



Monticello Nuclear Generating Plant

After Action Report/ Improvement Plan

Exercise Date - July 23, 2013

Radiological Emergency Preparedness (REP) Program



FEMA

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Monticello Nuclear Generating Plant After Action Report/Improvement Plan

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EXECUTIVE SUMMARY

On July 23, 2013, a Radiological Emergency Preparedness (REP) Partial Participation Plume Exposure Pathway Exercise evaluation was conducted by the U.S. Department of Homeland Security (DHS)/Federal Emergency Management Agency (FEMA) in the 10-mile Emergency Planning Zone (EPZ) around the Monticello Nuclear Generating Plant (MNGP). The purpose of the exercise was to assess the level of State and local preparedness in responding to a radiological emergency. This exercise was held in accordance with the 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 August 23, 2011. The qualifying emergency preparedness exercise was conducted on January 7, 1981.

EPZ DESCRIPTION

The MNGP was located within the city limits of Monticello, Minnesota. The plant consists of approximately 1,500 acres of land. The northwest and southwest sectors were mainly agricultural. The northeast and southeast sectors were urban and manufacturing. Part of this property is on the north bank of the Mississippi River in Sherburne County and part is on the south bank of Wright County. The northwestern suburbs of Minneapolis are about 30 miles southeast of the MNGP.

The 10-mile EPZ for the MNGP consisted of a circle with the utility at the center point. The EPZ extended 10-miles outward in all directions from the plant for the plume exposure pathway planning zone and 50 miles outward for the Ingestion Pathway Zone (IPZ). In the event of a serious accident, the plume exposure planning zone will be in the area in which intensive efforts will be made to notify and protect residents and transient populations from exposure to radiation. The population in the MNGP 10-mile EPZ is 71,713 (2012 Evacuation Time Estimate). This figure represents the permanent population in the municipalities and unincorporated areas located in the 10-mile EPZ.

There are numerous lakes in the 10-mile EPZ, which are used for recreational purposes. Parts of Lake Saint Marie Park, Sand Dunes State Park and Game Refuge are within the 10-mile EPZ. The Mississippi River flows from the northwest to southeast through the 10-mile EPZ. The three

major highways passing through the area are Interstate 94, U.S. 10, and State Highways 25 and 55. Railroad access is available from Burlington Northern and NorthStar Railway. Major waterways are the Mississippi Scenic River and Crow River and the Elk River and Saint Francis River watersheds; however these waterways are not navigable. There are no major airports in the 10-mile EPZ.

The following Sub-Areas are included within the 10-mile EPZ: 2, 5N, 5E, 5S, 5W, 10N, 10E, 10SE, 10S, 10SW, 10W and 10NW.

The 50-mile IPZ for the MNGP has an estimated population of approximately 3,591,108 as of the year 2008. Approximately 90% reside in the Minneapolis-St. Paul metropolitan area. There are 22 counties in the 50-mile EPZ. They are: Anoka, Benton, Carver, Chisago, Dakota, Hennepin, Isanti, Kanabec, Kandiyohi, McLeod, Meeker, Mille Lacs, Morrison, Pine, Ramsey, Renville, Scott, Sherburne, Sibley, Stearns, Washington and Wright.

The DHS/FEMA wishes to acknowledge the efforts of the many individuals who participated in this exercise. In the State of Minnesota, the Minnesota Division of Homeland Security and Emergency Management and Sherburne and Wright Counties participated.

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 were evident during this exercise.

This Final Report contains the evaluation of the biennial exercise and the evaluation of the following out-of-sequence interviews and activities:

- Protective Actions for Schools for the St. Michael - Albertville, Buffalo and the Big Lake School Districts.

There were no Deficiencies or Areas Requiring Corrective Action (ARCAs) identified for the State of Minnesota or the Counties of Sherburne and Wright during this exercise.

There was one ARCA identified and corrected on the spot during this exercise for the Counties of Sherburne and Wright.

There was one Plan Issue each identified for the State of Minnesota and for the Counties of Sherburne and Wright during this exercise.

The Plan Issue, 39-13-1e1-P-06 for the State of Minnesota was identified under Criterion 1.e.1, Equipment and Supplies to Support Operations. The current Radiological Accident Deployment Field Team Standard Operating Guidelines (REP-1), rev 27, 4/12/2013, pages 7 through 9, describes Dosimetry issued to Field Monitoring Teams as consisting of one Thermoluminescent Dosimeter (TLD) and one Canberra UltraRadiac Electronic Personal Dosimeter. Attachment 5 – Sample Kit Inventory (dated Rev 25, 5/2009), page 44, however, describes Dosimetry equipment as including three dosimeter packs, each consisting of one TLD, one 0-200 mR Direct-Reading Dosimeter (DRD), one 0-20 R DRD and one DRD charger. This Plan Issue remains open.

The Plan Issue, 39-13-3a1-P-03 for the County of Sherburne was identified under Criterion 3.a.1, Implementation of Emergency Worker Exposure Control. Written and audio/visual plans, guides and instructions concerning the types of DRD's to be issued to Sherburne County emergency workers who are assigned duties inside the 10-mile Emergency Planning Zone (EPZ) are inconsistent and lead to the issuing of inappropriate dosimetry during the July 23, 2013, MNGP REP Exercise. This Plan Issue remains open.

The Plan Issue, 39-13-3a1-P-05 for the County of Wright was identified under Criterion 3.a.1, Implementation of Emergency Worker Exposure Control. Written and audio/visual plans, guides and instructions concerning the types of DRD's to be issued to Wright County emergency workers who are assigned duties inside the 10-mile EPZ are inconsistent and lead to the issuing of inappropriate dosimetry during the July 23, 2013, MNGP REP Exercise. This Plan Issue remains open.

There were three ARCA's resolved by the State of Minnesota from the Prairie Island Nuclear Generating Plant Full Participation Plume Exercise that were previously demonstrated on July 10, 2012.

INTRODUCTION - EXERCISE BASIS

On December 7, 1979, the President directed the FEMA to assume the lead responsibility for all offsite nuclear planning and response. The 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 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 the FEMA 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.

The FEMA 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 the RERP's 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 the DHS/FEMA.

Formal submission of the RERP's for the MNGP to the FEMA Region V by the State of Minnesota and involved local jurisdictions occurred on February 1, 1983. Formal approval of these RERP's was granted by the FEMA on May 16, 1985, under 44 CFR 350.

A REP Partial Participation Plume Exposure Pathway Exercise was conducted on July 23, 2013, and evaluated by the DHS/FEMA to assess the capabilities of State and local offsite emergency preparedness organizations in implementing their RERPs and procedures to protect the public's health and safety during a radiological emergency involving the MNGP. The purpose of this exercise report is to present the exercise results and findings on the performance of the Offsite Response Organizations (OROs) during a simulated radiological emergency.

The findings presented in this report are based on the evaluations of the Federal evaluation team, with final determinations made by the DHS/FEMA Region V RAC 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; and
- DHS/FEMA Radiological Emergency Preparedness: Exercise Evaluation Methodology; as published in the FEMA Radiological Emergency Preparedness Manual, dated April 2012.

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

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

Section 3 of this report, entitled "Analysis of Capabilities," presents detailed information on the demonstration of applicable exercise criteria at each jurisdiction or functional entity evaluated in

a jurisdiction-based, issues-only format. This section also contains: (1) descriptions of all Deficiencies, ARCA's, and Plan Issues (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 and Plan Issues assessed during previous exercises and the status of the ORO 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.

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

SECTION 1: EXERCISE OVERVIEW

1.1 Exercise Details

Exercise Name

Monticello Nuclear Generating Plant

Type of Exercise

Plume

Exercise Date

July 23, 2013

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 Monticello Nuclear Generating Plant exercise:

State Jurisdictions

- Bureau of Criminal Apprehension
- Department of Public Safety
- Department of Public Safety, Homeland Security and Emergency Management
- Minnesota Department of Agriculture
- Minnesota Department of Education
- Minnesota Department of Health
- Minnesota Department of Health, Public Health Laboratory
- Minnesota Department of Human Services
- Minnesota Department of Military Affairs
- Minnesota Department of Natural Resources
- Minnesota Department of Transportation

Minnesota Geospatial Information Office
Minnesota School Safety Center
Minnesota State Patrol
Minnesota Voluntary Organizations Active in Disasters
State of Minnesota Emergency Medical Services Regulatory Board
State of Minnesota Governor's Office
State of Minnesota National Guard

Risk Jurisdictions

Big Lake School District
Buffalo Area School District
Sherburne County Department of Health
Sherburne County Emergency Management
Sherburne County Public Works Department
Sherburne County Radiological Defense Officer
Sherburne County Sheriff's Office
Sherburne County Social Services
St. Michael - Albertville School District
Wright County Department of Health
Wright County Emergency Management
Wright County Radiological Defense Officer
Wright County Sheriff's Office

Support Jurisdictions

Amateur Radio Emergency Services
American Red Cross
City of Monticello
Salvation Army

Private Organizations

Xcel Energy

Federal Jurisdictions

Federal Emergency Management Agency
U.S. Department of Agriculture

SECTION 2: EXERCISE DESIGN SUMMARY

2.1 Exercise Purpose and Design

The Department of Homeland Security/Federal Emergency Management Agency (DHS/FEMA) Region V Office evaluated the Monticello Nuclear Generating Plant (MNGP) Radiological Emergency Preparedness (REP) Partial Participation Plume Exposure Pathway Exercise conducted on July 23, 2013, to assess the capabilities of local emergency preparedness organizations in implementing their Radiological Emergency Radiological Plan and procedures to protect the public's health and safety during a radiological emergency involving the MNGP. The purpose of this report is to present the results and findings on the performance of the Offsite Response Organizations (ORO) during a simulated radiological emergency.

2.2 Exercise Objectives, Capabilities and Activities

Exercise objectives and identified Capabilities/Radiological Emergency Preparedness Criteria selected to be demonstrated are discussed in Appendix E "Exercise Plan." The Exercise Planning Team selected objectives that focus on evaluating emergency response procedures, identifying areas for improvement, and fostering collaboration between the various ORO's and stakeholders. This exercise focused on the following objectives:

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

2.3 Scenario Summary

Appendix F "Scenario Details," contains a summary of the Exercise Scenario, a simulated sequence of events that was used as the basis for invoking emergency response actions by ORO's in the MNGP REP Partial Participation Plume Exposure Pathway exercise on July 23, 2013.

This exercise scenario was submitted by the State of Minnesota and Xcel Energy and accepted by the DHS/FEMA Region V on May 23, 2013.

During the exercise, in addition to information and data provided through the MNGP onsite scenario, controllers from the State of Minnesota 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 ORO's.

The details of the scenario are included in Appendix F “Scenario Details.”

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 July 23, 2013, Radiological Emergency Preparedness (REP) Partial Participation Plume Exposure Pathway Exercise conducted to test the offsite emergency response capabilities of State and local governments in the 10-Mile EPZ surrounding the Monticello Nuclear Generating Plant (MNGP).

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

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

- **M – Met:** The status of a REP exercise Evaluation Area Criterion indicating that the participating Offsite Response Organization's (ORO) demonstrated all demonstration criteria for the Evaluation Area Criterion to the level required in the extent-of-play agreement with no Deficiencies, Areas Requiring Corrective Action (ARCA) or Plan Issues assessed in the current exercise and no unresolved prior ARCAs.
- **D – Deficiency:** An observed or identified inadequacy of organizational performance in an exercise that could cause a finding that offsite emergency preparedness is not adequate to provide reasonable assurance that appropriate protective measures can be taken in the event of a radiological emergency to protect the health and safety of the public living in the vicinity of a nuclear power plant.
- **A – ARCA –** An observed or identified inadequacy of organizational performance in an exercise that is not considered, by itself, to adversely impact public health and safety. Listing of the demonstrated exercise criteria under which one or more ARCAs was/were assessed during the current exercise or ARCAs assessed during prior exercises remain unresolved. Included is a description of any ARCAs assessed during this exercise and the recommended corrective action to be demonstrated before or

during the next biennial exercise.

- P – Plan Issue: An observed or identified inadequacy in the ORO’s emergency plan or or implementing procedures, rather than in the ORO’s performance.
- N – Not Demonstrated: Exercise criteria that were not demonstrated as scheduled during this exercise and the reason(s) they were not demonstrated.
- Prior ARCAs - Resolved – Descriptions of ARCAs assessed during previous exercises that were resolved and the corrective actions demonstrated, in this exercise.
- Prior ARCAs - Unresolved – Descriptions of ARCAs assessed during prior exercises that were not resolved in this exercise. Included is the reason the ARCA remains unresolved and recommended corrective actions to be demonstrated before or during the next exercise.
- Prior Plan Issues - Resolved – Descriptions of Plan Issues assessed during previous exercises that were resolved and the corrective actions demonstrated, in this exercise.
- Prior Plan Issues - Unresolved – Descriptions of Plan Issues assessed during prior exercises that were not resolved in this exercise. Included is the reason the Plan Issue remains unresolved and recommended corrective actions to be demonstrated before or during the next exercise.

3.2 Summary Results of Exercise Evaluation

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

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

The Department of Homeland Security/Federal Emergency Management Agency (DHS/FEMA) has developed a standardized system for numbering exercise issues. This system is used to achieve consistency in numbering exercise issues among the DHS/FEMA Regions and site-specific exercise reports within each Region. It also is used to expedite tracking of exercise issues on a nationwide basis.

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

- Plant Site Identifier – A two-digit number, corresponding to the Utility Billable Plant Site Code (39 for the MNGP).
- Exercise Year – The last two digits of the year the exercise was conducted.
- Criterion Number – An alpha and two-digit number corresponding to the criteria numbers in the six Exercise Evaluation Areas described in the FEMA REP Program Manual, dated April 2012.
- Issue Classification Identifier – (D = Deficiency, A = ARCA, P = Plan Issue).
- Exercise Identification Number – A separate two or three-digit indexing number assigned to each issue identified in the exercise.

