



# FEMA

NOV 6 / 2012

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

To Whom It May Concern:

Enclosed is one copy of the After Action Report/Improvement Plan (AAR/IP) for the July 10, 2012, Radiological Emergency Preparedness (REP) Full Participation Plume Exposure Pathway Exercise for the Prairie Island Nuclear Generating Plant. Under separate cover, four copies of this report are being sent to the Minnesota Homeland Security and Emergency Management Director for distribution to the Counties of Goodhue and Dakota with an additional copy for the state. Also under separate cover three copies are being sent to the Wisconsin Emergency Management Administrator for distribution to Pierce County with an additional copy for the state. The States of Minnesota and Wisconsin, Dakota, Goodhue and Pierce Counties, and the utility owner/operator, Xcel Energy, participated in this exercise. The AAR/IP was prepared by the U.S. Department of Homeland Security/Federal Emergency Management Agency (DHS/FEMA) Region V, Radiological Emergency Preparedness Program.

There was one Deficiency identified for the State of Minnesota during this exercise. On October 9, 2012, this Deficiency was successfully re-demonstrated. There were no deficiencies identified for the Counties of Goodhue and Dakota. There were five Areas Requiring Corrective Action (ARCAs) identified for the State of Minnesota. Per the Letter of Scheduled Corrective Actions received by DHS/FEMA Region V from the State of Minnesota dated October 12, 2012, two of the ARCAs were corrected. The State of Minnesota had three Planning Issues identified during this exercise. There was one ARCA and one Planning Issue identified for Goodhue County during this exercise. There was one ARCA identified for Dakota County during this exercise. There was one Planning Issue for Dakota County from a previous exercise, which was resolved.

The Deficiency 50-12-3d2-D-01 was identified for the State of Minnesota under Criterion 3.d.2- Impediments to evacuation are identified and resolved. Revised evacuation route selection was done without consideration of plume direction. It led to the re-routing of evacuating traffic into the plume instead of away from and around the plume. The lack of coordination when implementing the decision to revise evacuation routes lead to unnecessary increase in radiation exposure to the evacuating public. On October 9, 2012, this Deficiency was successfully re-demonstrated.

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The first ARCA 50-12-6a1-A-08 for the State of Minnesota was identified under Criterion 6.a.1- The reception center has appropriate space, adequate resources and trained personnel to provide monitoring, decontamination and registration of evacuees. The Canberra MiniSentry Transportable Gamma Portal Monitors used at the Cottage Grove Reception Center for evacuees received source checks with a 10 micro curie CS-137 source. Per the Letter of Scheduled Corrective Actions received by DHS/FEMA Region V from the State of Minnesota dated October 12, 2012, the ARCA was corrected. This ARCA is closed.

The second ARCA 50-12-1e1-A-10 for the State of Minnesota was identified under Criterion 1.e.1- 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 SOG indicate that the 44-6 detector be checked on both settings. This ARCA remains open.

The third ARCA 50-12-3a1-A-11 for the State of Minnesota was identified under Criterion 3.a.1- OROs issue appropriate dosimetry, potassium iodide (KI) and procedures and manage radiological exposure to emergency workers in accordance with the plans/procedures. The turn-back value is based on exposure rate, but the SOGs instructs the field team members to set their survey instrument to measure activity. Team members had no way of knowing if they had reached an area with an exposure rate equal to or greater than the turn-back value of 100 mR/hr or greater. This ARCA remains open.

The fourth ARCA 50-12-4a3-A-12 for the State of Minnesota was identified under Criterion 4.a.3- Ambient radiation measurements are made and recorded at appropriate locations and radioiodine and particulate samples are collected. 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 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. This ARCA remains open.

The fifth ARCA 50-12-1e1-A-13 for the State of Minnesota was identified under Criterion 1.e.1- Equipment, maps, displays, monitoring instruments, dosimetry, potassium iodide and other supplies are sufficient to support emergency operations. The Canberra MCB-2 survey meters used by the State of Minnesota Radiological Accident Deployment (RAD) Field Teams for air sample filter and cartridge counting did not have the effective range of readings affixed to the meters. A source check was performed for operability but there was no acceptable range of reading available for comparison. Per the Letter of Scheduled Corrective Actions received by DHS/FEMA Region V from the State of Minnesota dated October 12, 2012, the ARCA was corrected. This ARCA is closed.

