID-CLOCKING DRUGS (KI SOP); 2. Potassium Iodide (KI) PATIENT PACKAGE INSERT for THRO-BLOCK KI RECORD CARD; and 3. KI RECORD CARD.

EFFECT: There is no medical benefit gained from taking additional KI once the thyroid gland is saturated with stable (non-radioactive) iodine and the worker is no longer subject to exposure to radioiodine, and, as suggested in the Thyro-Block insert, the risk of side effects may increase. For these reasons, it is customary to terminate the ingestion of KI once a worker is no longer subject to potential exposure to radioiodine, typically after leaving the area subject to plume deposition and being cleared through the Emergency Worker Decontamination Center.

RECOMMENDATION: The KI briefing and written instructions to emergency workers should be consistent and inform them that they will be advised by the Michigan Department of Public Health through the Incident Commander and their chain of command when to stop taking KI. The KI RECORD CARD should be revised to include blocks for recording all 14 doses of KI issued to them, or the number of doses distributed to each worker should be reduced to 10 doses.

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

3.3.2.19 Wayne County Traffic and Access Control Demonstration

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

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

3.3.2.20 Emergency Alert System Radio Station WJR AM-760

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

3.3.2.21 Evac Veh Mon/Decon WCCCD MIPSE

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

3.3.2.22 Evac Mon/Decon WCCCD MIPSE

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

3.3.2.23 Evacuee Registration WCCCD MIPSE

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

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

3.3.2.24 Congregate Care WCCCD MIPSE

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

3.3.2.25 MS-1 Drill Transportation OSMC

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

3.3.2.26 MS-1 Drill Hospital OSMC

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

SECTION 4: CONCLUSION

There were no Deficiencies for any jurisdiction during this exercise.

There was one Area Requiring Corrective Action (ARCA) and one Planning Issue identified for the State of Michigan.

The ARCA, Number 23-10-3a1-A-02, was identified at the Michigan Field Team Center under Criterion 3.a.1 - Implementation of Emergency Worker Exposure Control, whereby the Field Team Center Coordinator, the two Health Physics Support staff and the Dispatcher at the Field Team Center were not issued direct-reading dosimetry according to their procedures. This issue was re-demonstrated during the exercise, and the corrective action was successfully demonstrated.

The Planning Issue, Number 23-10-5a1-P-01, was identified at the State Emergency Operations Center under Criterion 5.a.1 - Activation of the Prompt Alert and Notification System, whereby the primary alerting and notification of the public between the State and Monroe and Wayne Counties involved several cumbersome processes, and as a result, the time of the Protective Action Order at 1036 hours through the completion of the EAS broadcast at 1102 hours was 26 minutes.

One prior ARCA for the State of Michigan, Number 44-08-5.b.1-A-01, regarding the issue of two news releases with incorrect and/or incomplete information remains unresolved.

There were no ARCAs and one Planning Issue identified during this exercise for Monroe County.

The Planning Issue, Number 23-10-5a1-P-03, was identified at the Monroe County Emergency Operations Center under Criterion 5.a.1 - Activation of the Prompt Alert and Notification System, whereby the primary alerting and notification of the public between the State and Monroe and Wayne Counties involved several cumbersome processes, and as a result, the time of the Protective Action Order at 1036 hours through the completion of the EAS broadcast at 1102 hours was 26 minutes.

One ARCA and one Planning Issue were identified for Wayne County.

UnclassifiedRadiological Emergency Preparedness Program (REP)

Enrico Fermi 2 Nuclear Power Plant

The ARCA, Number 23-10-3b1-A-05, was identified at the Wayne County Traffic and Access Control Dosimetry Briefing under Criterion 3.b.1 - Implementation of KI Decision, whereby the Health Operations Officer instructed TACP personnel to "run the course" when taking KI - i.e., to take all of the 14 tablets (one per 24-hour period) contained in the KI bottle issued to them once they start taking KI. This instruction was contrary to the instructions provided in the PATIENT PACKAGE INSERT for THYRO-BLOCK KI, which informs the user that the individual will probably be told not to take the drug for more than 10 days due to the increased risk of side-effects.

The Planning Issue, Number 23-10-5a1-P-04, was identified at the Wayne County Emergency Operations Center under Criterion 5.a.1 - Activation of the Prompt Alert and Notification System, whereby the primary alerting and notification of the public between the State, Monroe and Wayne Counties involved several cumbersome processes, and as a result, the time of the Protective Action Order at 1036 hours through the completion of the EAS broadcast at 1102 hours was 26 minutes.

APPENDIX A: IMPROVEMENT PLAN

Issue Number: 23-10-5a1-P-01

Criterion: 5a1

ISSUE: The process between the State and Monroe and Wayne Counties appears to be cumbersome, and as a result the time of the Protective Action Order at 1036 hours through the completion of the EAS broadcast at 1102 hours was 26 minutes. The various coordination steps between the State, two Counties, the EAS development, the delivery to the radio station and siren activation was not completed in a timely manner.

RECOMMENDATION: Refine or develop a process which clearly defines the county's plans, whereby the development and delivery of the EAS message and siren activation would be completed in a timilier manner, thus insuring a prompt delivery of the notification of a Protective Action Order to the public.

CORRECTIVE ACTION DESCRIPTION: This process will be reviewed and adjusted as necessary to ensure that the Protective Action Orders are delivered in a timely fashion, thus allowing the counties to activate sirens and deliver the EAS message for the best possible protection of the public.