Table 3.1 - Summary of Exercise Evaluation (2 pages)

<p style="text-align: center;">DATE: 2013-07-23 SITE: Monticello Nuclear Generating Plant, MN M: Met, A: ARCA, D: Deficiency, P: Plan Issue, N: Not Demonstrated</p>			MN-BCA-IWP	State of Minnesota	Planning Assessment Center	Joint Operations Center	MN-Public Inquiry Hotline-EOC	MN-Sherburne County EOC-RPC	MN-Wright County EOC-RPC	MN-Rad. Accident Deployment Team #1	MN-Sherburne County-MSP-TACP	Sherburne County-IWP
Emergency Operations Management												
Mobilization	1a1	M	M	M	M		M	M				M
Facilities	1b1											
Direction and Control	1c1		M	M	M							
Communications Equipment	1d1	M	M	M	M	M					M	M
Equipment and Supplies to Support Operations	1e1		M	M	M	M				P	M	
Protective Action Decision Making												
EW Exposure Control Decisions	2a1		M	M			M	M				
PARs	2b1		M	M								
PADs	2b2		M	M			M	M				
PADs for Disabled/Functional Needs	2c1		M				M	M				
Ingestion PADs	2d1											
RRR Decisions	2e1											
Protective Action Implementation												
EW Exposure Control Implementation	3a1		M	M						M	M	
KI Public/Institutionalized	3b1		M	M								
PAD Implementation Disabled/Functional Needs	3c1											
PAD Implementation Schools	3c2		M									
TACP Establishment	3d1		M								M	
Impediments	3d2		M									
Implement Ingestion PADs	3e1											
Ingestion Pathway Decisions	3e2											
Implementation of RRR Decisions	3f1											
Field Measurement and Analysis												
RESERVED	4a1											
Field Team Management	4a2											
Field Team Operations	4a3									M		
Field Team Sampling	4b1											
Laboratory Operations	4c1											
Emergency Notification and Public Info												
Initial Alert & Notification	5a1		M	M			M	M				
RESERVED	5a2											
Backup Alert & Notification	5a3											
Exception Area Alerting	5a4											
Subsequent Information & Instructions	5b1		M		M	M	M	M				
Support Operations/Facilities												

Unclassified

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

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

<p style="text-align: center;">DATE: 2013-07-23 SITE: Monticello Nuclear Generating Plant, MN M: Met, A: ARCA, D: Deficiency, P: Plan Issue, N: Not Demonstrated</p>			Sherburne County	Sherburne County EOC-TACP	Sherburne County-SEOC-JIC-PIO	Sherburne County-Big Lake SD-EV2	Wright County-IWP	Wright County	Wright County EOC-TACP	Wright County-SEOC-JIC-PIO	Wright County-St. Michael Alberts.-EV2	Wright County-Buffalo School Dis.-EV2
Emergency Operations Management												
Mobilization	1a1	M					M	M				
Facilities	1b1											
Direction and Control	1c1	M						M				
Communications Equipment	1d1	M	M		M	M	M	M			M	M
Equipment and Supplies to Support Operations	1e1	M	M		M		M	M			M	M
Protective Action Decision Making												
EW Exposure Control Decisions	2a1	M						M				
PARs	2b1											
PADs	2b2	M						M				
PADs for Disabled/Functional Needs	2c1	M						M				
Ingestion PADs	2d1											
RRR Decisions	2e1											
Protective Action Implementation												
EW Exposure Control Implementation	3a1	P	M					P	M			
KI Public/Institutionalized	3b1	M						M				
PAD Implementation Disabled/Functional Needs	3c1	M						M				
PAD Implementation Schools	3c2	M			M		M				M	M
TACP Establishment	3d1	M	M					M	M			
Impediments	3d2	M						M				
Implement Ingestion PADs	3e1											
Ingestion Pathway Decisions	3e2											
Implementation of RRR Decisions	3f1											
Field Measurement and Analysis												
RESERVED	4a1											
Field Team Management	4a2											
Field Team Operations	4a3											
Field Team Sampling	4b1											
Laboratory Operations	4c1											
Emergency Notification and Public Info												
Initial Alert & Notification	5a1	M						M				
RESERVED	5a2											
Backup Alert & Notification	5a3											
Exception Area Alerting	5a4											
Subsequent Information & Instructions	5b1	M		M				M		M		
Support Operations/Facilities												

Unclassified
Radiological Emergency Preparedness Program (REP)

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

3.3 Criteria Evaluation Summaries

3.3.1 Minnesota Jurisdictions

3.3.1.1 State of Minnesota - Bureau of Criminal Apprehension - Initial Warning Point

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

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

3.3.1.2 State of Minnesota - Emergency Operations Center

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

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

3.3.1.3 State of Minnesota - Emergency Operations Center - Planning and Assessment Center

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

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

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

3.3.1.4 State of Minnesota - Emergency Operations Center - Joint Information Center

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

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

3.3.1.5 State of Minnesota - Emergency Operations Center - Public Inquiry Hotline Center

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

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

3.3.1.6 State of Minnesota - Sherburne County Emergency Operations Center - Regional Program Coordinator

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

- a. MET: 1.a.1, 2.a.1, 2.b.2, 2.c.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

3.3.1.7 State of Minnesota - Wright County Emergency Operations Center - Regional Program Coordinator

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

- a. MET: 1.a.1, 2.a.1, 2.b.2, 2.c.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

3.3.1.8 State of Minnesota - Radiological Accident Deployment Team #1

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

- a. MET: 3.a.1, 4.a.3.
- b. AREAS REQUIRING CORRECTIVE ACTION: None
- c. DEFICIENCY: None
- d. PLAN ISSUES: 1.e.1.

ISSUE NO.: 39-13-1e1-P-06

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

CONDITION: The current RAD FMT Standard Operating Guidelines (REP-1), rev 27, 4/12/2013, pages 7 through 9, describes Dosimetry issued to FMT's as consisting of one Thermoluminescent Dosimeter (TLD) and one Canberra UltraRadiac Electronic Personal Dosimeter (EPD). Attachment 5 – Sample Kit Inventory (dated Rev 25, 5/2009), page 44, however, describes Dosimetry equipment as including three dosimeter packs, each consisting of one TLD, one 0-200 mR Direct-Reading Dosimeter (DRD), one 0-20 R DRD, and one DRD charger.

Page 9 states that FMT personnel are to contact the Command Van if the EPD indicates 500 mR (half of the turn-back limit). The RAD Team Captain Guidelines (REP-2), revision 15, 6/7/2010, page 9, however, states that FMT personnel are to report dosimeter readings when the 0-200 mR DRD reaches $\frac{3}{4}$ scale (150 mR).

POSSIBLE CAUSE: Canberra UltraRadiac EPDs were added to FMT equipment and DRDs were removed during the last procedure update, but not all references were adequately updated to reflect the change.

REFERENCE: 1. Radiological Accident Deployment Field Team Standard Operating Guidelines (REP-1), revision 27, 4/12/2013, pages 7-9, Attachment 5 (rev 25, 5/2009), page 44.
2. Radiological Accident Deployment Field Team Captain Guidelines (REP-2), revision 15, 6/7/2010, page 9.

EFFECT: Confusion could result during equipment inventory, delaying FMT dispatch into the field, and for dosimeter reporting values.

RECOMMENDATION: Update both procedures to reflect current equipment inventory and reporting values.

SCHEDULE OF CORRECTIVE ACTION: The State of Minnesota is updating the Radiological Accident Deployment Field Team Standard Operating Guidelines to ensure that the proper equipment is identified throughout the document.

- e. NOT DEMONSTRATED: None
- f. PRIOR ISSUES - RESOLVED: 1.e.1, 3.a.1, 4.a.3.

ISSUE NO.: 50-12-1e1-A-10

ISSUE: The Ludlum 2241 radiation instrument with the 44-6 beta - gamma detector attached was only operationally checked on setting #1 to measure activity, but not initially operationally checked on setting #4 to measure exposure rate, nor did the RAD Field Team Standard Operating Guidelines indicate that the 44-6 detector be checked on both settings.

CORRECTIVE ACTION DEMONSTRATED: As part of the Monticello Nuclear Generating Plant Radiological Emergency Preparedness Exercise, the State of Minnesota the RAD FMT successfully demonstrated a source check on the Ludlum Model 2241-3 survey meter with the Model 44-6 detector on both activity and exposure rate settings.

Corrective actions included a procedure change to the “Minnesota Radiological Emergency Preparedness RAD Field Team Standard Operating Guidelines (REP-1)”, Revision 27, dated April 12, 2013. Under Section K, “Ludlum 2241 Response Kit Setup and Checks” for the Model 44-6 Beta-Gamma probe, the procedure stated to perform checks for both Setting #1 (counts per minute) and Setting #4 (dose rate), comparing each reading with the corresponding calibration label range on the Ludlum. If values fall outside this range, the procedure stated to notify the RAD Team Captain.

The RAD FMT demonstrated this source check. The Ludlum Model 2241-3 survey meter was connected to the Model 44-6 detector. The RAD FMT placed the detector to the attached one μCi Cs-137 source with the flap opened, and ensured readings were within the range specified on the attached sticker for both counts per minute (Setting #1) and mR/hour (Setting #4). The Ludlum Model 2241-3 survey meter was color coded to match the corresponding Model 44-6 detector. The meter was calibrated on April 22, 2013 with calibration due on April 22, 2014.

ISSUE NO.: 50-12-3a1-A-11

ISSUE: The turn-back value is based on exposure rate, but the Standard Operating Guidelines instruct field team members to set their survey instrument to measure activity.

CORRECTIVE ACTION DEMONSTRATED: As part of the Monticello Nuclear Generating Plant Radiological Emergency Preparedness Exercise, the State of Minnesota RAD FMT #1 was provided with appropriate dosimetry and procedures, and managed radiological exposure in accordance with the State of Minnesota plans

and procedures. The field team personnel periodically, and at the end of their mission read their dosimeters and recorded the readings on their "Personnel Exposure Control Forms". Field team members also maintained appropriate record-keeping for their use of potassium iodide.

Canberra UltraRadiac Electronic Personal Dosimeters have been added to the equipment issued to the RAD teams. The Dose Alarm was verified as being set to alarm at one Roentgen (1 R). The Exposure Rate Low Alarm was set at 1 mR/hr and the Rate High Alarm was set at 100 mR/hr. If reached, an exposure rate of 100 mR/hr would cause the UltraRadiac to alarm and adequately alert the RAD team of reaching the withdrawal rate.

ISSUE NO.: 50-12-4a3-A-12

ISSUE: Team members "estimated" a 12 minute sampling time which was not a long enough sampling time to reach the target sampling volume of 10 cubic feet. Based on the device flow rate of 0.7 cubic feet per minute and the device correction factor of 1.01, the air sampling unit should have operated for 14 minutes and 8 seconds to obtain the target volume of 10 cubic feet.

CORRECTIVE ACTION DEMONSTRATED: As part of the Monticello Nuclear Generating Plant Radiological Emergency Preparedness Exercise, the State of Minnesota RAD FMT #1 made and recorded ambient radiation measurements at appropriate locations, and collected radioiodine and particulate samples. The field team moved to an appropriate low-background location, as specified in the plans and procedures, to determine whether any significant amount of radioactivity had been collected on the sampling media.

RADeCO H810DC air samplers had been added to the equipment issued to the RAD teams. The H810DC air sampler was programmed to collect a 10 cubic foot air sample, then shut off automatically. The RAD FMT team successfully demonstrated operation of the air sampler.

- g. PRIOR ISSUES - UNRESOLVED: None

3.3.1.9 State of Minnesota - Sherburne County Emergency Operations Center - Minnesota State Police - Traffic and Access Control Point

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

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

3.3.2 Risk Jurisdictions

3.3.2.1 Sherburne County - Initial Warning Point

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

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

3.3.2.2 Sherburne County - Emergency Operations Center

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

- a. MET: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 2.a.1, 2.b.2, 2.c.1, 3.b.1, 3.c.1, 3.c.2, 3.d.1, 3.d.2, 5.a.1, 5.b.1.
- b. AREAS REQUIRING CORRECTIVE ACTION: 3.a.1.

ISSUE NO.: 39-13-3a1-A-02

CRITERION: The Offsite Response Organizations issue appropriate dosimetry, potassium iodide (KI), and procedures, and manage radiological exposure to emergency workers in accordance with the plans/procedures. Emergency workers periodically and at the end of each mission read their dosimeters and record the readings on the appropriate exposure record or chart. Appropriate record-keeping of the administration of KI for emergency workers is maintained.

CONDITION: The Sherburne County Radiological Officer (RO) and staff issued only one high-range 0-20 R Direct-Reading Dosimeter (DRD) to each emergency worker assigned to duties inside the 10-mile Emergency Planning Zone (EPZ). The high-range DRD's were issued during three separate briefings to County Public Works personnel, one Sheriff's Deputy and one State Patrol Officer who were assigned to traffic and access control duties. The workers were also issued written instructions ("Green Cards" – titled "Minnesota Radiological Emergency Preparedness Program Emergency Worker Exposure Briefing and Log") that required them to report when their DRD's reached 150 mR. The 0-20 R DRD issued to each worker could not be used to reliably measure an exposure of 150 mR (i.e., 0.15 R). These cards also indicated that both high-range 0-20 R and low-range 0-200 mR DRD's were to be issued.

POSSIBLE CAUSE: The RO did not issue both high and low range DRD's to emergency workers deployed to the 10-mile EPZ, even though the County had an adequate supply of low-range 0-200 mR, as well as high-range 0-20 R DRD's, and did not recognize that 0-20 R DRD's cannot be used to report low range readings, as was instructed on the "green card" issued to the workers. A training video developed by Minnesota Public Safety Homeland Security Emergency Management also indicated that both low and high and low range DRD's are issued. Instead, the RO strictly followed the Sherburne County RO Standard Operating Guidelines, which on Page 1 stated that dosimetry packets were to contain a 0-20 R DRD, and on Page 5 (Step 4) stated that at the General Emergency Classification Level "... all emergency personnel entering the evacuated area have appropriate dosimetry ...", parenthetically specifying a 0-20 R DRD. The certified dosimetry inventory for Sherburne County indicated that the County had a sufficient quantity of both low range 0-200 mR and high-range 0-20 R DRD's to support anticipated emergency

operations.