The first Planning Issue 50-12-5b1-P-02 for the State of Minnesota was identified under Criterion 5.b.1- Subsequent Emergency Information and Instructions for the Public and the Media. Evacuation directions for the Red Wing area in a pre-scripted news release describes traffic flow on Highway 55 heading in the east direction. Evacuation Route maps show traffic flow to the west. The general public could potentially be sent in the wrong direction during an evacuation. This Planning Issue remains open. This Planning Issue will be addressed in the 2013 Emergency Operations Plan submittal to DHS/FEMA Region V by the State of Minnesota.

The second Planning Issue 50-12-3a1-P-09 for the State of Minnesota was identified under Criterion 3.a.1-OROs issue appropriate dosimetry, KI and procedures and manage radiological exposure to emergency workers in accordance with plans/procedures. The Charge Nurse did not inform the Radiation Safety Responders of their turn-back value or their administrative control limit. These values are not described in the Regional Hospital Radiation Decontamination Documentation Plan. This Planning Issue remains open. This Planning Issue will be addressed in the 2013 Emergency Operations Plan submittal to DHS/FEMA Region V by the State of Minnesota.

The third Planning Issue 50-12-6a1-P-07 for the State of Minnesota was identified under Criterion 6.a.1-Reception Center facilities have adequate space, adequate resources and trained personnel to provide monitoring and decontamination and registration of evacuees. Decontamination personnel had simulated contaminated evacuee attempt to decontaminate a spot of contamination on their outer clothing with the use of tape and wet wipe cloth wipes. The use of the wet cloth wipes on a porous material; such as clothing could result in contamination of evacuees' skin under the clothing. This Planning Issue remains open. This Planning Issue will be addressed in the 2013 Emergency Operations Plan submittal to DHS/FEMA Region V by the State of Minnesota.

There was one ARCA and one Planning Issue identified for Goodhue County during this exercise.

The ARCA 50-12-3a1-A-05 for Goodhue County was identified under Criterion 3.a.1-OROs issue appropriate dosimetry, KI and procedures and manage radiological exposure to emergency workers in accordance with the plans/procedures. Permanent Record Dosimeters (PRDs), such as Thermoluminescent Dosimeters (TLDs) were not issued to each of the EOC Staff. The Emergency Operations Center (EOC) was located inside the Prairie Island Nuclear Generating Plant 10-mile Emergency Planning Zone (EPZ). While the Radiological Officer included PRDs in the three group dosimetry kits deployed throughout the EOC, he did not issue a PRD to each EOC participant, as required by the extent-of-play agreement and current FEMA guidance. This ARCA remains open.

The Planning Issue 50-12-1e1-P-14 for Goodhue County was identified under Criterion 1.e.1-Equipment, maps, displays, monitoring instruments, dosimetry, potassium iodide and other supplies are sufficient to support emergency operations. An inspection of two portal monitors revealed that the calibration label was not affixed to each portal monitor showing the date of the last calibration. The April 2012 Radiological Emergency Preparedness Program Planning Manual, II-50, "requires each portal monitor to be labeled with the date of last operational check and the date of the next calibration." Failure to post calibration information could compromise monitoring results. This Planning Issue remains open. This Planning Issue will be addressed in the 2013 Emergency Operations Plan submittal to DHS/FEMA Region V by Goodhue County.

There was one ARCA identified for Dakota County during this exercise. There was one Planning Issue for Dakota County from a previous exercise, which was resolved.

The ARCA 50-12-3d2-A-06 for Dakota County was identified under Criterion 3.d.2-Impediments to evacuation are identified and resolved. Traffic evacuating Dakota County via Highway 61 was rerouted east into the EPZ. Lack of communication and coordination with other EOC agencies resulted in the incorrect evacuation route being selected. This ARCA remains open.

The Planning Issue 50-10-1e1-P-03 for Dakota County from a previous exercise under Criterion 1.e.1- Equipment, maps, displays, monitoring instruments, dosimetry, potassium iodide and other supplies are sufficient to support emergency operations. The Radiological Officer (RO) packaged the expired DRD's with the other items maintained in the Dosimetry/KI Kits to be distributed to the emergency workers at the Dakota County EOC. Dakota County updated their Standard Operating Guidelines (SOG) for the RO to ensure all direct-reading dosimeters have current calibration dates properly marked on the device before issuing to emergency workers. This planning issue is closed.