CAPABILITY: Communications	PRIMARY RESPONSIBLE AGENCY: Michigan State Police Emergency Management and Homeland Security Division
CAPABILITY ELEMENT: Planning	START DATE: 2010-08-19
AGENCY POC: James R. Porcello 517-336-6435	ESTIMATED COMPLETION DATE: 2012-08-21

Issue Number: 23-10-5a1-P-03

Criterion: 5a1

ISSUE: The process between the State, Monroe and Wayne Counties appears to be cumbersome and as a result the time of the Protective Action Order at 1036 hours through the completion of the EAS broadcast at 1102 hours was 26 minutes. The various coordination steps between the state, two counties, the EAS development, the delivery to the radio station and siren activation was not completed in a timely manner.

RECOMMENDATION: Refine or develop a process which clearly defines the county's plans, whereby the development and delivery of the EAS message and siren activation would be completed in a timilier manner, thus insuring a prompt delivery of the notification of a Protective Action Order to the public.

CORRECTIVE ACTION DESCRIPTION: The county plan will be reviewed and adjusted as necessary to ensure that the EAS message and siren activation will be completed in a timely manner for the best possible protection of the public.

CAPABILITY: Communications	PRIMARY RESPONSIBLE AGENCY: Monroe County Emergency Management Agency
CAPABILITY ELEMENT: Planning	START DATE: 2010-08-19
AGENCY POC: James R. Porcello 517-336-6435	ESTIMATED COMPLETION DATE: 2012-08-21

Issue Number: 23-10-5a1-P-04

Criterion: 5a1

ISSUE: The process between the State, Monroe and Wayne Counties appears to be cumbersome and as a result the time of the Protective Action Order at 1036 hours through the completion of the EAS broadcast at 1102 hours was 26 minutes. The various coordination steps between the state, the two counties, the EAS development, the delivery to the radio station and siren activation was not completed in a timely manner.

RECOMMENDATION: Refine or develop a process which clearly defines the county's plans, whereby the development and delivery of the EAS message and siren activation would be completed in a timelier manner, thus insuring a prompt delivery of the notification of a Protective Action Order to the public.

CORRECTIVE ACTION DESCRIPTION: The county plan will be reviewed and adjusted as necessary to ensure that the EAS message and siren activation will be completed in a timely manner for the best possible protection of the public.

CAPABILITY: Communications	PRIMARY RESPONSIBLE AGENCY: Wayne County Homeland Security and Emergency Management Department
CAPABILITY ELEMENT: Planning	START DATE: 2010-08-19
AGENCY POC: James R. Porcello 517-336-6435	ESTIMATED COMPLETION DATE: 2012-08-21

Issue Number: 23-10-3b1-A-05

Criterion: 3b1

ISSUE: The Health Operations Officer instructed TACP personnel to "run the course" when taking KI – i.e., to take all of the 14 tablets (one per 24-hour period) contained in the KI bottle issued to them once they start taking KI. However, the PATIENT PACKAGE INSERT for THRO-BLOCK warns that taking more KI "... will not help you because the thyroid can "hold" only limited amounts of iodine. Larger doses will increase the risk of side-effects. You will probably be told not to take the drug for more than 10 days." These instructions suggest that taking KI for a longer period than necessary may increase the risk of side effects. The KI RECORD CARD contains spaces for recording only 10 doses of KI, supporting the written instructions, and does not provide sufficient blocks for recording the taking of all 14 tablets issued.

RECOMMENDATION: The KI briefing and written instructions to emergency workers should be consistent and inform them that they will be advised by the Michigan Department of Public Health through the Incident Commander and their chain of command when to stop taking KI. The KI RECORD CARD should be revised to include blocks for recording all 14 doses of KI issued to them, or the number of doses distributed to each worker should be reduced to 10 doses.

CORRECTIVE ACTION DESCRIPTION: The county plan will be reviewed and adjusted as necessary to ensure that staff is aware and trained as to how to properly instruct TACP personnel regarding the ingestion of KI. This will be re-demonstrated during the next evaluated exercise.

CAPABILITY: Communications	PRIMARY RESPONSIBLE AGENCY: Wayne County Homeland Security and Emergency Management Department
CAPABILITY ELEMENT: Planning	START DATE: 2010-08-19
AGENCY POC: James R. Porcello 517-336-6436	ESTIMATED COMPLETION DATE: 2012-08-21

APPENDIX B: BEST PRACTICES

1. Support for registration

Summary: The American Red Cross used a volunteer runner during the exercise to expedite internal communications.

Description: The ARC used a volunteer runner to support registration activities. The runner would be used to communicate in person with the Facility Manager or other emergency response personnel or to obtain supplies or meet other needs. This would lessen the demand for registration personnel to spend time on the telephone. Because registration personnel are required to man the registration desk at all time, it relieves the pressure of sending peronnnel engaged in registration activities on other simple but potentially time-consuming missions.

2. Evacuee Registration

Summary: Registration personnel went out of their way to insure that evacuees were comfortable with their surroundings before information was obtained. They provided answered questions and only released individuals when all of their concerns had been met.

Description: Registration personnel greeted evacuees, provided reassurance and acclimated them to the care center.