REFERENCE: NUREG-0654/FEMA-REP-1, J.10.e; K.3.a, b; K.4 - Requires Offsite Response Organizations to issue appropriate dosimetry and manage radiological exposure to emergency workers in accordance with the plans and procedures.

Sherburne County Radiological Officer Standard Operating Guide requires County ROs to issue 0-20 R DRD's to emergency personnel deployed to the 10-mile EPZ.

Minnesota Radiological Emergency Preparedness Program Emergency Worker Exposure Briefing and Log ("Green Card") requires the following information to be logged for both high and low-range DRD's: Serial #; Initial Reading; Final Reading; Net Reading. The log also requires emergency personnel deployed to the 10-mile EPZ to report 0-200 mR DRD radiological exposures when they reach 150 mR.

Minnesota Department of Public Safety/Homeland Security Emergency Management – Emergency Worker Briefing – [Web-Based Video]
<http://www.youtube.com/watch?v=TW4WwyaGhc4&feature=youtu.be>. Indicates both high and low range DRD's are to be issued to emergency workers.

EFFECT: Issuing only high-range (0-20 R) DRD's to emergency personnel deployed inside the 10-mile EPZ would leave them incapable of monitoring low-range (0-200 mR) radiological exposures as was required.

CORRECTIVE ACTION DEMONSTRATED: On July 25, 2013, the State of Minnesota retrained Sheburne County radiological staff on the procedures for issuing dosimetry to emergency workers. The Sheburne County radiological staff successfully redemonstrated providing the correct dosimetry to an emergency worker (Deputy Sheriff) between 1030 and 1049 hours. Both a low range 0-200 mR DRD and a high-range DRD 0-20 R were issued to the Deputy by the RO. The RO explained during the briefing that the low-range DRD was to be used for reporting when exposure reached 150 mR, and the high-range DRD would be used to report when exposure reached the turn-back limit of 1 R and pre-authorized limit of 3 R. The emergency worker (Deputy Sheriff) was interviewed and he was aware of exposure turn-back readings of 1 R and the pre-authorized limit of 3 R.

- c. DEFICIENCY: None
- d. PLAN ISSUES: 3.a.1.

ISSUE NO.: 39-13-3a1-P-03

CRITERION: The Offsite Response Organizations issue appropriate dosimetry, potassium iodide (KI), and procedures, and manage radiological exposure to emergency workers in accordance with the plans/procedures. Emergency workers periodically and at the end of each mission read their dosimeters and record the readings on the appropriate exposure record or chart. Appropriate record-keeping of the administration of KI for emergency workers is maintained.

CONDITION: Written and audio/visual plans, guides and instructions concerning the types of DRD's to be issued to Sherburne County emergency workers who are assigned duties inside the 10-mile EPZ are inconsistent and lead to the issuing of inappropriate dosimetry during the July 23, 2013, Monticello Nuclear Generating Plant Radiological Emergency Preparedness Exercise.

“Green Cards” – titled “Minnesota REP Program Emergency Worker Exposure Briefing and Log” – required emergency workers to report when a DRD reading of 150 mR was reached. However, the 0-20 R DRDs issued by County radiological staff could not be used to reliably measure an exposure of 150 mR (i.e., 0.15 R). The “Green Card” and Minnesota Public Safety Homeland Security Emergency Management training video titled “EW Briefing” provided instructions regarding the number and range of DRD's to be issued in concert with the County RO Standard Operating Guide. The County plan was inconsistent with the Standard Operating Guideline used by the County RO, whereby the “Green Card” explicitly identified both DRD's to be provided to the emergency worker while the SOG specified only high-range (0-20 R) DRD's.

POSSIBLE CAUSE: The RO did not issue both high and low range DRD's to emergency personnel deployed to the 10-mile EPZ, even though the County had an adequate supply of low-range 0-200 mR DRD's, and did not recognize that 0-20 R DRD's cannot be used to report low range readings, as was instructed on the “Green

Card” and in the Minnesota Public Safety Homeland Security Emergency Management training video titled “EW Briefing.” Instead, the RO strictly followed the Sherburne County plan and County RO Standard Operating Guidelines, which on Page 1 stated that dosimetry packets were to contain a 0-20 R DRD, and on Page 5 (Step 4) stated that at the General Emergency Classification Level “... all emergency personnel entering the evacuated area have appropriate dosimetry ...”, parenthetically specifying a 0-20 R DRD. The certified dosimetry inventory for Sherburne County indicated that the County had a sufficient quantity of both low range 0-200 mR and high-range 0-20 R DRD's to support anticipated emergency operations.

REFERENCE: NUREG-0654/FEMA-REP-1, J.10.e; K.3.a, b; K.4 - Requires Offsite Response Organizations to issue appropriate dosimetry and manage radiological exposure to emergency workers in accordance with the plans and procedures.

Sherburne County Radiological Officer Standard Operating Guide - Requires County RO's to issue 0-20 R DRD's to emergency personnel deployed to the 10-mile EPZ.

Minnesota Radiological Emergency Preparedness Program Emergency Worker Exposure Briefing and Log (“Green Card”) requires the following information to be logged for both high and low-range DRD's: Serial #; Initial Reading; Final Reading; Net Reading. The log also requires emergency personnel deployed to the 10-mile EPZ to report 0-200 mR DRD radiological exposures when they reach 150 mR.

Minnesota Public Safety Homeland Security Emergency Management – Emergency Worker Briefing – [Web-Based Video]

<http://www.youtube.com/watch?v=TW4WwyaGhc4&feature=youtu.be>. Indicates both high and low range DRD's are to be issued to emergency workers.

EFFECT: Issuing only high-range 0-20 R DRD's to emergency personnel deployed to the 10-mile EPZ would leave them incapable of monitoring low-range 0-200 mR radiological exposures, as is required. The conflicting instructions given to emergency workers could also lead to inaccurate radiological exposure record keeping.

RECOMMENDATION: Reconcile plans, Standard Operating Guidelines and other written and audio/video instructions (e.g., “Green Cards” and the Minnesota Homeland Security and Emergency Management “Emergency Worker Briefing”) that are given to emergency workers to provide appropriate, clear, and consistent instructions regarding the number and range of DRD's to be issued to emergency workers while they are either in or outside of the 10-mile EPZ and the reporting requirements associated with each type of DRD.

SCHEDULE OF CORRECTIVE ACTION: Sherburne County will issue a 0-200 mR dosimeter and a 0-20 R dosimeter to any Emergency Worker that enters the 10-mile Emergency Planning Zone.

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

3.3.2.3 Sherburne County - Emergency Operations Center - Traffic and Access Control Point

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

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

3.3.2.4 Sherburne County - State Emergency Operations Center/Joint Information Center - Public Information Officer

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

- 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

3.3.2.5 Sherburne County - Big Lake School District - Evacuation School

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

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

3.3.2.6 Wright County - Initial Warning Point

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

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

3.3.2.7 Wright County - Emergency Operations Center

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

- a. MET: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 2.a.1, 2.b.2, 2.c.1, 3.b.1, 3.c.1, 3.c.2, 3.d.1, 3.d.2, 5.a.1, 5.b.1.
- b. AREAS REQUIRING CORRECTIVE ACTION: 3.a.1.

ISSUE NO.: 39-13-3a1-A-04

CRITERION: The Offsite Response Organizations issue appropriate dosimetry, potassium iodide (KI), and procedures, and manage radiological exposure to emergency workers in accordance with the plans/procedures. Emergency workers periodically and at the end of each mission read their dosimeters and record the readings on the appropriate exposure record or chart. Appropriate record-keeping of the administration of KI for emergency workers is maintained.

CONDITION: Emergency workers received inconsistent dosimetry briefings and were issued dosimetry which could not measure their turn back exposure limits.

POSSIBLE CAUSE: Wright County Emergency Response Plan, Annex H: Radiological Exposure Control and associated Standard Operating Procedures and checklists are not consistent with the Minnesota Radiological Emergency Preparedness Program Emergency Worker Exposure Briefing and Log or Radiological Emergency Preparedness Emergency Worker Handbook which are included in the Emergency Worker Dosimetry Kits. The Wright County Emergency Response Plan, Standard Operating Procedures and checklists do not clearly specify what dosimetry is required for specific Emergency Worker assignments.

REFERENCE: Wright County Emergency Response Plan, Annex H: Radiological Exposure Control; Wright County Radiological Officer Standard Operating Procedures; Wright County Emergency Operations Center Radiological Officer Briefing Checklist (Attachment 1); Minnesota Radiological Emergency Preparedness Program Emergency Worker Exposure Briefing and Log; Minnesota Radiological Emergency Preparedness Emergency Worker Handbook and NUREG 0654/FEMA REP-1, J.10.e, K.3.a, b; K.4.

EFFECT: Wright County Emergency Workers were issued dosimetry that could not detect their turn back exposure limits (150mR) which could have resulted in unnecessary and/or excessive exposure to radiation.

CORRECTIVE ACTION DEMONSTRATED: On July 25, 2013, the State of Minnesota retrained Wright County radiological staff on the procedures for issuing dosimetry to emergency workers. The Wright County radiological staff successfully

redemonstrated the issuing of dosimetry from 1000 to 1018 hours. Following the training, in conjunction with a radiological briefing, both a low range 0-200 mR Direct Reading Dosimeter (DRD) and a high-range DRD were issued to a Deputy Sheriff by the Radiological Officer (RO). The RO explained during the briefing that the low-range DRD was to be used for reporting when exposure reached 150 mR, and the high-range DRD would be used to report when exposure reached the pre-authorized limit of 3 R. The Deputy was subsequently interviewed by the Evaluator demonstrated that he was to receive both DRDs and was able to correctly articulate his exposure limits and which DRD would be used to monitor the reporting, turn back and maximum (pre-authorized) exposure limits.

- c. DEFICIENCY: None
- d. PLAN ISSUES: 3.a.1.

ISSUE NO.: 39-13-3a1-P-05

CRITERION: The Offsite Response Organizations issue appropriate dosimetry, potassium iodide (KI), and procedures, and manage radiological exposure to emergency workers in accordance with the plans/procedures. Emergency workers periodically and at the end of each mission read their dosimeters and record the readings on the appropriate exposure record or chart. Appropriate record-keeping of the administration of KI for emergency workers is maintained.

CONDITION: Wright County Emergency Response Plan, Annex H: Radiological Exposure Control and associated Standard Operating Procedures and checklists are not consistent with the Minnesota Radiological Emergency Preparedness Program Emergency Worker Exposure Briefing and Log or Radiological Emergency Preparedness Emergency Worker Handbook which are included in the Emergency Worker Dosimetry Kits. The Wright County Emergency Response Plan, Standard Operating Procedures, and checklists do not clearly specify what dosimetry is required for specific Emergency Worker assignments.

POSSIBLE CAUSE: Updates to plans, procedures and checklists were not consistently implemented.

REFERENCE: Wright County Emergency Response Plan, Annex H: Radiological Exposure Control; Wright County RADEF Officer Standard Operating Procedures; Wright County Emergency Operations Center Radiological Officer Briefing Checklist (Attachment 1); Minnesota Radiological Emergency Preparedness Program Emergency Worker Exposure Briefing and Log; Minnesota Radiological Emergency Preparedness Emergency Worker Handbook and NUREG 0654/FEMA REP-1, J.10.e, K.3.a, b; K.4,

EFFECT: Wright County Emergency Workers were issued dosimetry that could not detect their turn back exposure limits which could have resulted in unnecessary and/or excessive exposure to radiation.

RECOMMENDATION: Revise the Wright County Emergency Response Plan, Standard Operating Procedures and checklists to be consistent with the instructions (Green Card) included with the Emergency Worker Dosimetry Kits. Additionally, detailed instructions regarding the assembly of Emergency Worker Dosimetry Kits should be revised to align with the contents specified by the revised plans, Standard Operating Procedures, and supporting documentation.

SCHEDULE OF CORRECTIVE ACTION: Wright County will issue a 0-200 mR dosimeter and a 0-20 R dosimeter to any Emergency Worker that enters the 10-mile Emergency Planning Zone.

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

3.3.2.8 Wright County - Emergency Operations Center - Traffic and Access Control Point

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

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

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

3.3.2.9 Wright County - State Emergency Operations Center/Joint Information Center - Public Information Officer

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

- 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

3.3.2.10 Wright County - St. Michael - Albertville District - Evacuation School

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

- a. MET: 1.d.1, 1.e.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

3.3.2.11 Wright County - Buffalo School District - Evacuation School

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

- a. MET: 1.d.1, 1.e.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

SECTION 4: CONCLUSION

There were no Deficiencies or Areas Requiring Corrective Action (ARCAs) identified for the State of Minnesota or the Counties of Sherburne and Wright during this exercise.

There was one ARCA identified and corrected on the spot during this exercise for the Counties of Sherburne and Wright.

There was one Plan Issue each identified for the State of Minnesota and for the Counties of Sherburne and Wright during this exercise.

The Plan Issue, 39-13-1e1-P-06 for the State of Minnesota was identified under Criterion 1.e.1, Equipment and Supplies to Support Operations. The current Radiological Accident Deployment Field Team Standard Operating Guidelines (REP-1), rev 27, 4/12/2013, pages 7 through 9, describes Dosimetry issued to Field Monitoring Teams as consisting of one Thermoluminescent Dosimeter (TLD) and one Canberra UltraRadiac Electronic Personal Dosimeter. Attachment 5 – Sample Kit Inventory (dated Rev 25, 5/2009), page 44, however, describes Dosimetry equipment as including three dosimeter packs, each consisting of one TLD, one 0-200 mR Direct-Reading Dosimeter (DRD), one 0-20 R DRD and one DRD charger. This Plan Issue remains open.