There were no Deficiencies identified for the State of Wisconsin or Pierce County. The State of Wisconsin had one ARCA identified and one Planning Issue identified. Per the Letter of Scheduled Corrective Actions received by DHS/FEMA Region V from the State of Wisconsin dated October 12, 2012, the ARCA was corrected. The State of Wisconsin also had one Planning Issue from a previous exercise that remains unresolved. Pierce County had no issues identified.

The ARCA 50-12-1e1-A-04 for the State of Wisconsin was identified Criterion 1.e.1-Equipment maps, displays, monitoring, instruments, dosimetry, KI and other supplies are sufficient to support emergency operations. The Eberline E-120 survey meters that the Elmwood Reception Center (RC) staff used for monitoring for contaminants of evacuees and emergency workers were set up and operationally checked by the Radiological Officer and his assistant. The meters were setup using the Pierce County RC plan; however the plan calls for a check source to be used for comparing readings as indicated on the source. The meters all had check sources attached, but did not have the required check source readings on a sticker affixed to each instrument to compare the instrument readings within the +/- 20% value of the check source reading. Per the Letter of Scheduled Corrective Actions received by DHS/FEMA Region V from the State of Wisconsin dated October 12, 2012, the ARCA was corrected. This ARCA is closed.

The Planning Issue 50-12-1e1-P-03 for the State of Wisconsin was identified under Criterion 1.e.1- Equipment, maps, displays, monitoring, instruments, dosimetry, KI and other supplies are sufficient to support emergency operations. According to the Wisconsin Radiological Incident Response Plan (RIRP) (version 2.2), Volume 3, Appendix D, Section D.1, Sample Point F-4 was located at the intersection of County Road K and 860th Street (Trenton Road) at a distance of approximately 3.8 miles East/South East of the PINGP. There is another location where 860<sup>th</sup> Street intersects County Road K, approximately 0.8 miles Northwest of Sample Point F-4. The second location is approximately 3.2 miles from PINGP. This Planning Issue remains open. This Planning Issue will be addressed in the 2013 RIRP plan submittal to DHS/FEMA Region V by the State of Wisconsin.

The Planning Issue 33-11-1e1-P-05 for the State of Wisconsin from a previous exercise which was not resolved was identified under Criterion 1.e.1-Equipment, maps, displays, monitoring, instruments, dosimetry, KI and other supplies are sufficient to support emergency operations. Restricted Area Field Team #2 (RAFT) did not record background measurements in a clean area for either the Fluke Victoreen 451B Ion Chamber Survey Meter or the Ludlum Model 12 Rate meter with Model 44-9 Probe.



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During the interview, team members were unable to recall what the original or baseline background readings had been. There are no instructions in the Wisconsin Department of Health Radiological Incident Response Plan (RIRP) to record baseline instrument readings. This could cause the RAFT #2 teams to find themselves in a contaminated environment with no initial readings to reference. This Planning Issue will be addressed in the 2013 RIRP plan submittal to DHS/FEMA Region V by the State of Wisconsin.

A detailed discussion of these issues can be found in Part IV of the Final Report.

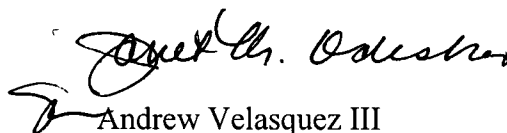
Based on the results of the July 10, 2012, exercise, in addition to the successful results from the October 9, 2012, Deficiency re-demonstration, the offsite radiological emergency response plans and preparedness for the States of Minnesota and Wisconsin and affected local jurisdictions, site-specific to the Prairie Island Nuclear Generating Plant, can be implemented and are adequate to provide reasonable assurance that appropriate measures can be taken offsite to protect the health and safety of the public in the event of a radiological emergency at the site.

Therefore, the Title 44 CFR, Part 350, approval of the offsite radiological emergency response plans and preparedness for the States of Minnesota and Wisconsin site-specific to the Prairie Island Nuclear Generating Plant, granted on December 8, 1981, remains in effect.

Copies of this Report were transmitted to the DHS/FEMA National Office, Nuclear Regulatory Commission (NRC) Headquarters' Document Control Desk and the States of Minnesota and Wisconsin.