APPENDIX C: EXERCISE TIMELINE

Table 1 - Exercise Timeline
DATE: 2010-06-08, SITE: Enrico Fermi 2 Nuclear Power Plant,
MI

Emergency Classification Level or Event	Time Utility Declared	Michigan SEOC	МСБОС	WCEOC
Unusual Event	N/A	N/A	N/A	N/A
Alert	0750	0815	0755	0755
Site Area Emergency	0905	0908	0910	0910
General Emergency	1032	1036	-1036	1037
Simulated Rad. Release Started	1032	1036	1036	1037
Simulated Rad. Release Terminated	N/A	N/A	N/A	N/A
Facility Declared Operational		0908	0855	0900
Declaration of State of Emergency		0917	0919	0926
Exercise Terminated		1328	1328	1325
Early Precautionary Actions:		0910/0920	N/A	N/A
1st Protective Action Decision:		1036	N/A	N/A
1st Siren Activation		N/A	1056	N/A
1st EAS or EBS Message		N/A	N/A	1102
2nd Protective Action Decision:		1206	N/A	N/A
2nd Siren Activation		N/A	1222	N/A
2nd EAS or EBS Message		N/A	N/A	1224
1st KI Administration Decision		1037	N/A	N/A
2nd KI Administration Decision		1045	N/A	N/A

APPENDIX D: EXERCISE EVALUATORS AND TEAM LEADERS

The following is a list of the personnel that evaluated the Enrico Fermi 2 Nuclear Power Plant REP Full Participation Plume Exposure Pathway Exercise on June 8, 2010. The list includes the evaluation team leadership and all evaluators. The organization each evaluator represents is indicated by the following abbreviations:

DHS/FEMA Department of Homeland Security/Federal Emergency Management Agency

ICF International

Title; Name; Organization

Chair, Regional Assistance Committee; William E. King; DHS/FEMA

Exercise Director; Dwaine Warren; DHS/FEMA

Senior Specialist; Stephen Tulley; DHS/FEMA

Regional Site Specialist; Clinton E. Crackel; DHS/FEMA

Team Leader - Michigan; James King; DHS/FEMA

Team Leader - Monroe County; David Ortman; DHS/FEMA

Team Leader - Wayne County; Edward Golinski; DHS/FEMA

DATE: 2010-06-08, SITE: Enrico Fermi 2 Nuclear Power Plant, MI

LOCATION	EVALUATOR	AGENCY
Initial Notification Point	Karl Rabenhorst	DHS/FEMA
Michigan State Emergency Operations Center	Douglas Lawson Karl Rabenhorst	DHS/FEMA DHS/FEMA
Technical Support Group	Michael Leal .	ICF International
Michigan Field Team Center - Fermi 2	David Jacobson	ICF
MDNRE Field Team 1	David Seebart	ICF
MDNRE Field Team 2	Richard Grundstrom	ICF
MDNRE Field Team 3	David Stuenkel	ICF
MDNRE FTC TACP Dosimetry Briefing	Robert Walker	ICF
FTC - TACP Demonstration - Fermi 2	Sonia Eischen	ICF
Michigan Field Team Center EW Mon/Decon - Fermi 2	Robert Walker	ICF
Field Team Center EW Equip/Vehicle Mon/Decon - Fermi 2	Sonia Eischen	ICF
State Liaison - Monroe County Emergency Operations Center	Clinton Crackel	DHS/FEMA
State Liaison - Wayne County Emergency Operations Center	Bridget Ahlgrim	DHS/FEMA
MDNRE Rep - Wayne County Community College District	Michael Leal	ICF International
MDNRE Rep - Summerfield High School	Dennis Wilford	ICF
MDNRE Rep - Mason High School	Danny Loomis	ICF International
MDNRE Representative - Oakwood Southshore Med Ctr	Patrick Taylor	ICF
Monroe County Initial Notification Point	Deborah Fulk	DHS/FEMA
Monroe County Emergency Operations Center - Fermi 2	Deborah Fulk Kara Scott	DHS/FEMA DHS/FEMA
Monroe County Emergency Management Public Inquiry Hotline	Clinton Crackel	DHS/FEMA
Monroe County Traffic and Access Control Dosimetry Briefing	Clinton Crackel	DHS/FEMA
Monroe County Traffic and Access Control Demonstration	Debra Schneck	ICF
Monroe County Health Department - Dosimetry	Kara Scott	DHS/FEMA
Evacuee Vehicle Mon/Decon - Summerfield High School	George R MacDonald	ICF
Evacuee Mon/Decon - Summerfield High School	Danny Loomis	ICF International
Evacuee Registration - Summerfield High School	Walter Gawlak	ICF
Congregate Care - Summerfield High School	Dennis Wilford	ICF
Evacuee Vehicle Mon/Decon - Mason High School	George R MacDonald	ICF
Evacuee Mon/Decon - Mason High School	Onalee Grady-Erickson	, ICF
Evacuee Registration - Mason High School	James Greer	ICF
Congregate Care - Mason High School	Danny Loomis	ICF International
EV-2 - Airport Community Schools	Walter Gawlak	ICF
Wayne County Initial Notification Point - Fermi 2	James Greer	ICF
Wayne County EOC	Bridget Ahlgrim Carl Bebrich	DHS/FEMA DHS/FEMA
WC Traffic and Access Control DB	Carl Bebrich	DHS/FEMA
Wayne County Traffic and Access Control Demonstration	Onalee Grady-Erickson	ICF
Emergency Alert System Radio Station WJR AM-760	Patrick Taylor	ICF
Evac Veh Mon/Decon WCCCD MIPSE	David Stuenkel	ICF