The Plan Issue, 39-13-3a1-P-03 for the County of Sherburne was identified under Criterion 3.a.1, Implementation of Emergency Worker Exposure Control. Written and audio/visual plans, guides and instructions concerning the types of DRD's to be issued to Sherburne County emergency workers who are assigned duties inside the 10-mile Emergency Planning Zone (EPZ) are inconsistent and lead to the issuing of inappropriate dosimetry during the July 23, 2013, MNGP REP Exercise. This Plan Issue remains open.

The Plan Issue, 39-13-3a1-P-05 for the County of Wright was identified under Criterion 3.a.1, Implementation of Emergency Worker Exposure Control. Written and audio/visual plans, guides and instructions concerning the types of DRD's to be issued to Wright County emergency workers who are assigned duties inside the 10-mile EPZ are inconsistent and lead to the issuing of inappropriate dosimetry during the July 23, 2013, MNGP REP Exercise. This Plan Issue remains open.

There were three ARCA's resolved by the State of Minnesota from the Prairie Island Nuclear

Generating Plant Full Participation Plume Exercise that were previously demonstrated on July 10, 2012.

Based on the results of the July 23, 2013, the MNGP Partial Participation Plume Exposure Pathway Exercise, the offsite radiological emergency response plans and preparedness for the State of Minnesota and affected local jurisdictions, site-specific to the MNGP 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 Minnesota site-specific to the MNGP, granted on January 4, 1981, remain in effect.

APPENDIX A: IMPROVEMENT PLAN

Issue Number: 39-13-3a1-P-03		Criterion: 3a1
<p>ISSUE: Written and audio/visual plans, guides and instructions concerning the types of DRD's to be issued to Sherburne County emergency workers who are assigned duties inside the 10-mile EPZ are inconsistent and lead to the issuing of inappropriate dosimetry during the July 23, 2013, Monticello Nuclear Generating Plant Radiological Emergency Preparedness Exercise.</p> <p>“Green Cards” – titled “Minnesota REP Program Emergency Worker Exposure Briefing and Log” – required emergency workers to report when a DRD reading of 150 mR was reached. However, the 0-20 R DRDs issued by County radiological staff could not be used to reliably measure an exposure of 150 mR (i.e., 0.15 R). The “Green Card” and Minnesota Public Safety Homeland Security Emergency Management training video titled “EW Briefing” provided instructions regarding the number and range of DRD's to be issued in concert with the County RO Standard Operating Guide. The County plan was inconsistent with the Standard Operating Guideline used by the County RO, whereby the “Green Card” explicitly identified both DRD's to be provided to the emergency worker while the SOG specified only high-range (0-20 R) DRD's.</p>		
<p>RECOMMENDATION: Reconcile plans, Standard Operating Guidelines and other written and audio/video instructions (e.g., “Green Cards” and the Minnesota Homeland Security and Emergency Management “Emergency Worker Briefing”) that are given to emergency workers to provide appropriate, clear, and consistent instructions regarding the number and range of DRD's to be issued to emergency workers while they are either in or outside of the 10-mile EPZ and the reporting requirements associated with each type of DRD.</p>		
<p>SCHEDULE OF CORRECTIVE ACTION: Sherburne County will issue a 0-200 mR dosimeter and a 0-20 R dosimeter to any Emergency Worker that enters the 10-mile Emergency Planning Zone.</p>		
<p>CORRECTIVE ACTION DESCRIPTION: Sherburne County will issue a 0-200 mR dosimeter and a 0-20 R dosimeter to any Emergency Worker that enters the 10-mile Emergency Planning Zone.</p>		
<p>CAPABILITY: Responder Safety and Health</p>		<p>PRIMARY RESPONSIBLE AGENCY: Sherburne County Emergency Operations Center</p>
<p>CAPABILITY ELEMENT: Planning</p>		<p>START DATE: 2013-07-24</p>
<p>AGENCY POC: Kyle Breffle 763-765-3531</p>		<p>ESTIMATED COMPLETION DATE: 2013-12-01</p>

Issue Number: 39-13-1e1-P-06		Criterion: 1e1
<p>ISSUE: The current RAD FMT Standard Operating Guidelines (REP-1), rev 27, 4/12/2013, pages 7 through 9, describes Dosimetry issued to FMT's as consisting of one Thermoluminescent Dosimeter (TLD) and one Canberra UltraRadic Electronic Personal Dosimeter (EPD). Attachment 5 – Sample Kit Inventory (dated Rev 25, 5/2009), page 44, however, describes Dosimetry equipment as including three dosimeter packs, each consisting of one TLD, one 0-200 mR Direct-Reading Dosimeter (DRD), one 0-20 R DRD, and one DRD charger.</p> <p>Page 9 states that FMT personnel are to contact the Command Van if the EPD indicates 500 mR (half of the turn-back limit). The RAD Team Captain Guidelines (REP-2), revision 15, 6/7/2010, page 9, however, states that FMT personnel are to report dosimeter readings when the 0-200 mR DRD reaches ¾ scale (150 mR).</p>		
<p>RECOMMENDATION: Update both procedures to reflect current equipment inventory and reporting values.</p>		
<p>SCHEDULE OF CORRECTIVE ACTION: The State of Minnesota is updating the Radiological Accident Deployment Field Team Standard Operating Guidelines to ensure that the proper equipment is identified throughout the document.</p>		
<p>CORRECTIVE ACTION DESCRIPTION: The State of Minnesota is updating the Radiological Accident Deployment Field Team Standard Operating Guidelines to ensure that the proper equipment is identified throughout the document.</p>		
<p>CAPABILITY: Responder Safety and Health</p>		<p>PRIMARY RESPONSIBLE AGENCY: Minnesota Homeland Security and Emergency Management</p>
<p>CAPABILITY ELEMENT: Planning</p>		<p>START DATE: 2013-07-24</p>
<p>AGENCY POC: Patrick McLaughlin 651-201-7434</p>		<p>ESTIMATED COMPLETION DATE: 2013-12-01</p>

Issue Number: 39-13-3a1-P-05		Criterion: 3a1
<p>ISSUE: Wright County Emergency Response Plan, Annex H: Radiological Exposure Control and associated Standard Operating Procedures and checklists are not consistent with the Minnesota Radiological Emergency Preparedness Program Emergency Worker Exposure Briefing and Log or Radiological Emergency Preparedness Emergency Worker Handbook which are included in the Emergency Worker Dosimetry Kits. The Wright County Emergency Response Plan, Standard Operating Procedures, and checklists do not clearly specify what dosimetry is required for specific Emergency Worker assignments.</p>		
<p>RECOMMENDATION: Revise the Wright County Emergency Response Plan, Standard Operating Procedures and checklists to be consistent with the instructions (Green Card) included with the Emergency Worker Dosimetry Kits. Additionally, detailed instructions regarding the assembly of Emergency Worker Dosimetry Kits should be revised to align with the contents specified by the revised plans, Standard Operating Procedures, and supporting documentation.</p>		
<p>SCHEDULE OF CORRECTIVE ACTION: Wright County will issue a 0-200 mR dosimeter and a 0-20 R dosimeter to any Emergency Worker that enters the 10-mile Emergency Planning Zone.</p>		
<p>CORRECTIVE ACTION DESCRIPTION: Wright County will issue a 0-200 mR dosimeter and a 0-20 R dosimeter to any Emergency Worker that enters the 10-mile Emergency Planning Zone.</p>		
<p>CAPABILITY: Responder Safety and Health</p>		<p>PRIMARY RESPONSIBLE AGENCY: Wright County Emergency Operations Center</p>
<p>CAPABILITY ELEMENT: Planning</p>		<p>START DATE: 2013-07-24</p>
<p>AGENCY POC: Genell Reese 763-682-7326</p>		<p>ESTIMATED COMPLETION DATE: 2013-12-01</p>

APPENDIX B: EXERCISE TIMELINE

Table 1, on the following page, presents the times at which key events and activities occurred during the Monticello Nuclear Generating Plant Radiological Emergency Preparedness Partial Participation Plume Exposure Pathway exercise conducted on July 23, 2013. Also included are times notifications were made to the participating jurisdictions/functional entities.

Table 1 - Exercise Timeline
DATE: 2013-07-23, SITE: Monticello Nuclear Generating Plant, MN

Emergency Classification Level or Event	Time Utility Declared	State of Minnesota	Planning Assessment Center	Joint Operations Center	Sherburne County	Wright County
Unusual Event	N/A	N/A	N/A	N/A	N/A	N/A
Alert	0816	0834	0842	0850	0832	0844
Site Area Emergency	0940	0956	0956	1006	1015	0954
General Emergency	1120	1134	1134	1139	1151	1131
Simulated Rad. Release Started	0940	0956	0956	1006	1015	1005
Simulated Rad. Release Terminated	N/A	N/A	N/A	N/A	N/A	N/A
Facility Declared Operational		0908	0908	0859	0852	0910
Declaration of State of Emergency		0925	N/A	N/A	0938	1005
Exercise Terminated		1243	1243	1243	1245	1245
General Information Message		0857	N/A	0857	N/A	N/A
Early Precautionary Action: Livestock Advisory		1007	N/A	N/A	N/A	N/A
Early Precautionary Action: Evacuate Schools and/or Special Populations		1007	N/A	1007	1018	1020
KI Administration Emergency Workers		1011	1007	N/A	1011	1015
Early Precautionary Action: Evacuate State parks and hunting areas		1020	1102	N/A	N/A	N/A
Early Precautionary Action: Air, Rail and Water Restriction		1029	N/A	1032	N/A	N/A
Protective Action Recommendation: Evacuation of Sub-Areas 2, 5E, 5N		1136	1136	N/A	1140	1140
Protective Action Decision: Evacuate Sub-Areas 2, 5E and 5N		1144	1144	N/A	1144	1144
KI Administration: General Population Sub-Areas 2, 5E, 5N		1144	1144	N/A	1144	1144
Siren Activation		N/A	N/A	N/A	1154	1154
EAS		1157	N/A	N/A	N/A	N/A

APPENDIX C: EXERCISE EVALUATORS AND TEAM LEADERS

The following is a list of the personnel that evaluated the MNGP REP Partial Participation Plume Exposure Pathway Exercise on July 23, 2013. 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

ICFI - ICF International Consulting

Title	Name	Organization
Radiological Assistance Committee, Chairman	William E. King	DHS/FEMA
Exercise Director	Gary Naskrent	DHS/FEMA
Alternate Exercise Director	Stephen Tulley	DHS/FEMA
Minnesota Site Specialist/Exercise Coordination	Edward Golinski	DHS/FEMA
Team Leader - Minnesota	Todd Gemske	DHS/FEMA
Team Leader – Sherburne County	Carl Bebrich	DHS/FEMA
Team Leader - Wright County	Karl Rabenhorst	DHS/FEMA
Regional Coordinator	John Wills	ICFI

DATE: 2013-07-23, SITE: Monticello Nuclear Generating Plant, MN

LOCATION	EVALUATOR	AGENCY
State of Minnesota - Bureau of Criminal Apprehension - Initial Warning Point	Delwyn Kinsley	FEMA RV
State of Minnesota - Emergency Operations Center	Gary Bolender Edward Diaz	ICFI FEMA RV
State of Minnesota - Emergency Operations Center - Planning and Assessment Center	Jill Leatherman John Wills	ICFI ICFI
State of Minnesota - Emergency Operations Center - Joint Information Center	Debra Schneck	ICFI
State of Minnesota - Emergency Operations Center - Public Inquiry Hotline Center	Delwyn Kinsley	FEMA RV
State of Minnesota - Sherburne County Emergency Operations Center - Regional Program Coordinator	Carl Bebrich	FEMA RV
State of Minnesota - Wright County Emergency Operations Center - Regional Program Coordinator	Karl Rabenhorst	FEMA RV
State of Minnesota - Radiological Accident Deployment Team #1	Jill Leatherman John Wills	ICFI ICFI
State of Minnesota - Sherburne County Emergency Operations Center - Minnesota State Police - Traffic and Access Control Point	Christopher Bellone	FEMA RV
Sherburne County - Initial Warning Point	Kara Scott	FEMA RV
Sherburne County - Emergency Operations Center	Jesse King Kara Scott Robert Swartz	FEMA REPP FEMA RV FEMA RI
Sherburne County - Emergency Operations Center - Traffic and Access Control Point	Kara Scott	FEMA RV
Sherburne County - State Emergency Operations Center/Joint Information Center - Public Information Officer	Debra Schneck	ICFI
Sherburne County - Big Lake School District - Evacuation School	Christopher Bellone	FEMA RV
Wright County - Initial Warning Point	Don Carlton	FEMA RI
Wright County - Emergency Operations Center	Don Carlton Clinton Crackel Mark Ludeking	FEMA RI FEMA RV FEMA RV
Wright County - Emergency Operations Center - Traffic and Access Control Point	Clinton Crackel	FEMA RV
Wright County - State Emergency Operations Center/Joint Information Center - Public Information Officer	Debra Schneck	ICFI
Wright County - St. Michael - Albertville District - Evacuation School	Delwyn Kinsley	FEMA RV
Wright County - Buffalo School District - Evacuation School	Debra Schneck	ICFI
* Team Leader		

APPENDIX D: ACRONYMS AND ABBREVIATIONS

Acronym	Meaning
ARCA	Areas Requiring Corrective Action
BHM	Buffalo Hanover Montrose
DCF	Dose Correction Factor
DHS	Department of Homeland Security
EAS	Emergency Alert System
ECL	Emergency Classification Level
EMSRB	Emergency Medical Services Regulatory Board
EOC	Emergency Operations Center
EOF	Emergency Operations Facility
EPD	Electronic Personal Dosimeter
EPZ	Emergency Planning Zone
ERDS	Emergency Response Data System
ERP	Emergency Response Plan
ESD	Emergency Services Director
EW	Emergency Worker
FEMA	Federal Emergency Management Agency
GAR	Governors Authorized Representative
GE	General Emergency
HSEM	Homeland Security Emergency Management
IPZ	Ingestion Pathway Zone
ISD	Independent School District
IT	Information Technology
IWP	Initial Warning Point
JIC	Joint Information Center
MDO	Minnesota Duty Officer
MNGP	Monticello Nuclear Generating Plant
MRD	Monticello REP Director
MSP	Minnesota State Patrol
NRC	Nuclear Regulatory Commission
OC	Operations Chief
PAC	Planning Assessment Center
PAD	Protective Action Decision
PAR	Protective Action Recommendation
PIB	Public Information Brochure

PINGP	Prairie Island Nuclear Generating Plant
PIO	Public Information Officer
RAC	Regional Assistance Committee
RAD	Radiological Accident Deployment
REP	Radiological Emergency Preparedness
RMS	Records Management System
RO	Radiological Officer
SAE	Site Area Emergency
SCGC	Sherburne County Government Center
SEOC	State Emergency Operations Center
SIM	State Incident Manager
SOG	Standard Operating Guide
SOP	Standard Operating Procedure
TEDE	Total Effective Dose Equivalent
TSC	Technical Support Center
WCDC	Wright County Dispatch Center
WCHS	Wright County Human Services
WCND	Wright County Nuclear Director
WCSD	Wright County Sheriff's Department

APPENDIX E: EXERCISE PLAN

This appendix lists the exercise criteria, which were scheduled for demonstration in the Monticello Nuclear Generating Plant Radiological Emergency Preparedness Partial Participation Plume Exposure Pathway Exercise on July 23, 2013, and the offsite extent-of-play agreement accepted by the Department of Homeland Security/Federal Emergency Management Agency (DHS/FEMA) Region V on May 23, 2013. The exercise criteria, published in the DHS/FEMA Radiological Emergency Preparedness Manual, dated April 2012 represent a functional translation of the planning standards and evaluation criteria of NUREG-0654/FEMA-REP-1, Rev1, "Criteria for the Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," November 1980. Since the exercise criteria are intended for use at all nuclear power plant sites, and due to variations among offsite plans and procedures, an extent-of-play agreement is prepared by the State and accepted by the DHS/FEMA to provide evaluators with guidance on expected actual demonstration of the criteria.