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

Sincerely,

  
Andrew Velasquez III  
Regional Administrator

Enclosure (1)



Prairie Island Nuclear Generating Plant

# After Action Report/ Improvement Plan

Exercise Date - July 10, 2012

Radiological Emergency Preparedness (REP) Program



**FEMA**

*Published October 29, 2012*

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# Prairie Island Nuclear Generating Plant After Action Report/Improvement Plan

*Published October 29, 2012*

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## EXECUTIVE SUMMARY

On July 10, 2012, a Full Participation Plume Exposure Pathway Radiological Emergency Preparedness (REP) Exercise evaluation was conducted by the U.S. Department of Homeland Security (DHS)/Federal Emergency Management Agency (FEMA) for the 10-mile Emergency Planning Zone (EPZ) around the Prairie Island Nuclear Generating Plant (PINGP). 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 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 24, 2010. The qualifying emergency preparedness exercise was conducted on December 8, 1981.

The Xcel Energy Corporation owns and operates the PINGP. The plant consists of two pressurized water reactors (Units 1 and 2); both rated at 560 megawatts (MW). The operating licenses for the facility were granted in August 1973 (Unit 1) and October 1974 (Unit 2). Commercial operations began at the site during December 1973 (Unit 1) and December 1974 (Unit 2). The plant site consists of approximately 560 acres located in the City of Red Wing (2010 population: 16,116) on the west bank of the Mississippi River in Goodhue County, Minnesota. The latitude of the site is 44° 37'3" north and the longitude is 92° 37'9" west. The property is level to slightly rolling. The site elevation ranges from 675 to 706 feet above mean sea level (msl). The Mississippi River flows from northeast to southwest through the 10-mile EPZ. The Vermillion River flows northwest to southeast. Steep bluffs surround the river, rising to more than 1,000 feet above msl about 1½ miles northeast and southwest of the site. The following Sub-Areas are included within the 10-mile EPZ: Sub-Areas 2, 5N, 5E, 5S, 5W, 10N, 10NE, 10E, 10SE, 10SW, 10W and 10NW.

The total plume pathway EPZ population is 29,241 (2003 Xcel data). The nearest large population centers are St. Paul, Minnesota (2000 population 287,151), 42 miles northwest of the site; Minneapolis, Minnesota (2,642,056), 47 miles northwest of the site; Rochester, Minnesota (80,168), 41 miles south; and Eau Claire, Wisconsin (51,000), 55 miles east-northeast. Goodhue County, in which the site is located and the adjacent counties (Dakota in Minnesota and Pierce in Wisconsin) are predominately rural. Located within two miles of the site, however, is a Native-American-owned gambling casino, the Treasure Island Casino, which is situated on the Prairie

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Island reservation, which has an average daily attendance of 23,000 persons per day. The remaining land within a 10-mile radius of the site is almost exclusively agricultural.

The DHS/FEMA wishes to acknowledge the efforts of the many individuals who participated in this exercise. In the State of Minnesota, the risk counties of Goodhue and Dakota participated along with State Government and the Prairie Island Indian Community. In the State of Wisconsin, the risk county of Pierce participated along with State Government.

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

This Final After Action Report/Improvement Plan contains the evaluation of the biennial exercise and the evaluation of the following out-of-sequence interviews and activities:

State of Minnesota

- Medical Services Transportation at Cottage Grove Emergency Medical Services
- Medical Services Hospital evaluation at Regions Hospital

Goodhue County

- Emergency Worker Monitoring/Decontamination at the Red Wing Fire Department
- Emergency Worker Vehicle Monitoring/Decontamination at Red Wing Fire Department

Dakota County

- There were no out-of-sequence activities

State of Wisconsin

- Medical Services Hospital evaluation at Sacred Heart Hospital
- Monitoring/Decontamination of Evacuees and Emergency Workers at the Elmwood School
- Monitoring/Decontamination of Emergency Worker's equipment

Pierce County

- Protective Actions for Schools (EV-2) for the Lindgren Learning Center
- Public Registration at the Elmwood School

- Medical Services Transportation at Elmwood School
- Medical Services Transportation evaluation for the Ellsworth Area Ambulance Service

There was one Deficiency identified for the State of Minnesota during this exercise. On October 9, 2012, this Deficiency was successfully re-demonstrated. There were no deficiencies identified for the Counties of Goodhue and Dakota. There were five Areas Requiring Corrective Action (ARCAs) identified for the State of Minnesota. Per the Letter of Scheduled Corrective Actions received by DHS/FEMA Region V from the State of Minnesota dated October 12, 2012, two of the ARCAs were corrected. The State of Minnesota had three Planning Issues identified during this exercise. There was one ARCA and one Planning Issue identified for Goodhue County during this exercise. There was one ARCA identified for Dakota County during this exercise. There was one Planning Issue for Dakota County from a previous exercise, which was resolved.