Unclassified Radiological Emergency Preparedness Program (REP)

After Action Report/Improvement Plan

Enrico Fermi 2 Nuclear Power Plant

Evac Mon/Decon WCCCD MIPSE	Debra Schneck	ICF
Evacuee Registration WCCCD MIPSE	David Stuenkel	ICF
Congregate Care WCCCD MIPSE	Robert Walker	ICF
MS-1 Drill Transportation OSMC	Paul Nied	ICF
MS-1 Drill Hospital OSMC	Patrick Taylor	ICF
* Team Leader		

APPENDIX E: ACRONYMS AND ABBREVIATIONS

Acronym	Meaning
ACP	Access Control Point
ALARA	As Low as Reasonably Achievable
ANI	American Nuclear Insurers
ARC	American Red Cross
ARCA	Area Requiring Corrective Action
ARES	Amateur Radio Emergency Services
BFS4	Brownstown Fire Station Number 4
BWR	Boiling Water Reactor
CCC	Congregate Care Center
CD V	Civil Defense, Category V
CEMS	Concord Emergency Medical Service
CEMT	Community Emergency Medical Team
CEO	Chief Executive Officer
cpm	Counts Per Minute
DCO:	Dosimetry Control Officer
DERT	Disaster Emergency Response Team
DFMA	Downriver Fire Mutual Aid
DMAT	Disaster Medical Assistance Team
DMORT	Disaster Mortuary Operational Response Team
dpm	Disintegrations Per Minute
DPMA	Downriver Police Mutual Aid
DRD	Direct Reading Dosimeter
EAS	Emergency Alert System
ECL	Emergency Classification Level
EMHSD	Emergency Management and Homeland Security Division
<u>EMPIH</u>	Emergency Management Public Inquiry Hotline
EMS	Emergency Medical Services
EOC	Emergency Operations Center
EOF	Emergency Operations Facility
EOP	Emergency Operations Procedure
EPD	Electronic Personal Dosimeter
EPZ	Emergency Planning Zone
EV-2	School Interview
EVAC	Evacuee

EW	Emergency Workers
FD	Fire Department
FMATF	Fire Mutual Aid Task Force
FNPP	Fermi Nuclear Power Plant
FRMAC	Federal Radiological Monitoring and Assessment Center
FTC	Field Team Center
FTC Cell	Field Team Center Cell
FTCC	Field Team Center Coordinator
GIS	Geographical Information System
GM (G-M)	Geiger-Mueller
GPS	Global Positioning System
HEMS	Hospital Emergency Medical Services
HP	Health Physics or Health Pysicist
HPL	Health Physics Liaison
HPRT	Health Physics Response Team
HPS	Health Physics Support
HPT	Health Physics Technician
HS ·	Hogh School
IAP	Incident Action Plan
IC	Incident Commander
ICF	ICF International
ICP	Incident Command Post
ICS	Incident Command System
IPC	Ingestion Pathway Committee
ISD	Intermediate School District
JFO	Joint Field Office
ЛС	Joint Information Center
ЛS	Joint Information System
ЈРІТ	Joint Public Information Team
KI	Potassium iodide
LD	Luminescence Dosimeter
LEIN	Law Enforcement Information Network
LENCS	Local Emergency Notification and Communications System
LNO	Liaison Officer
LOCA	Loss of Coolant Accident
MC	Monroe County
MCA	Monroe County Ambulance
MCCD	Monroe County Central Dispatch
MCDC	Monroe County Drain Commission
MCDHR	Monroe County Department of Human Resources

MCEMC	Monroe County Emergency Management Coordinator
MCEMD	Monroe County Emergency Management Division
MCEOC	Monroe County Emergency Operations Center
MCF	Monroe County Firgrounds
MCFA	Monroe County Fire Association
MCHD	Monroe County Health Department
mCi	millicuries
MCISD	Monroe County Intermediate School District
MCPD	Monroe County Planning Department
MCRC	Monroe County Road Commission
MCSO	Monroe County Sheriff's Office
MDA	Michigan Department of Agriculture
MDAG	Michigan Department of Attorney General
MDCH	Michigan Department of Community Health
MDHS	Michigan Department of Human Services
MDIT	Michigan Department of Information Technology
MDLEG	Michigan Department of Labor and Economic Growth
MDMA	Michigan Department of Military Affairs
MDNRE	Michigan Department of Natural Resources and Environment
MDOT	Michigan Department of Transportation
MDSP	Michigan Department of State Police
MDTMB	Michigan Department of Technology, Management and Budget
MEDC	Michigan Economic Developmic Development Corporation
MEDCOM	Medical Communications System
MEMAC	Michigan Emergency Management Assistance Compact
MEMP	Michigan Emergency Management Plan
МНМР	Michigan Hazard Mitigation Plan
MIPSE	Michigan Institute for Public Safety Education
MOSA	Michigan Office of Services to the Aging
MPSC	Michigan Public Service Commission
MPSCS	Michigan Public Safety Communications System
mR	milliRoentgens
mR/hr	milliRoentgens per hour
MS-1	Medical Services Drill
MSC	Michigan Supreme Court
MSFM	Michigan State Fire Marshal
	Michigan State Police/Emergency Management and Homeland Security Division
MSUEAA	Michigan State University Extension Administration - Agriculture
NAWAS	National Warning System