Exercise Criteria

Listed on the following pages are the specific radiological emergency preparedness criteria that were scheduled for demonstration during this exercise.

2013 Monticello Nuclear Generating Plant Plume Phase Exercise Extent of Play Agreement State of Minnesota/Wright County and Sherburne County

The Monticello Nuclear Generating Plant Exercise will take place the week of July 22 2013. The exercise week will involve out-of-sequence and in-sequence demonstrations. The EV-2 out of sequence exercise demonstration will be on July 22, 2013. The State of Minnesota, Sherburne County, and Wright County are the other offsite response organizations (ORO's). The Plume Phase exercise demonstration will be on July 23, 2013.

An additional evaluation will be held for other off-site response organizations in August 2013. A separate Extent of Play will be written and provided for the Wabasha St. Elizabeth's Hospital (MS-1), Wabasha Community Ambulance Service (MS-1), Cannon Falls Fire Department (EWD) and the Wabasha Reception Center demonstrations. MS-1 and the Emergency Worker Monitoring & Decontamination exercise demonstration will be on August 13, 2013. Wabasha Reception Center exercise demonstration will be on August 15, 2013.

Criteria that can be re-demonstrated immediately for credit, at the discretion of the evaluator, include the following: 3.a.1, 3.d.1, 3.d.2, 4.a.3, 4.b.1, 6.a.1, 6.b.1, 6.c.1 and 6.d.1. Criteria that may be re-demonstrated, as approved on a case-by-case basis by the Chairperson of the Regional Assistance Committee, include the following: 2.a.1, 2.b.1, 2.b.2, 5.a.1 and 5.b.1. It is the desire of the State of Minnesota to re-demonstrate (as needed) any areas of concern during the week of the exercise as possible.

Overview of Exercise Schedule and Sites

Monday July 22 nd		
Pre-Exercise Briefing Entrance Meeting	2:00 pm	Best Western Chelsea Inn & Suites 89 Chelsea Rd Monticello, MN 55362-hotel
EV-2 Evaluations		
Buffalo Area School District #877 – Wright County	10:30 am – 12:30 pm	District Office 214 N.E. 1st Ave Buffalo, MN 55313
St. Michael-Albertville – Wright County	10:00 am – 12:00 pm	District office – West side of High School 11343 50 th St. NE Albertville, MN 55301
Big Lake – Sherburne County	8:00-10:00 am 52	Big Lake High School 501 Minnesota Ave Big Lake, MN 55309

Tuesday July 23rd		
Partial scale Plume Phase Exercise		
Evaluator Briefing	7:00 am	State Emergency Operations Center 445 Minnesota Street, Suite 223 St. Paul MN 55101
State Duty Officer	-	Bureau of Criminal Apprehension 1430 Maryland Ave E St Paul, MN 55106
State EOC & PAC	-	Town Square 445 Minnesota Street, Suite 223 St. Paul MN 55101
JIC	-	Town Square 445 Minnesota Street, Suite 223 St. Paul MN 55101
Media Briefing Room	-	Town Square 445 Minnesota St Suite 100 St. Paul MN 55101
Wright County EOC	-	Wright County Gov't Center 10 2nd St NW Buffalo, MN 55313
Sherburne County EOC	-	Sherburne County Gov't Center 13880 Business Center Drive Elk River, MN 55330
Wright County Dispatch Center and Jail	-	Wright County Dispatch and Jail 3800 Braddock Av NE Buffalo MN 55313

Wednesday July 24th		
State Field Teams – re-demonstration	9:00 AM	Maple Grove Fire Station #2 13450 Maple Knoll Way Maple Grove, MN 55369

Friday July 26th		
FEMA players debriefing	9:00 am	Wright County Gov't Center 10 2nd St NW Buffalo, MN 55313
FEMA media out briefing	10:00 am	Wright County Gov't Center 10 2nd St NW Buffalo, MN 55313
<i>NOTE: The State of MN will provide the notification to the media for the FEMA out brief</i>		

Additional Exercise Notes

- Minnesota is NOT a Homerule State – decision-making for radiological events rests with the State not the Counties.
- The call to Target to stop KI distribution at the Alert ECL will be simulated.
- The initial notification to FRMAC at the Alert ECL and subsequent updates will be simulated.
- The call to the Northstar Rail at the Site Area Emergency ECL will be simulated.
- The Governor's Office is not directly participating in the exercise and phone calls, faxing and e-mailing of emergency executive orders to the Governor and the Secretary of State will be simulated.
- Send Word Now will be used in the notification but will not be evaluated.
- Sherburne and Wright County PIOs will be pre-positioned near the SEOC but will not engage before they are notified and will wait an appropriate length of time before beginning play.
- National Guard Liaisons for Sherburne and Wright County may participate; if playing they will be prepositioned near the respective County EOC but will wait an appropriate length of time before beginning play once notified. This will not be evaluated.
- Public information dissemination will use social media but that aspect will not be evaluated.
- Media briefings and news conferences will be live streamed into the SEOC but the streaming will not be evaluated.
- New green cards will be available as part of the briefing packet for emergency workers to obtain their briefing and may read and sign to substitute for a spoken Briefing.
- State RAD Field Teams may participate in this exercise but will not be evaluated.
- State RAD Field Teams will re-demonstrate the areas with outstanding ARCAs out-of-sequence on Wednesday July 24th morning at the Maple Grove Fire Station #2 13450 Maple Knoll Way in Maple Grove, MN 55369 at 9:00 AM.
- Hospital, Ambulance and Cannon Falls EWD will exercise August 13, 2013.
- Wabasha Reception Center will exercise August 15, 2013.
- FEMA has indicated that there will be six individuals from FEMA participating within the exercise.

PREVIOUS EXERCISE FINDINGS AND PLANNING ISSUES

State of Minnesota – Area Requiring Corrective Action (ARCA)

North Memorial Medical Center in Robbinsdale received 2 Areas Requiring Corrective Action from the August 2009 Monticello Exercise. The first one (39-09-1e1-A) involved the Landauer TLD cards which did not have an exchange date specified and there was no reference available to determine when the TLDs needed to be exchanged. The other ARCA (39-09-6d1-A), Model 3 survey meters were response checked to ensure they responded to a radioactive check source, but were not checked using a specified range of reading for a particular source. There is an outstanding ARCA.

The State of Minnesota Field Teams received 3 Areas Requiring Corrective Action from the July 2012 Prairie Island Exercise. The first one (50-12-1e1-A-10) involved the Ludlum 2241 radiation instrument with the 44-6 detector attached was only operationally checked on setting #1 for activity and did not include setting #4 for exposure rate; RAD Field Team SOG did not indicate that the 44-6 detector be checked on both settings. The second ARCA (50-12-3a1-A-11) involved RAD Field Teams' SOG to set survey instruments to measure activity and not exposure rate for the turn-back value; teams were not able to know if they reached an area with exposure rate equal to or greater than the turn-back value. The third ARCA (50-12-1e1-A-13) RAD Field Team estimated a sampling time which was not long enough to reach the target sampling volume of 10 cubic feet. These ARCAs will be re-demonstrated in this 2013 exercise.

Wright County

There are no unresolved ARCAs for Wright County.

Sherburne County

There are no unresolved ARCAs for Sherburne County.

EVALUATION AREA 1 – EMERGENCY OPERATIONS MANAGEMENT

SUB-ELEMENT 1.a - Mobilization

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

State of Minnesota

Minnesota State Emergency Operations Center (SEOC)

The Plume Phase Exercise will take place on July 23rd. The SEOC will be activated at the ALERT Emergency Classification Level (ECL). The Minnesota Duty Officer (MDO) at the BCA Communications Center will take the initial call and make notifications by telephone and pagers. Verification of the call is via a fax from the nuclear generating plant which is received before proceeding with the call down. If the FAX is not received, the Minnesota Duty Officer would use the phone numbers on the power plant process sheet to call the power plant in order to verify the call.

The BCA Communications Center (Duty Officer) at the Bureau of Criminal Apprehension 1430 Maryland Avenue East St. Paul, MN 55106 will take the initial call on July 23, 2013 from the Monticello Nuclear Generating Plant. The BCA Communications Center will then demonstrate the call-out of staff and transfer of communications from the call center to the SEOC in a timely manner. Send Word Now will be used to alert and notify the REP contacts but will not be evaluated.

The SEOC is located at 445 Minnesota Street, Suite 223, St. Paul, MN. The State Regional Program Coordinators (RPCs) will act as liaisons to the counties and will be pre-positioned in the area of Wright and Sherburne County EOCs due to long travel time. The RPCs will wait an appropriate amount of time before interacting with other county responders.

Radiological Accident Deployment (RAD) Field Teams

The State RAD Teams will not demonstrate this criterion but may play and not be evaluated.

Joint Information Center (JIC)

The JIC will be activated at the Alert Emergency Classification Level (ECL). Once activated, it will be maintained until the termination of the exercise. The work area for the JIC is located in the SEOC. Both Sherburne and Wright County PIOs will be pre-positioned near the SEOC. They will not engage before they are notified and will wait the appropriate length of time before beginning play.

Sufficient 24-hour staffing capability of key personnel will be presented at the exercise entrance meeting on July 22nd.

Sherburne County

The initial call will be received in the Sheriff's dispatch office of the Sherburne County Law Enforcement Center. The Sherburne County Government Center and the County EOC are located at 13880 Business Center Drive, Elk River, MN.

Initial calls to activate EOC staff will begin in the dispatch office. Sherburne County will fully activate their EOC and a PIO will be pre-positioned near the SEOC and wait until notified to respond to the SEOC during the plume phase exercise.

Sufficient 24-hour staffing capability of key personnel will be presented at the exercise entrance meeting on July 22.

Wright County

The initial call will be received in the Sheriff's dispatch office of the Wright County Dispatch Center located at 3800 Braddock Av NE, Buffalo MN 55313.

Initial calls to activate EOC staff will then begin in the dispatch center. Wright County will fully activate their EOC. A Wright County PIO will be pre-positioned near the SEOC and wait until notified to respond to the SEOC during the plume phase exercise.

Sufficient 24-hour staffing capability of key personnel will be presented at the exercise entrance meeting on July 22nd.

SUB-ELEMENT 1.b - Facilities

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

State of Minnesota, Wright County and Sherburne County,

This criterion has been previously evaluated and is therefore not selected for evaluation in this exercise.

SUB-ELEMENT 1.c - Direction and Control

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 Minnesota

The SEOC State Incident Manager (SIM), the Sherburne County Emergency Services Director and the Wright County Nuclear Director each as the respective county operations chiefs will coordinate decisions and emergency activities.

Sherburne County

The Sherburne County Emergency Services Director as the county operations chief will provide direction and control including coordinating emergency activities within the county. Activities will be coordinated with the State, Wright County EOC, and field staff as necessary.

Wright County

The Wright County Nuclear Director as the county operations chief will coordinate decisions and emergency activities within the county. Activities will be coordinated with the State, Sherburne County EOC, and field staff as necessary.

SUB-ELEMENT 1.d - Communications Equipment

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 Minnesota

The state will demonstrate the primary means of communication between the counties and Monticello Nuclear Generating Plant. The state will also demonstrate one additional (either secondary, tertiary or alternative) means of communication between the State and with Sherburne County and Wright County. Field Team information coming into the Planning and Assessment Center (PAC) will be done by controller injects.