There were no Deficiencies identified for the State of Wisconsin or Pierce County. The State of Wisconsin had one ARCA identified and one Planning Issue identified. Per the Letter of Scheduled Corrective Actions received by DHS/FEMA Region V from the State of Wisconsin dated October 12, 2012, the ARCA was corrected. The State of Wisconsin also had one Planning Issue from a previous exercise that remains unresolved. Pierce County had no issues identified.

Sections 3 and 4 of this report provide detailed information regarding any Deficiencies, ARCAs, Planning Issues and Schedule of Corrective Actions.

## INTRODUCTION - EXERCISE BASIS

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

The FEMA Rule 44 CFR 350 establishes the policies and procedures for DHS/FEMA's initial and continued approval of State and local governments' radiological emergency planning and preparedness for commercial nuclear power plants. This approval is contingent, in part, on State

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and local governments' participation in joint exercises with licensees.

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

- Taking the lead in offsite emergency planning and in the review and evaluation of RERPs and procedures developed by State and local governments;
- Determining whether such plans and procedures can be implemented on the basis of observation and evaluation of exercises of the plans and procedures conducted by State and local governments;
- Responding to requests by the U.S. Nuclear Regulatory Commission (NRC) pursuant to the Memorandum of Understanding between the NRC and FEMA dated June 17, 1993 (Federal Register, Vol. 58, No. 176, September 14, 1993); and
- Coordinating the activities of Federal agencies with responsibilities in the radiological emergency planning process:
  - U.S. Department of Agriculture;
  - U.S. Department of Commerce;
  - U.S. Department of Energy;
  - U.S. Department of Health and Human Services;
  - U.S. Department of the Interior;
  - U.S. Department of Transportation;
  - U.S. Environmental Protection Agency;
  - U.S. Food and Drug Administration; and
  - U.S. Nuclear Regulatory Commission.

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

Formal submission of the RERPs for the Prairie Island Nuclear Generating Plant to FEMA Region V by the State of Minnesota and involved local jurisdictions occurred on March 12, 1981, and the State of Wisconsin and involved local jurisdictions on April 6, 1981. Formal approval of these RERPs was granted by FEMA to the State of Minnesota during September 1985 and to the State of Wisconsin during May 1985, under 44 CFR 350.

A Full Participation Plume Exposure Pathway REP Exercise was conducted on July 10, 2012, and evaluated by DHS/FEMA to assess the capabilities of State and local offsite emergency

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preparedness organizations in implementing their RERPs and procedures to protect the public health and safety during a radiological emergency involving the Prairie Island Nuclear Generating Plant. The purpose of this exercise report is to present the exercise results and findings on the performance of the Offsite Response Organizations (ORO) during a simulated radiological emergency.

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

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

- NUREG-0654/FEMA-REP-1, Rev. 1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," November 1980;
- FEMA 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 listing of all participating jurisdictions and functional entities that were evaluated.

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

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

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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.

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## SECTION 1: EXERCISE OVERVIEW

### 1.1 Exercise Details

**Exercise Name**

Prairie Island Nuclear Generating Plant

**Type of Exercise**

Plume

**Exercise Date**

July 10, 2012

**Program**

Department of Homeland Security/FEMA Radiological Emergency Preparedness Program

**Scenario Type**

Radiological Emergency

### 1.2 Exercise Planning Team Leadership

William King

Radiological Assistance Committee Chairperson

DHS/FEMA

Radiological Assistance Committee, Chairman

536 South Clark Street

Chicago, Illinois, 60605

312-408-5575

William.King5@fema.dhs.gov

Gary Naskrent

Exercise Director

DHS/FEMA

Supervisory REP Team Leader

536 South Clark Street

Chicago, Illinois, 60605  
312-408-5214  
Gary.Naskrent@fema.dhs.gov

Stephen Tulley  
Alternate Exercise Director  
DHS/FEMA  
Supervisory REP Team Leader  
536 South Clark Street  
Chicago, Illinois, 60605  
312-408-4425  
Stephen.Tulley@fema.dhs.gov

Darren Bates  
Minnesota Site Specialist / Exercise Coordination  
DHS/FEMA  
Technical Hazards Program Specialist  
536 South Clark Street  
Chicago, Illinois, 60605  
312-408-5523  
Kerris.Bates@fema.dhs.gov