nCi	nanoCuries
NDMS	National Disaster Medical System
NFEMP	Nuclear Facilities Emergency Plan
NFERP	Nuclear Facility Emergency Response Procedures
NGO	Non-governmental Organization
NIMS	National Incident Management System
NLETS	National Law Enforcement Telecommunications System
NRC	U.S. Nuclear Regulatory Commission
NRF	National Response Framework
ORO	Offsite Response Organization
OSL	Optically Stimulated Luminescence Dosimeter
OSMC	Oakwood Southshore Medical Center
PAA	Protective Action Area
PAG	Protective Action Guideline
PAO	Protective Action Order
PAR	Protective Action Recommendation
pCi	picoCuries
PD	Police Department
PNSS	Prompt Notification Siren System
PRDC	Public Reception/Decontamination Center
PVO	Private Voluntary Organization
PWR	Pressurized Light Water Reactor
R	Roentgen
R/hr	Roentgens per hour
RAC	Regional Assistance Committee
RACES	Radio Amateur Civil Emergency Service
rad	Radiation absorbed dose
RADEF	Radiological Defense
RADPRO	Radiological Protection
RAP	Radiological Assistance Program (USDOE)
RASCAL	Radiological Assessment System for Consequence Analysis
RDCC	Reception/Decontamination/Congregate Care
RDL .	Radiological Decontamination Leader
REA	Radiation Emergency Area
rem	Roentgen equivalent man
REP	Radiological Emergency Preparedness
RESA	Regional Educational Services Agency
RESD	Regional Educational Services District
RM(s)	Radiation/Radiological Monitors
RPC	Radiation Protection Coordinator

Enrico Fermi 2 Nuclear Power Plant

APPENDIX F: EXERCISE PLAN

This appendix lists the exercise criteria, which were scheduled for demonstration in the Enrico Fermi 2 Nuclear Power Plant Radiological Emergency Preparedness Full Participation Plume Exposure Pathway Exercise on June 8, 2010, and the offsite extent-of-play agreement accepted by DHS/FEMA Region V on April 29, 2010. The exercise criteria, contained in the FEMA "Radiological Emergency Preparedness Exercise Evaluation Methodology; Notice," as published in the Federal Register Notice/Vol. 67, dated April 25, 2002, represent a functional translation of the planning standards and evaluation criteria of NUREG-0654/FEMA-REP-1, Rev 1, "Criteria for the Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," November 1980. Because the exercise criteria are intended for use at all nuclear power plant sites, and because of variations among offsite plans and procedures, an extent-of-play agreement is prepared by the State and accepted by DHS/FEMA to provide evaluators with guidance on expected actual demonstration of the criteria.

STATE OF MICHIGAN AND MONROE AND WAYNE COUNTIES EXTENT OF PLAY AGREEMENT FOR THE FERMI 2 NUCLEAR POWER PLANT REP EXERCISE

June 8, 2010

EVALUATION AREA 1 - EMERGENCY OPERATIONS MANAGEMENT

Criterion 1.a.1: 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) and Field Team Center will be fully activated. State personnel reporting to the SEOC will be mobilized in accordance with procedures.
- 2. State personnel reporting to the county EOCs and FTC will be pre-positioned and will report when mobilized by the SEOC.
- 3. State personnel reporting to the Joint Information Center (JIC) will be pre-positioned and will begin participation after the arrival of Monroe County JIC personnel.
- 4. State personnel involved in out of sequence demonstrations will be pre-positioned.
- 5. 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 personnel reporting to the Joint Information Center (JIC) will be prepositioned and will begin participation after the arrival of Monroe County JIC personnel.
- 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 EQC.

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

State of Michigan

1. The State Emergency Operations Center (SEOC) is maintained in operational readiness and set up will not be demonstrated.

2. The Field Team Center will be partially set up on Monday afternoon, June 7th and the balance of operations set up on Tuesday, June 8th. The facility set up will be evaluated on Tuesday, June 8th only.

Monroe County

The Monroe County Emergency Operations Center (MCEOC) is maintained in operational readiness and set up will not be demonstrated

Wayne County

The Wayne County Emergency Operations Center (WCEOC) is maintained in operational readiness and set up will not be demonstrated

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, Monroe and Wayne County

This criterion will be demonstrated at the SEOC, county EOCs, FTC, and JIC.

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, Monroe and Wayne County

This criterion will be demonstrated by the SEOC, county EOCs, FTC, JIC, and the Public Reception/Decontamination Centers, 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, dosimetry, potassium iodide (KI) and other supplies are sufficient to support emergency operations.

State of Michigan, Monroe and Wayne County

- 1. Equipment, maps, displays, and other supplies will be demonstrated to support emergency operations at the SEOC, JIC, FTC and county EOCs 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 each county.
- 4. Potassium iodide is stored at the MSP/EMHSD office in Lansing.
- 5. Dosimetry is stored at Michigan Department of Natural Resources and Environment (MDNRE) office in Lansing.

- 6. MDNRE maintains supplies of potassium iodide and dosimeters for use by its personnel.
- 7. Documentation related to KI shelf life extension is maintained by MSP/EMHSD and will be provided to FEMA at the Pre-Exercise Briefing along with instrument calibration data.