Line of Communication	Primary	Secondary	Tertiary	Alternative
SEOC to County EOC				
Sherburne	Dedicated Private Branch Exchange number (PBX)	Commercial telephone/FAX machine	Public Safety Radio VHF/800 MHz ARMER system	Amateur Radio
Wright	Dedicated Private Branch Exchange number (PBX)	Commercial telephone/FAX machine	Public Safety Radio VHF/800 MHz ARMER system	Satellite telephone
SEOC to Ingestion Counties	Commercial telephone/FAX machine	Public Safety Radio VHF/800 MHz ARMER system	Satellite telephone	
SEOC to Monticello and Prairie Island Nuclear Generating Plants	Auto-Ring (dedicated) Hotline: SEOC to Technical Support Center (TSC) and EOF	Commercial telephone/FAX machine	800 MHz Xcel	
SEOC to Federal Response Organizations (FEMA, NRC, DOE, and Corps of Engineers)	Commercial telephone/FAX machine	National Warning System (NAWAS)	FNARS/ Shares	Amateur Radio
SEOC to Field Monitoring Teams	Commercial telephone/ Cell phone	800 MHz ARMER	Satellite telephone	Amateur Radio
SEOC to Fixed Medical Support Facility (primary and backup hospitals)	Commercial telephone/FAX Machine	Satellite Phone	Public Safety Radio VHF/800 MHz ARMER system	Amateur Radio
SEOC to Mobile Medical Support	Commercial telephone to primary/backup hospital	Public Safety Radio VHF/800 MHz ARMER system	Amateur Radio	

On July 23, 2013 the State of Minnesota will demonstrate the primary means of communication with the risk counties of Sherburne and Wright and with the Monticello Nuclear Generating Plant.

Line of Communication	Primary	Secondary	Tertiary	Alternative
MDO to Risk County EOC/Dispatcher	Commercial telephone/FAX Machine	Public Safety Radio VHF/800 MHz ARMER system	Satellite Phone	
MDO to Monticello Nuclear Generating Plants	Dedicated telephone line	Commercial telephone/FAX Machine	800 MHz Xcel	Cell Phones
MDO to SEOC	Commercial telephone/FAX Machine	Public Safety Radio VHF/800 MHz ARMER system	National Warning System (NAWAS)	Satellite Phone

Sherburne County

The Sherburne County EOC's primary communication link is a Commercial phone line to the Monticello Nuclear Generating Plant verification is through fax or callback to the plant. A Dedicated Private Branch Exchange circuit is the primary communications link between the County EOC and the State Emergency Operations Center (SEOC).

The secondary communications method is a privately owned utility frequency radio to the Monticello Nuclear Generating Plant and a Commercial telephone/FAX line to the SEOC.

The tertiary communication method with the Monticello Nuclear Generating Plant is a public dispatch number on commercial telephone/FAX machine and a Public Safety Radio VHF/800 MHz ARMER system with the SEOC. Sherburne County EOC staff will demonstrate functionality of the primary and one of their back up methods of communication.

Sherburne County will also demonstrate one additional (either secondary, tertiary or alternative) means of communication between the state and the county by receiving the additional communication initiated by the state. Special populations are notified using City Watch which can be used for notification to emergency workers. This may be used but will not be evaluated.

Line of Communication	Primary	Secondary	Tertiary	Alternative
MNGP to Sherburne County EOC/Dispatcher	Commercial phone line specific to MNGP with verification call back to plant or verification by fax	800 MHz Xcel radio	Public dispatch number on Commercial telephone/FAX machine-verification call back to plant	

Wright County

The Wright County EOC's primary communication link is a Commercial phone line to the Monticello Nuclear Generating Plant verification is through fax or callback to the plant. A Dedicated Private Branch Exchange circuit is the primary communications link between the County EOC and the State Emergency Operations Center (SEOC).

The secondary communications method is a privately owned utility frequency radio to the Monticello Nuclear Generating Plant and a Commercial telephone/FAX line to the SEOC.

The tertiary communication method with the Monticello Nuclear Generating Plant is a public dispatch number on commercial telephone/FAX machine and a Public Safety Radio VHF/800 MHz ARMER system with the SEOC. Wright County EOC staff will demonstrate functionality of the primary and one of their back up methods of communication.

Wright County will also demonstrate one additional (either secondary, tertiary or alternative) means of communication between the state and the county by receiving the additional communication initiated by the state. Special populations are notified using City Watch which can be used for notification to emergency workers. This may be used but will not be evaluated.

Line of Communication	Primary	Secondary	Tertiary	Alternative
MNGP to Wright County EOC/Dispatcher	Commercial phone line specific to MNGP with verification call back to plant or verification by fax	800 MHz Xcel radio	Public dispatch number on Commercial telephone/FAX machine-verification call back to plant	

SUB-ELEMENT 1.e - Equipment and Supplies to Support Operations

Criterion 1.e.1: Equipment, maps, displays, dosimetry, KI, and other supplies are sufficient to support emergency operations.

State of Minnesota

Equipment, Maps and Displays:

The state will demonstrate the use of equipment, maps, and displays at the SEOC and JIC as necessary to support emergency operations.

Dosimetry:

Emergency workers will use pocket dosimeters and TLDs and control exposure as follows.

Potassium Iodide (KI):

Packets of KI are a part of the state field team response kits. The shelf life of Minnesota's current supply of KI is approved until July 2015.

Per the State of Minnesota Emergency Operations Plan, emergency workers located outside the 10 mile EPZ such as at the reception center do not take KI, however, emergency workers placing barricades, manning traffic control points or performing route alerting within the Emergency Planning Zone (EPZ) do take KI as directed.

Monitoring Instruments:

All instruments will be operationally checked before use. Instruments have been calibrated in accordance with the manufacturer's recommendations and calibration documentation will be supplied at the FEMA entrance meeting.

Equipment Maintenance:

All routine equipment checks and maintenance is reported in the Annual Letter of Certification. Calibration of radiological detection equipment will be reviewed on July 22 by FEMA. All radiation monitoring equipment will be operationally checked prior to use.

Traffic Control Points

Traffic control equipment is permanently located at the designated Trunk Highway Traffic Control Points (TCP) in the area surrounding the Monticello Nuclear Generating Plant. The equipment is to be used to close access into the 10 mile Emergency Planning Zone (EPZ) in conjunction with State Patrol staffing. The equipment is deployed at the request of the SEOC and coordinated with the county. The Minnesota Department of Transportation will simulate the setting up and movement of barriers. MnDOT personnel will participate by the simulated actions and by interview in a convenient location within the SEOC.

The barricades are deployed as follows:

Truck Station	Location	# of Barricades
Maintenance Area 3B HQ/St. Cloud Sub-Area	3725 12 th Street North St. Cloud, MN 56303	12
Buffalo Truck Station/Lake Sub-Area	1137 Highway 25 SE Buffalo MN 55313	4
Monticello Truck Station/Lake Sub-Area	112 Chelsea Road Monticello, MN 55362	8
Elk River Truck Station/Elk River Sub-Area	18938 Dodge Ave NW Elk River, MN 55330	19

Sherburne County

Equipment, Maps and Displays:

Sherburne County will demonstrate the use of equipment, maps, and displays at the Sherburne County EOC as necessary to support emergency operations.

Dosimetry:

All county emergency workers will be issued dosimeters and TLDs as outlined in their plans.

Potassium Iodide (KI):

KI for emergency workers is stored at the Sherburne County EOC in the Emergency Preparedness Coordinators office/EOC. The shelf life of Minnesota's current supply of KI has been approved until July 2015.

Equipment maintenance:

All routine equipment checks and maintenance are documented in the current PR-1 report, which will be provided at the entrance meeting. Calibration of radiological detection equipment by the field monitoring teams will be reviewed on July 22 by FEMA. All radiation monitoring equipment will be operationally checked prior to use to verify proper functioning within a specified operational range.

Wright County

Equipment, Maps and Displays:

Wright County will demonstrate the use of equipment, maps, and displays at the Wright County EOC as necessary to support emergency operations.

Dosimetry:

All county emergency workers will be issued dosimeters and TLDs as outlined in their plans.

Potassium Iodide (KI):

KI for emergency workers is stored at the County EOC. The shelf life of Minnesota's current supply of KI has been approved until July 2015.

Equipment Maintenance:

All routine equipment checks and maintenance is reported in the Annual Letter of Certification. Calibration of radiological detection equipment will be reviewed on July 22 by FEMA. All radiation monitoring equipment will undergo a response check prior to use to verify that the equipment responds to a radioactive check source.

EVALUATION AREA 2 - PROTECTIVE ACTION DECISION-MAKING

SUB-ELEMENT 2.a – Emergency Worker Exposure Control

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 PAGs.

State of Minnesota

All emergency workers inside the 10-mile EPZ have a radiation exposure limit of 3 R with a turn back limit of 1 R as read on a DRD. The Planning Chief may authorize radiation exposure to emergency workers in excess of the administrative limit in accordance with standard operating guidelines. If not demonstrated as part of the scenario, this can be demonstrated via interview.

When the decision to administer KI to emergency workers in the Emergency Planning Zone (EPZ) is made (or controller data is injected), the Planning Chief will recommend to the State Incident Manager (SIM) and the Operation Chief that field operations staff take KI (simulated). State Patrol personnel receive their kits at county EOCs per procedure.

Note: at a General Emergency, all emergency workers are advised to take potassium iodide (KI).

Sherburne County, Wright County

The Sherburne and Wright County Radiological Officers will instruct county emergency workers to take KI after the recommendation is made by the SEOC Planning and Assessment Center (PAC).

All emergency workers inside the 10-mile EPZ have a radiation exposure limit of 3 R and a turnback limit of 1 R. The County Radiological Officer, after authorization from the Planning Chief in the SEOC, can allow radiation exposures of county emergency workers in excess of the administrative limit. If a dose extension is not demonstrated through the scenario, the County Radiological Officer can discuss with the evaluator their knowledge of the dose extension procedures/guidelines.

SUB-ELEMENT 2.b – Dose Assessment & PARs & PADs for the Emergency Event

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

State of Minnesota

The Planning Chief will evaluate the Monticello Nuclear Generating Plant information and complete independent dose projections based on the information and simulated field-monitoring data provided by a simulated RAD Field Team Captain. The Planning Chief will make an evaluation of the data and recommend a PAR. Once there is concurrence between the Operations Chief at the SEOC and the county Operations Chiefs, the SIM will approve the PAR and give it to the Governor or Governor's Authorized Representative for signing and approval. The RAD Field Team will be simulated for this exercise and field data will be included via inject.

Sherburne County, Wright County

The counties will not demonstrate this criterion.

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

State of Minnesota

The Governor's Authorized Representative (GAR) will demonstrate the ability to make appropriate protective action decisions based on a recommendation from the State Incident Manager and the Planning Chief. Decision-making for incidents at the Monticello Nuclear Generating Plant is the responsibility of the Governor or GAR as outlined in state statute.

KI is pre-distributed on a voluntary basis to members of the general public living in the Monticello Nuclear Generating Plant 10-mile EPZ. A standing order from the Minnesota Department of Health authorizes the secondary protective action of taking KI when directed to evacuate or shelter-in-place in the affected areas at the General Emergency ECL. KI is not distributed post incident and is not available at reception centers. The call to Target at the ALERT ECL to stop KI distribution will be simulated.

Sherburne County, Wright County

Sherburne and Wright counties participate in the protective action decision process in accordance with the state's PAR process. This includes concurrence and coordination between the SEOC and Sherburne and Wright counties.

***Note:** Minnesota is not a home-rule state.*

SUB-ELEMENT 2.c – PADs for the Protection of persons with disabilities and access/functional needs

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

State of Minnesota

It is the responsibility of the counties to make protective actions for special populations; the state of Minnesota is responsible for identifying facilities and providing resources to be made available for the special population groups. Resources that are available can be discussed with the evaluator.

Sherburne County, Wright County

Staff at the Sherburne County and Wright County EOCs will demonstrate this criterion according to their guidelines. Counties are responsible for initiating the notification for evacuation, and identifying needed transportation for special population groups. Resources that are available will be discussed with the evaluator.

SUB-ELEMENT 2.d – Radiological Assessment and Decision-Making for the Ingestion Exposure Pathway

Criterion 2.d.1: Radiological consequences for the ingestion pathway are assessed and appropriate PADs are made based on the ORO planning criteria.

State of Minnesota

This criterion is not selected for evaluation.

Sherburne County

This criterion is not selected for evaluation.

Wright County

This criterion is not selected for evaluation.

Ingestion Counties

This criterion is not selected for evaluation.

SUB-ELEMENT 2.e – Radiological Assessment & Decision-making Concerning Post-Plume Phase Relocation, Re-entry, and Return

Criterion 2.e.1: Timely post-plume phase relocation, re-entry, and return decisions are made and coordinated as appropriate, based on assessments of radiological conditions and criteria in the ORO's plan and/or procedures.

State of Minnesota

This criterion is not selected for evaluation.

Sherburne County

This criterion is not selected for evaluation.

Wright County

This criterion is not selected for evaluation.

Ingestion Counties

This criterion is not selected for evaluation.

EVALUATION AREA 3 - PROTECTIVE ACTION IMPLEMENTATION

SUB-ELEMENT 3.a – Implementation of Emergency Worker Exposure Control

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

State of Minnesota

All emergency workers that are issued dosimetry will demonstrate appropriate use of that dosimetry and record keeping in accordance with their established procedures/guidelines. The emergency workers will demonstrate their knowledge of the turn-back exposure rate and administrative limits. If exercise play does not require emergency workers to seek authorizations for additional exposure, evaluators may interview workers to determine their knowledge of whom to contact in case authorization is needed, and at what exposure levels.

Workers may use any available resources (e.g., written procedures and/or coworkers) in providing responses. Participants may be observed or interviewed by the evaluator in these areas.

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

Sherburne County

All emergency workers that are issued dosimetry will demonstrate appropriate use of the dosimeter, turn back limits and record keeping in accordance with their established procedures/guidelines. Sherburne County will demonstrate the capability to accomplish distribution of KI to emergency workers consistent with decisions made. Emergency workers will demonstrate basic knowledge of procedures for using KI whether or not the scenario drives the implementation of KI use. This can be accomplished by an interview with the evaluator.

As driven by the scenario, field personnel (i.e. Sheriff's Deputies), will be called in to the EOC (all will be simulated except for 1 Deputy) to pick up KI and dosimetry, receive a briefing and their emergency assignment.

Wright County

All emergency workers that are issued dosimetry will demonstrate appropriate use of the dosimeter, turn back limits and record keeping in accordance with their established procedures/guidelines. Wright County will demonstrate the capability to accomplish distribution of KI to emergency workers consistent with decisions made. Emergency workers will demonstrate basic knowledge of procedures for using KI whether or not the scenario drives the implementation of KI use. This can be accomplished by an interview with the evaluator.