Monroe County

Potassium iodide and dosimeters are stored at the Monroe County Community Health office

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. The ability to make the decision to recommend the use of KI to emergency workers will be demonstrated by the SEOC.
- 2. Authorization to exceed state exposure limits will be demonstrated. If the scenario does not provide an opportunity to demonstrate these items, a controller inject will be issued to demonstrate the ability to perform these actions.

Monroe and Wayne Counties

This criterion does not apply to the counties.

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.1: Appropriate protective action recommendations are based on available information on plant conditions, field monitoring data and licensee and ORO dose projections, as well as knowledge of on-site and off-site environmental conditions.

State of Michigan

- 1. The Technical Support Group in the SEOC will evaluate licensee and FTC provided information and complete an independent analysis of scenario data.
- 2. Dose assessment evaluation will be conducted in the SEOC and/or the FTC as appropriate.

Monroe and Wayne Counties

This criterion does not apply.

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 ORO policy).

State of Michigan

- 1. This criterion will be demonstrated by the Incident Management Group in the SEOC in conjunction with applicable support staff including the Technical Support Group and MDCH.
- 2. The new potassium iodide (KI) policy will be demonstrated at the General Emergency declaration through a press release at the JIC and through SEOC discussion.

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

Monroe and Wayne Counties

This criterion does not apply to the counties.

Criterion 2.c.1: Protective action decisions are made, as appropriate, for special population groups.

State of Michigan

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

Monroe County

- 1. Lists of transportation dependent and special needs populations are kept by the county. No personnel will be moved. No phone calls to transportation dependent persons will be made. Simulation of calls will be logged as such.
- 2. Equipment lists and rosters will be available in the county EOC.
- 3. The School Services Representatives in the Monroe County EOC will make phone contact with affected school districts if schools are in session. No scenario information will be discussed during these calls.

Wayne County

1. Lists of transportation dependent and special needs populations are kept by the county. No personnel will be moved. No phone calls to transportation dependent persons will be made. Simulation of calls will be logged as such.

- 2. Equipment lists and rosters will be available in the county EOC.
- 3. The School Services Representatives in the Wayne County EOC will make phone contact with affected school districts if schools are in session. No scenario information will be discussed during these calls.

Criterion 2.d.1: Radiological consequences for the ingestion pathway are assessed and appropriate protective action decisions are made based on the ORO's planning criteria.

This criterion will not be demonstrated during this exercise.

Criterion 2.e.1: Timely re-location, re-entry and return decisions are made and coordinated as appropriate, based on assessments of the radiological conditions and criteria in the OROs 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 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.

State of Michigan

This criterion will be demonstrated by the State of Michigan at the Field Team Center. The briefing on dosimeters and KI use for the State of Michigan access control demonstration will be at the FTC.

Monroe County

- 1. Monroe County will demonstrate this criterion out of sequence at the reception/decontamination center.
- 2. Monroe County will demonstrate this criterion at the access control point when emergency workers are issued dosimeters.

Wayne County

- 1. Wayne County will demonstrate this criterion out of sequence at the reception/decontamination center.
- 2. Wayne County will demonstrate this criterion at the access control point when emergency workers are issued dosimeters.

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

Criterion 3.b.1: KI and appropriate instructions are available should a decision to recommend use of KI be made. Appropriate record keeping of the administration of KI for emergency workers and institutionalized individuals (not the general public) is maintained.

State of Michigan

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

Monroe County

- 1. This criterion will be demonstrated during the traffic and access control demonstrations for Monroe County. Response personnel will demonstrate knowledge of when it is appropriate to take KI, but not actually ingest it.
- 2. KI will be distributed to emergency workers in Monroe County along with their dosimeters.

Wayne County

- 1. This criterion will be demonstrated during the traffic and access control demonstrations for Wayne County. Response personnel will demonstrate knowledge of when it is appropriate to take KI, but not actually ingest it.
- 2. KI will be distributed to emergency workers in Wayne County along with their dosimeters.

Criterion 3.c.1: Protective action decisions are implemented for special population groups 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. An endeavor will be made to contact a third of the total number of transportation providers. There will be no discussion of scenario information during these calls.

Wayne County

- 1. This criterion will be demonstrated in the county EOC via EOC 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. An endeavor will be made to contact a third of the total number of transportation providers. There will be no discussion of scenario information during these calls.

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

State of Michigan

This criterion will not be demonstrated by the state.

Monroe County

- 1. This criterion will be demonstrated in the Monroe County EOC as driven by the scenario. If schools are not in session, the FEMA evaluator will conduct an interview with the schools representative in the county EOC.
- 2. An EV-2 interview will be conducted in Monroe County. Refer to the Table of Exercise Demonstrations for specific times and locations.

Wayne County

- 1. This criterion will be demonstrated in the Wayne County EOC as driven by the scenario. If schools are not in session, the FEMA evaluator will conduct an interview with the schools representative in the county EOC.
- 2. An EV-2 interview will be conducted in Wayne County. Refer to the Table of Exercise Demonstrations for specific times and locations.

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, rail, and waterway access.

- 2. The state will demonstrate one access control point. Demonstration locations will be determined during the exercise at a time agreed upon by the FEMA evaluator and the State Controller at the FTC.
- 3. Staffing of all other access and traffic control points will be simulated.

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 DHS/FEMA evaluator, the MSP/EMHSD 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. Wayne County demonstration locations will be determined during the exercise at a time agreed upon by the FEMA evaluator, the MSP/EMHSD 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 will not be demonstrated by the state.

Monroe and Wayne Counties

This will be demonstrated through discussions at the county EOCs. Messages will be injected by MSP/EMHSD 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.

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 re-entry of emergency workers and relocation and return of the public are coordinated with appropriate organizations and implemented.

This criterion will not be demonstrated during this exercise.

EVALUATION AREA 4 - FIELD MEASUREMENTS AND ANALYSIS

Criterion 4.a.1: The field teams are equipped to perform field measurements of direct radiation exposure (cloud and ground shine) and to sample airborne radioiodine and particulates.

State of Michigan

- 1. This criterion will be demonstrated during this exercise at the Field Team Center by State personnel. Three field teams will demonstrate this criterion.
- 2. Field teams will have instruments capable of measuring gamma exposure rates and detecting the presence of beta radiation. These instruments will be capable of measuring a range of activity and exposure consistent with the intended use of the instrument and the State's plans and procedures, including radiological protection/exposure control of team members and detection of activity on air sample collection media. All instruments, including air sampling flow meters, will be operated, maintained, and calibrated in accordance with the manufacturer's recommendations. A label indicating such calibration will be on each instrument or verifiable by other means. An appropriate radioactive checks source will be used to verify proper operational response for each radiation measurement instrument (less than 1 R/hr) and for high-range instruments when available.

Monroe and Wayne Counties

This criterion does not apply.

Criterion 4.a.2: Field teams 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 during this exercise at the Field Team Center by the State.

2. Field measurements will be taken to help characterize the release and to support the adequacy of implemented protective actions or to be a factor in modifying protective actions. Teams will be directed to take measurements in such locations, at such times to provide information sufficient to characterize the plume impacts.

Monroe and Wayne Counties

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

This criterion will be demonstrated during this exercise at the Field Team Center by State personnel. Three field teams will demonstrate the capability to report measurements and field data pertaining to the measurement of airborne radioiodine and particulates to the Field Team Center Coordinator (FTCC).

Monroe and Wayne Counties

This criterion does not apply.

Criterion 4.b.1: The field teams 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.

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

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

Monroe and Wayne County

Monroe County Central Dispatch is the primary activation point for the public warning sirens. The Emergency Alert System is activated by Wayne County. To demonstrate this criterion, the State will provide information to Monroe and Wayne Counties for release in the Emergency Alert System messages. An interview with WJR personnel will be conducted by FEMA following transmittal of 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: Activities associated with FEMA approved exception areas (where applicable) are completed within 45 minutes following the initial decision by authorized offsite emergency officials to notify the public of an emergency situation. Backup alert and notification of the public is completed within 45 minutes following the detection by the ORO of a failure of the primary alert and notification system.

State of Michigan, Monroe County, and Wayne County

This criterion does not apply. The Fermi 2 EPZ does not contain any FEMA approved exception areas.

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

State of Michigan, Monroe and Wayne County

- 1. This will be demonstrated at the JIC via dissemination of Emergency Alert System announcements in coordination with the SEOC, Monroe County EOC, and Wayne County EOC. 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 Public Inquiry Coordinator, who identifies trends and ensures appropriate information is provided to the public inquiry operators and the JIC for inclusion in press briefings.

Note: ARCA No. 44-08-5b1-A-1 remains open for the State of Michigan: "Two news releases were issued with incorrect and / or incomplete information. One contained the wrong emergency classification level. Both did not include all of the information that was contained in the Agricultural Advisories."

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/emergency worker facility has appropriate space, adequate resources, and trained personnel to provide monitoring, decontamination, and registration of evacuees and/or emergency workers.

State of Michigan

- 1. State level emergency worker decontamination will be demonstrated at the Field Team Center.
- 2. State DNRE HP personnel will provide assistance as requested during county decontamination center demonstrations.

Monroe County

- 1. Monroe County will fully demonstrate a public reception/decontamination center out-of sequence from the exercise.
- 2. Public reception centers will demonstrate 1/3 of the monitoring teams required to monitor 20% of the population allocated to that facility within a 12-hour period. Each team will monitor six individuals.
- 3. Emergency Worker Decontamination Centers will not be demonstrated during this exercise.

Wayne County

- 1. Wayne County will fully demonstrate a public reception/decontamination center out-of sequence from the exercise.
- 2. Public reception centers will demonstrate 1/3 of the monitoring teams required to monitor 20% of the population allocated to that facility within a 12-hour period. Each team will monitor six individuals.
- 3. Emergency Worker Decontamination Centers will not be demonstrated during this exercise.

Note: Wayne County Community College will be used as the Public Reception and Decontamination Center. This facility has been approved by the State of Michigan.

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 for the accomplishment of monitoring and decontamination of emergency worker equipment including vehicles.

State of Michigan

State of Michigan personnel will only demonstrate this criterion at the State Field Team Center. State emergency equipment and vehicles will be monitored and decontaminated as appropriate.

Monroe County, and 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.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

Monroe County will fully demonstrate a congregate care center out of sequence with the exercise. This facility will be set up in advance of the demonstration. Personnel operating the center will not go through alert, mobilization, activation, or shift changes.