As driven by the scenario, field personnel (i.e. Sheriff's Deputies), will be called in to the EOC (all will be simulated except for 1 Deputy) to pick up KI and dosimetry, receive a briefing and their emergency assignment.

Workers at the Wright County Dispatch Center will be notified by the Wright County RADEF officer and issued dosimetry and KI at the General Emergency ECL if and only if the 10S subarea is affected during a General Emergency ECL. The actual taking of KI will be simulated.

SUB-ELEMENT 3.b – Implementation of KI Decision for Institutionalized Individuals and the Public

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

State of Minnesota

Minnesota has made KI available to institutionalized individuals and it has been predistributed to the general public on a voluntary basis through designated Target[®] stores. Distribution of KI is stopped at the Alert ECL. For evaluation purposes, the actual ingestion of KI will not be performed. Minnesota has disseminated instructions on using KI for those advised to take it.

Sherburne County

Sherburne County will demonstrate the capability to accomplish distribution of KI consistent with decisions made as needed. They will demonstrate the ability to develop and maintain lists of institutionalized individuals who have ingested KI, including documentation of the date(s) and time(s) they were instructed to ingest KI. For evaluation purposes, the actual ingestion of KI will not be performed. OROs must demonstrate the capability to formulate and disseminate instructions on using KI for those advised to take it. The actual taking of KI will be simulated.

Wright County

Wright County will demonstrate the capability to accomplish distribution of KI consistent with decisions made as needed. They will demonstrate the ability to develop and maintain lists of institutionalized individuals who have ingested KI, including documentation of the date(s) and time(s) they were instructed to ingest KI. For evaluation purposes, the actual ingestion of KI will not be performed. OROs must demonstrate the capability to formulate and disseminate instructions on using KI for those advised to take it.

Workers at the Wright County Dispatch Center will be notified by the Wright County RADEF officer and issued KI at the General Emergency ECL if and only if the 10S subarea is affected during a General Emergency ECL for institutionalized individuals. The actual taking of KI will be simulated. Actual emergency workers protective actions are covered in 3.a.1 for dosimetry and KI.

SUB-ELEMENT 3.c – Implementation of Protective Actions for persons with disabilities and access/functional needs

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

State of Minnesota

This is a county responsibility and will not be demonstrated by the state.

Sherburne County

Sherburne County will demonstrate this criterion by an interview process with EOC staff. It is the intent of Sherburne County to simulate the evacuation of all persons with disabilities and access/functional needs at the Site Area Emergency ECL. All calls will be simulated and contacts logged. At least one transportation provider will be contacted.

Wright County

Wright County will demonstrate this criterion by an interview process with EOC staff. It is the intent of Wright County to simulate the evacuation of all persons with disabilities and access/functional needs at the Site Area Emergency ECL. All calls will be simulated and contacts logged. At least one transportation provider will be contacted.

The Wright County Dispatch Center located at 3800 Braddock Av NE, Buffalo MN 55313 intends to shelter-in-place at a General Emergency and will evacuate if advised by the county EOC.

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

State of Minnesota

Evacuation

Evacuation of schools is a pre-determined protective action for all schools in the EPZ and is initiated at a Site Area Emergency ECL. This action is a county and school district responsibility and will not be demonstrated by the state during the exercise. Information about reporting back the status of school evacuation may be observed at the SEOC. It is also the responsibility of the State to notify schools outside the EPZ that have children which live within the EPZ to not send students home. This notification will be simulated at the SEOC during the Site Area Emergency ECL.

Sherburne County

Evacuation

Evacuation will be simulated. Notifications to the schools by the county EOC will begin at the Alert ECL.

EV-2

The Big Lake School District EV-2 is scheduled for Monday July 22nd from 8:00 AM – 10:00 AM at Big Lake High School, 501 Minnesota Ave, Big Lake, MN 55309. Big Lake's agreement is with Princeton School District. Evaluation will be

through interview of the necessary school and transportation officials that should include but not limited to: the superintendent, one principal, one teacher, one nurse, one transportation provider, one bus driver and host school superintendent/or principal.

Preschools and daycares are notified by county human services agencies at the Alert ECL and are treated as the general population at the General Emergency ECL.

Wright County

Evacuation

Evacuation will be simulated. Notifications to the schools by the county EOC will begin at the Alert ECL.

EV-2

Buffalo and St. Michael-Albertville School Districts will demonstrate this based on their plans and procedures:

Buffalo EV-2 is scheduled for Monday July 22nd from 10:30 AM – 12:30 PM located at the District Office 214 N.E. 1st Ave Buffalo, MN 55313. Buffalo's agreement is with the Rockford School District. Evaluation will be through interview of the necessary school and transportation officials that should include but not limited to: the superintendent, one principal, one nurse, one transportation provider and a host school representative.

Preschools and daycares are notified by county human services agencies at the Alert ECL and are treated as the general population at the General Emergency ECL.

The St. Michael - Albertville School District EV-2 is scheduled for Monday July 22nd from 10:00 AM – 12:00 PM at their District Office located at 11343 50th St. NE, Albertville, MN 55301. St. Michael-Albertville's plan is to evacuate the elementary school located within the EPZ to their middle school located outside of the EPZ. Evaluation will be through an interview of the necessary school and transportation officials that should include but not limited to: the superintendent, one principal, one teacher, one nurse, one transportation provider, one bus driver and host school superintendent/or principal.

SUB-ELEMENT 3.d – Implementation of Traffic and Access Control

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

State of Minnesota

According to procedures the SEOC will notify by simulation air, rail (including Northstar rail), and waterway transportation at the Site Area Emergency ECL.

This will be demonstrated through simulated calls at the SEOC during the exercise.

MNDOT and the Minnesota State Patrol from the state EOC will assist with identification of traffic and access control points necessary to implement recommended protective actions.

The State Highway Patrol will demonstrate traffic control as coordinated through the Sherburne County EOC and Wright County EOC. State Patrol and MnDOT personnel other than those in the SEOC will receive and pick up their dosimetry and briefing packets from the Wright County and Sherburne County EOCs. MnDOT personnel will participate by simulating the movement of barriers and by interview in a convenient location within the SEOC. The evaluator will meet the responding State Patrol Officer and MnDOT personnel at the EOC. No barricades will actually be placed on the roadside.

Sherburne County

The Sherburne County EOC staff will select, establish, and coordinate staffing of traffic and access control points consistent with the protective action decisions for evacuation areas. This criterion will be demonstrated by simulation and staff interview.

A deputy and/or public works employee will simulate proceeding to a conveniently located, pre-determined roadblock location. No barricade will actually be placed on the roadside. An evaluator will conduct a procedural interview outside of the EOC in the parking lot.

Wright County

The Wright County EOC staff will select, establish, and coordinate staffing of traffic and access control points consistent with the protective action decisions for evacuation areas. This criterion will be demonstrated by simulation and staff interview.

A deputy and/or public works employee will simulate proceeding to a conveniently located, pre-determined roadblock location. No barricade will actually be placed on the roadside. An evaluator will conduct a procedural interview outside of the EOC in the parking lot.

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

State of Minnesota

The State is responsible for state highways and in conjunction with the risk counties the waterways within the EPZ used for route evacuations and for manning traffic control points on these state highways and waterways. The state will demonstrate the necessary actions to reroute traffic on state highways or

waterways as dictated by the scenario. A controller inject will be used to simulate a traffic impediment on one of the evacuation routes. Actual deployment of assets will be simulated, but all actual or simulated contacts made should be logged.

Sherburne County, Wright County

A controller message(s) will be used to create a simulated evacuation impediment. Each county will demonstrate appropriate corrective actions. Actual deployment of assets will be simulated, but all actual or simulated contacts made should be logged.

SUB-ELEMENT 3.e – Implementation of Ingestion Pathway Decisions

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.

State of Minnesota

This criterion was not selected for this exercise.

Sherburne County

This criterion was not selected for this exercise.

Wright County

This criterion was not selected for this exercise.

Ingestion Counties

This criterion was not selected for this exercise.

Criterion 3.e.2: Appropriate measures, strategies, and pre-printed instructional material are developed for implementing PADs for contaminated water, food products, milk, and agricultural production.

State of Minnesota

This criterion was not selected for this exercise.

Sherburne County

This criterion was not selected for this exercise.

Wright County

This criterion was not selected for this exercise.

Ingestion Counties

This criterion was not selected for this exercise.

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

Criterion 3.f.1: Decisions regarding controlled re-entry of emergency workers and relocation and return of the public during the post emergency phase are coordinated with appropriate organizations and implemented.

State of Minnesota

This criterion was not selected for this exercise.

Sherburne County

This criterion was not selected for this exercise.

Wright County

This criterion was not selected for this exercise.

Ingestion Counties

This criterion was not selected for this exercise.

EVALUATION AREA 4 - FIELD MEASUREMENT AND ANALYSIS

SUB-ELEMENT 4.a – Plume Phase Field Measurement and Analyses

Criterion 4.a.1: [RESERVED]

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

State of Minnesota

This criterion was not selected for this exercise.

Sherburne County, Wright County

This is a state function and will not be demonstrated by the counties.

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 Minnesota

This criterion was not selected for this exercise.

Sherburne County, Wright County

This is a state function and will not be demonstrated by the counties.

SUB-ELEMENT 4.b – Post Plume Phase Field Measurements and Sampling

Criterion 4.b.1: The field teams (two or more) demonstrate the capability to make appropriate measurements and to collect samples (e.g., food crops, milk, water, vegetation, and soil) to support adequate assessments and protective action decision-making.

State of Minnesota

This criterion was not selected for this exercise.

Sherburne County, Wright County

This is a state function and will not be demonstrated by the counties.

SUB-ELEMENT 4.c – Laboratory Operations

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

State of Minnesota

This criterion was not selected for this exercise.

Sherburne County, Wright County

This is a state function and will not be demonstrated by the counties.

EVALUATION AREA 5 – EMERGENCY NOTIFICATION AND PUBLIC INFORMATION

SUB-ELEMENT AREA 5.a – Activation of the Prompt Alert and Notification System

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

State of Minnesota

The development and dissemination of an Emergency Alert System (EAS) message will be demonstrated in the SEOC. The EAS is activated only when there is a protective action (i.e., evacuation or sheltering) for people. The State EAS Plan states that the code for a nuclear generating plant incident is monitored by all relay stations and is set to automatically transmit the message from the State EOC.

The following is a summary of the PAD and EAS process:

1. The Planning and Assessment Center (PAC) receives a recommendation from the utility.
2. The PAC makes an independent assessment of the data and develops its recommendation.
3. The EAS Message and corresponding Special News Bulletins are selected by the Planning Chief and communicated to the Operations Chief.
4. The Operations Chief gets concurrence on the Protective Action Recommendation (PAR) from the risk counties.
5. The PAR is communicated to the Minnesota State Incident Manager (SIM)
6. The PAR is communicated to the Governor's Authorized Representative (GAR) where once approved, it becomes a Protective Action Decision (PAD).
7. The time that the sirens are sounded and the time the EAS is activated is determined by the SIM after the PAD has been approved by the GAR.
8. The approved PAD goes to the Operations Chief to coordinate these times with Wright and Sherburne counties via a conference call – the EAS message is the State's responsibility.
9. The sirens are sounded (simulated).
10. The EAS message is transmitted (simulated).
11. Special News Bulletins are sent out.
12. Media Briefings occur.

NOTE: The first PAR is pre-approved and does not require the Governor's approval, only the State Incident Manager's (SIM's) approval. All subsequent PARs require the Governor's or GAR's approval.

An EAS Writer (located in the SEOC) will directly broadcast by radio transmission an EAS message using an encoder/decoder, which is automatically monitored by encoders/decoders by major relay stations. In addition, the EAS Writer has the capability to send a message directly over NOAA weather alert radios utilizing a link to the National Weather Service headquarters in Chanhassen, Minnesota. EAS messages will contain basic information regarding the event. Additional information will be disseminated through the JIC using special news broadcasts and media releases.

Activation of sirens, EAS, weather radios and the broadcast of media messages will be simulated.

The State of Minnesota will be using various social media services (Twitter, Facebook, etc.) to notify the public, but these will not be evaluated.

Sherburne County

All EAS messages are developed and disseminated by the SEOC. After PAR concurrence via a conference call with the other county and the state, sirens are sounded once following each evacuation or sheltering PAR. The coordination of alert and notification implementation will be demonstrated in the Sherburne County EOC (siren activation will be simulated). Special populations are notified using City Watch which can be used for notification to emergency workers. This may be used but will not be evaluated.

Wright County

All EAS messages are developed and disseminated by the SEOC. After PAR concurrence via a conference call with the other county and the state, sirens are sounded once following each evacuation or sheltering PAR. Wright County has the lead for siren activation coordination with Sherburne County. The coordination of alert and notification implementation will be demonstrated in the Wright County Dispatch Center (siren activation will be simulated). Special populations are notified using City Watch, which can be used for notification to emergency workers. This may be used but will not be evaluated.

Criterion 5.a.2: [RESERVED]

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

State of Minnesota

This criterion is the responsibility of the counties and will not be demonstrated by the state.

Sherburne County

Sherburne County has 100% siren coverage; there will not be an inoperable siren inject for demonstration.

Wright County

Wright County has 100% siren coverage; there will not be an inoperable siren inject for demonstration.

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

State of Minnesota

This criterion is the responsibility of the counties and will not be demonstrated by the state.

Sherburne County

This criterion is not selected for this exercise and is not demonstrating route alerting

Wright County

This criterion is not selected for this exercise and is not demonstrating route alerting.

SUB-ELEMENT 5.b – Emergency Information and Instructions for the Public and the Media

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

State of Minnesota

After the SIM has approval of the PAD from the GAR, pre-scripted EAS messages communicating emergency information and instructions are released to the public. Initiating release of pre-scripted EAS messages is the responsibility of the SEOC Planning Chief. Special news bulletins will be pre-scripted and modified as needed and coordinated with all applicable agencies. The public will be told to remain tuned to their radio and television stations for further information. Special news broadcasts will be announced in the JIC media briefing room. Social media will be used to further disseminate messaging but will not be evaluated.

The Lead PIO and other organizational PIOs will work together in the JIC work area (located in the SEOC). They will determine what information is released to the general public however, the emergency information will contain all the necessary and applicable instructions (e.g., evacuation instructions, evacuation routes, reception center locations, what to take when evacuating, shelter-in-place instructions, information concerning protective actions for schools and persons with disabilities and access/functional needs, and the public inquiry hotline telephone number) to assist the public in carrying out the PADs provided. The emergency information will include previously identified protective action areas that are still valid, as well as new areas and emergency information that is no longer valid will be rescinded and not repeated by broadcast media. In addition, the JIC will demonstrate the capability to ensure that current emergency information is repeated at pre-established intervals in accordance with the plans/procedures. Media briefings will be demonstrated in the media briefing room. Media briefings will be streamed live into the SEOC but will not be evaluated.

PIOs will simulate the distribution of news releases and advisories via e-mail and will log the distribution, recording what they would have actually sent out. A list of the media organizations will be provided to the evaluator. The Lead PIO will coordinate all information released to the media.

An Information Hotline (public inquiry) will be operated from the SEOC. Controllers using pre-scripted controller messages will make incoming calls. During this exercise, controllers from the staff of HSEM will make calls into the information hotline using prescribed messages. Information Hotline staff will answer phones and communicate any rumor trends to the Operations Chief or Asst. Operations Chief through the Hotline Supervisor for action. Televisions used to monitor media broadcasts are located in the Information Hotline and PIO work areas. For the exercise the televisions may not be turned on.

Sherburne County

Emergency information released to the public and the news media are the responsibility of the SEOC and the JIC. The Sherburne County Public Information Liaison will demonstrate the coordination of county public information through the JIC. The Sherburne County PIO state liaison will be pre-positioned near the SEOC and will wait an appropriate amount of time before beginning play.

Sherburne County will not be demonstrating any local briefings.

Wright County

Emergency information released to the public and the news media are the responsibility of the SEOC and the JIC. The Wright County Public Information Liaison will demonstrate the coordination of county public information through the JIC. The Wright County PIO state liaison will be pre-positioned near the SEOC and will wait an appropriate amount of time before beginning play.

Wright County will not be demonstrating any local briefings

EVALUATION AREA 6 – SUPPORT OPERATION/FACILITIES

SUB-ELEMENT 6.a – Monitoring, Decontamination and Registration of Evacuees

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

State of Minnesota

This criterion will not be demonstrated at the July 2013 exercise demonstration. Wabasha Reception Center will be exercised in the August 15, 2013

demonstration. The demonstration will be held in Wabasha County at the Wabasha High School located at 2113 Hiawatha Dr E in Wabasha, MN.

Wright County and Sherburne County

This is a state function and will not be demonstrated by the counties.

SUB-ELEMENT 6.b – Monitoring and Decontamination of Emergency Workers and their Equipment and Vehicles

Criterion 6.b.1: The facility/ORO has adequate procedures and resources to accomplish monitoring and decontamination of emergency workers and their equipment and vehicles.

State of Minnesota

This is a county responsibility and will not be demonstrated by the state.

Wright County and Sherburne County

This criterion was not selected during this exercise.

Goodhue County

Emergency Worker Monitoring and Decontamination will be demonstrated at 6:00 PM Tuesday August 13, 2013 at the Cannon Falls Fire Station located at 320 Hoffman Street West in Cannon Falls in Goodhue County.

SUB-ELEMENT 6.c – Temporary Care of Evacuees

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

State of Minnesota

This criterion will not be demonstrated in the July 2013 exercise. Congregate Care will be fully demonstrated August 15, 2013 in conjunction with the Wabasha Reception Center stationed in the Wabasha High School. The Reception Center demonstration will be held in Wabasha County at the High School located at 2113 Hiawatha Dr E in Wabasha, MN.

Note: *Congregate Care Facilities are designated and operated by the Red Cross.*

Sherburne County, Wright County

This is a state function and will not be demonstrated by the counties.

SUB-ELEMENT 6.d – Transportation and Treatment of Contaminated Injured Individuals

Criterion 6.d.1: The facility/ORO has the appropriate space, adequate resources, and trained personnel to provide transport, monitoring, decontamination and medical services to contaminated injured individuals.

State of Minnesota

MS-1 Transportation (Ambulance)

This criterion will be demonstrated for Wabasha Community Ambulance Service on August 13, 2013.

MS- 1 (Facilities)

This criterion will be demonstrated for St Elizabeth's Medical Center – Wabasha on August 13, 2013.

Sherburne County, Wright County

This is a state function and will not be demonstrated by the counties.

APPENDIX F: SCENARIO DETAILS

Monticello Nuclear Generating Plant Offsite Timeline - Rev. 1.1 July 23, 2013

TIME	EVENT SUMMARY
0700	<u>INITIAL CONDITIONS</u> The reactor has been at continuous operation for 98 days. Met conditions are as follows: A strong storm front extending from Canada to Nebraska will pass over the MNGP during the morning hours. NOAA weather radio indicates that the storm may produce strong leading edge winds and straight-line winds.
~0810	CRITICAL EAL INFORMATION: As the leading edge of a storm passes over MNGP a straight-line wind event occurs in the protected area. The Control Room Meteorological Data Recorder shows winds in excess of 100 mph. The exhaust structure from the #12 EDG (Emergency Diesel Generator) is damaged and security reports that part of muffler is lying on the ground behind the # 12 EDG room. No personnel have been injured.
~0815	Meteorological Conditions will return to normal with a wind direction from $225 \pm 7^\circ$, southwest, at 9 ± 3 mph. Temperature is in the mid 80's with noon time temperatures expected in the upper 80's. Stability class is D.
0810-0825	The Shift Manager should declare an ALERT based on EAL HA1.2 , "Tornado or high winds GREATER THAN 100 mph with plant PROTECTED AREA boundary and resulting in VISIBLE DAMAGE to any plant structures / equipment (Table H-1) or Control Room indication of degraded performance of those systems. (Reference A.6) The high wind value in EAL HA1.2 is based on an elevation 30 feet above the ground (~ 10 meters). EAL HA1.2 is based on the USAR design basis sustained wind speed of 100 mph. Wind loads of this magnitude can cause damage to safety functions.

0825-0840 Offsite Notifications (State and Counties) for the Alert should be completed.

1. Call list notifications take place.
2. Emergency Operating Center (EOC) activation (State of Minnesota, Wright and Sherburne Counties) occurs.
 - EOC security system initiated
 - Maps, displays set up, messages forms, logs, etc. distributed
 - Communication links established and maintained throughout the exercise
 - Assembled EOC personnel briefed, with additional briefings held periodically throughout the exercise

Monticello Nuclear Generating Plant Offsite Timeline - Rev. 1.1 July 23, 2013

TIME	EVENT SUMMARY
	<p>Note: The BCA Duty Officer participation is complete when notifications are completed and they are informed by the Planning and Assessment Center that they have taken over communication with the plant.</p> <ol style="list-style-type: none"> 3. Radiological Accident Deployment (RAD) teams and Team Captain respond to Maple Grove fire station. From there, they will be dispatched to affected areas. (Command Van and Field Team actions are simulated) (CONTROLLER MESSAGE 1- Field Teams simulated) 4. Department of Natural Resources and Department of Agriculture Department Operations Centers (DOCs) are activated (simulated). 5. Local and state first responders are put on standby. 6. Joint Information Center (JIC) is activated. <ul style="list-style-type: none"> - Public Information Officers (PIOs) notified - JIC displays and media information kits arranged. - JIC Security and Moderator report to media briefing room - Initial JIC Management Team meeting - Initial news briefing conducted by HSEM Director - Preparation and issue of Public Information Bulletins and news releases will continue until the termination of the exercise. 7. Planning Chief requests additional radiological assets from the 55thCST and DOE radiological assets are requested through FRMAC. (Simulated). 8. The Planning and Assessment Center initiates dose assessment (CONTROLLER MESSAGE 2 – Weather)
~0915	CONTROLLER MESSAGE 3 - JIC school closure rumor
~0927	The #12 CRD pump trips on overload. This will happen because a broken minimum flow line on # 12 CRD pump.
~0930	The operating crew will attempt to scram the Rx based on a loss of CRD flow (C.4 B.01.03.A) and the Rx will fail to scram. RPS will not actuate and ATWS system will not insert rods. As a result of crew actions for the ATWS, RPV level will lower and a secondary containment isolation will occur. Because of this the off-site release for the remainder of the exercise will be through SBTG via the Off-Gas stack.

Monticello Nuclear Generating Plant Offsite Timeline - Rev. 1.1 July 23, 2013

TIME	EVENT SUMMARY
~0930	CRITICAL EAL INFORMATION: The failure of RPS and ATWS to lower power below 3.5% meets the threshold for declaring a SITE AREA EMERGENCY per EAL SS2.1.
0930-0945	The Station should declare a SITE AREA EMERGENCY based on EAL SS2.1. Indications exist that automatic and manual scrams were NOT successful in reducing power to LESS THAN 3.5%.
~0943	The HPCI (High Pressure Coolant Injection) steam line leak starts. Main steam chase temperature will rise from normal values.
~0945	The HPCI steam line leak will result in receipt of alarm 3-B-56 (Hi Area Temp Steam Leak). The control room crew should enter procedure C.4-B.02.04.A (Steam Leak Outside of Primary Containment) and C.5-1300 (Secondary Containment Control). This will result in the crew evacuating the Rx bldg and closing the MSIVs. Due to the location of the leak (HPCI steam line) closing the MSIVs will not isolate the leak. The crew may also isolate RWCU and RCIC.
~0950	The HPCI steam leak that has been occurring for the last few minutes will cause main steam chase temperature to exceed 212°F (greater than max safe per C.5-1300). When the control room crew attempts to isolate the leak the inboard steam isolation valve for HPCI (MO-2034) will fail OPEN. This will result the following items on table F-1 of the EALs being checked: <ul style="list-style-type: none"> • # 3 in the POTENTIAL LOSS column for the RCS barrier and • # 3 in the LOSS column for the Primary Containment Barrier (Unisolable primary system leakage outside drywell).

0945-1000 The off-site notifications to the state and counties of the SITE AREA EMERGENCY should be completed.

- EOC and field staff are notified of the classification upgrade.
 - State EOC, JIC
 - Sherburne and Wright County EOCs
 - RAD Teams Maple Grove & Plymouth (simulated) (DNR and Agriculture are simulated)
 - Decontamination Centers (simulated/out of sequence activity)
 - Reception Centers are activated (simulated/out of

Monticello Nuclear Generating Plant Offsite Timeline - Rev. 1.1 July 23, 2013

TIME	EVENT SUMMARY
	sequence activity)
	<ol style="list-style-type: none"> 2. Congregate Care Center is activated (simulated/ out of sequence activity) 3. Schools are evacuated to sister schools (simulated). 4. MDA and DNR field sampling teams put on standby (simulated). 5. Governor advised of incident status. "State of Emergency" recommended by State Incident Manager. 6. "State of Emergency" declared by Governor. 7. Livestock placed on covered water and stored feed.
~1005	A small LOCA in the drywell will develop causing a rise in drywell pressure. Drywell pressure will rise to about 4-5 psig.
~1015	A damaged relay will cause a lock out of Bus 11 and the loss of # 11 RFP and # 11 Condensate pump.
~1025	CONTROLLER MESSAGES 4(JIC evacuation rumor) & 5(backup communication)
~1035	Traffic Impediments CONTROLLER MESSAGES 6, 7 & 8
~1045	An oil leak will develop on #12 RFP resulting in the loss of # 12 RFP. Note: If the crew attempts to use RCIC for level control, it will start but only run at minimum speed due to an EGM/EGR problem.
~1120	CRITICAL EAL INFORMATION: Due to degrading leak conditions in the drywell and failure of high pressure injection systems, water level will lower below the top of active fuel.
1120-1135	The Station should declare a GENERAL EMERGENCY based on EAL FG1.1 , "Loss of ANY two barriers AND Loss or Potential Loss of third barrier (Table F-1)." This will be due to: <ul style="list-style-type: none"> • the LOSS the <u>RCS barrier</u> • the LOSS the <u>Primary Containment Barrier</u> and

Monticello Nuclear Generating Plant Offsite Timeline - Rev. 1.1 July 23, 2013

TIME	EVENT SUMMARY
	<ul style="list-style-type: none">the POTENTIAL LOSS the <u>Fuel Clad Barrier</u> (Reactor Water Level Less than -126" (TAF) <p>Release rate at 1130 of Noble Gases with SBGT 1.2E+06, Particulates with SBGT 5.00E+03 and zero Iodine with and without SBGT.</p>
1135-1150	The off-site notifications to the state and counties of the GENERAL EMERGENCY and Initial PAR should be completed.
	<ol style="list-style-type: none">EOC and field staff are notified of the classification upgrade.<ul style="list-style-type: none">State EOC, JICWright and Sherburne County EOCsRAD TeamsDecontamination CentersMinnesota's default protective action recommendation (PAR) is to evacuate the 2-mile sub-area and the 5-mile sub-area(s) in the downwind sectors. Sub Areas 2, 5N, and 5E will be recommended by the Planning Chief to the State Incident Manager.When PADs are approved, the Public Alert and Notification System (PANS) will be implemented. The EAS system will be activated and sirens sounded (simulated).As PADs are recommended, necessary traffic control points are activated for evacuee traffic flow and to restrict incoming traffic (simulated).RAD teams are in the field monitoring radiation levels and reporting to planning and assessment staff in State EOC. (simulated)All emergency response organizations are fully activated.Radiological response support requested from FEMA
~1215-1220	CONTROLLER MESSAGES 9 – (pets to Reception Center)
~1250	Plant is stable, the exercise is terminated – when the state has completed the media briefing for the General Emergency.

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