Wayne County

Wayne County will fully demonstrate a congregate care center out of sequence with the exercise. This facility will be set up in advance of the demonstration. Personnel operating the center will not go through alert, mobilization, activation, or shift changes.

Note: Wayne County Community College will be used as the Congregate Care Center. This facility has been approved by the State of Michigan.

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.

This criterion will be demonstrated during the MS-1 exercise on June 9, 2010.

Unclassified Radiological Emergency Preparedness Program (REP)

After Action Report/Improvement Plan

Enrico Fermi 2 Nuclear Power Plant

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

APPENDIX G: EXERCISE SCENARIO

Fermi 2 2010 REP Exercise Off-site Scenario

Time	Fermi 2 Events/Actions	SEOC Actions	MEOC Actions	WEOC Actions	JIC Actions	FTC Actions
0730 .	 Initial conditions provided to SCR. 					
0745	Exercise begins at plant.					
0745- 0800	Alert declared based on HA2 fire and indication of degradation of Safety Systems Local & State notifications made. OSC, TSC, and EOF activated.	 MSP Operations notified by plant. MSP Operations notifies MSP/EMHSD . MSP Operations sends LEIN to Monroe & Wayne Counties. SEOC activation begun. Activation of JIC and FTC begun. SEOC notifies FEMA and Ontario 	 Sheriff Dispatch notified by plant and MSP LEIN. Dispatch notifies EM & Chairperson. EOC activation begun. 	 Sheriff Dispatch notified by plant and MSP LEIN. Dispatch notifies EM & Chairperson. EOC activation begun. 	 JIC activation begun. Utility personnel will not demonstrate A/N or facility setup. State and Wayne County JIC personnel prepositioned. Monroe County JIC personnel dispatched real time. 	• FTC activation begun.

Note: All times are approximate and may change due to player actions taken.

Fermi 2 2010 REP Exercise Off-site Scenario

Time	Fermi 2 Events/Actions	SEOC Actions	MEOC Actions	WEOC Actions	JIC Actions	FTC Actions
0830	 Hotline established to SEOC. TSC & OSC operational. 	 SEOC activation underway. Hotlines opened to plant and counties. Plant instructed to terminate notifications to counties. Notifications to counties via SEOC. 	 EOC activation underway. Hotline opened to SEOC. 	 EOC activation underway. Hotline opened to SEOC. 	 ENC operational Monroe JIC personnel arrive Wayne JIC personnel arrive 	
~0900	Site Area Emergency (SAE) declared based on FS1 Loss or Potential Loss of Reactor Coolant and Fuel Clad fission product barriers. Non- essential personnel evacuated from site.	 SEOC operational Plant notifies SEOC within 15 minutes. Notifications to counties, JIC, FTC via SEOC. If not done previously, declare State of Emergency/ Disaster. Issues agricultural advisories. Issues KI directives. 	EOC operational. If not done previously, declare State of Emergency/ Disaster	 EOC operational. If not done previously, declare State of Emergency/ Disaster 	State JIC personnel arrive Communications initiated with SEOC.	

Note: All times are approximate and may change due to player actions taken.

Fermi 2 2010 REP Exercise Off-site Scenario

Time	Fermi 2 Events/Actions	SEOC Actions	MEOC Actions	WEOC Actions	JIC Actions	FTC Actions
0930			R/D and CCCs activated	R/D and CCCs activated	JIC Operational.	• FTC operational.
~1030	 General Emergency (GE) declared based on FG1 loss of three fission product barriers. Protective action recommenda tion (PAR) made to State Director. 	 Evaluates PAR. Decides on a Protective Action Order (PAO). Notifies JIC, FTC, Ontario, and FEMA of GE. Issues PAO to counties and JIC. Issues agricultural PAOs and lake warning and evacuation. Requests federal assistance via FEMA. Issues further PAOs as needed. 	 Provides necessary EAS information to WEOC. Sounds sirens. Implements PAO. R/D and CCCs Operational 	 Issues EAS message. Implements PAO. R/D and CCCs Operational 	 Informed of GE and PAO by SEOC. Informs media. 	• Informed of GE and PAO by SEOC.

Note: All times are approximate and may change due to player actions taken.

Fermi 2 2010 REP Exercise Off-site Scenario

Time	Fermi 2 Events/Actions	SEOC Actions	MEOC Actions	WEOC Actions	JIC Actions	FTC Actions
~1155	Plant issues second PAR to SEOC based on change in meteorologic al stability class.	 Evaluates PAR. Decides on a Protective Action Order (PAO). Issues PAO to counties. Notifies JIC, FTC, Ontario, and FEMA of PAO. 	 Provides necessary EAS information to WEOC. Sounds sirens. Implements PAO. 	 Issues EAS message. Implements PAO. 	 Informed of PAO by SEOC. Informs media. 	• Informed of PAO by SEOC.
1300- 1330	Plant terminates exercise play with State.	 Exercise play terminated when all objectives demonstrated. May terminate with approval of State Controller. 	 Exercise play terminated when all objectives demonstrate d. May terminate with approval of State Controller 	 Exercise play terminated when all objectives demonstrate d. May terminate with approval of State Controller. 	 Exercise play terminated when all objectives demonstrated. May terminate with approval of State Controller 	 Exercise play terminated when all objectives demonstrated May terminate with approval of State Controller

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