Edward Golinski  
Minnesota Site Specialist  
DHS/FEMA  
Technical Hazards Program Specialist  
536 South Clark Street  
Chicago, Illinois, 60605  
312-408-5353  
Edward.Golinski@fema.dhs.gov

James King  
Wisconsin Site Specialist



---

DHS/FEMA  
Technological Hazards Program Specialist  
536 South Clark St.  
Chicago, Illinois, 60605  
312-408-5596  
James.King@fema.dhs.gov

Kevin Leuer  
Director, Preparedness Branch  
Division of Homeland Security & Emergency Management  
Director  
444 Cedar Street  
Suite 223  
St. Paul, Minnesota, 55101  
651-201-7406  
Kevin.Leuer@mn.state.us

Robert Hines  
REP Exercise Coordinator  
Division of Homeland Security & Emergency Management  
REP Exercise Coordinator  
444 Cedar Street  
Suite 223  
St. Paul, Minnesota, 55101  
651-201-7406  
Robert.Hines@mn.state.us

Patrick McLaughlin  
REP Administrator  
Division of Homeland Security & Emergency Management  
REP Exercise Coordinator  
444 Cedar Street  
Suite 223

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St. Paul, Minnesota, 55101  
651-201-7434  
Patrick.McLaughlin@state.mn.us

Teri Engelhart  
REP Section Chief  
Wisconsin Emergency Management  
REP Section Chief  
PO Box 7865  
Madison, Wisconsin, 53707  
608-242-3242  
Terl.Engelhart@wisconsin.gov

Amy Hass  
Offsite Coordinator  
Xcel Energy  
Emergency Planning Coordinator  
1717 Wakonade Drive East  
Welch, Minnesota, 55089  
651-267-7257  
Amy.Hass@nmcco.com

Perry Manor  
Nuclear Engineer  
Wisconsin Department of Health Services  
Nuclear Engineer  
1 West Wilson Street  
Madison, Wisconsin, 53703  
608-267-4794  
Perry.Manor@dhs.wisconsin.gov

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## 1.3 Participating Organizations

Agencies and organizations of the following jurisdictions participated in the Prairie Island Nuclear Generating Plant exercise:

State Jurisdictions

- 434th Chemical Army National Guard
- Amateur Radio Emergency Service (ARES) - Goodhue District
- American Red Cross - Badger Chapter
- American Red Cross Chapter 23-348
- Board of Animal Health
- Burnside School
- City of Red Wing - Office of the Mayor
- City of Red Wing Emergency Management
- City of Red Wing Fire Department
- City of Red Wing Information Technology
- City of Red Wing Planning Department
- City of Red Wing Police Department
- Cottage Grove Fire Department
- Cottage Grove Police Department
- Dakota Communications Center
- Dakota County Community Services Department
- Dakota County Emergency Preparedness Department
- Dakota County Public Health Department
- Dakota County Public Information Officer
- Dakota County Public Information Officer Liaison
- Dakota County Radiological Officer
- Dakota County Sheriff's Department
- Department of Human Services
- Department of Natural Resources
- Ellsworth Community School District
- Ellsworth Fire Department
- Ellsworth School District Director of Transportation
- Ellsworth School District Superintendent
- Elmwood Area Ambulance Service

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Emergency Medical Services Regulatory Board  
Excel Energy Liaison  
First Student School Bus Transportation Services  
Goodhue County Board  
Goodhue County Board of Commissioners  
Goodhue County Department of Health and Human Services  
Goodhue County Department of Human Resources  
Goodhue County Emergency Management  
Goodhue County Public Works Department  
Goodhue County Sheriff's Department  
Hastings Fire Department  
Hastings School District  
LaCrosse Fire Department  
Maple Grove Fire Rescue  
State of Minnesota Fire Marshall  
Minnesota Civil Air Patrol  
Minnesota Department of Agriculture  
Minnesota Department of Education  
Minnesota Department of Health  
Minnesota Department of Human Services  
Minnesota Department of Natural Resources  
Minnesota Department of Transportation  
Minnesota Homeland Security and Emergency Management  
Minnesota National Guard  
Minnesota Pollution Control Agency  
Minnesota State Patrol  
Minnesota Voluntary Organizations Active in Disasters  
Office of Pipeline Safety  
Office of the Governor  
Pierce County Amateur Radio  
Pierce County Board Chair  
Pierce County Department of Health  
Pierce County Department of Human Services  
Pierce County Emergency Management Department

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Pierce County Emergency Management Director  
Pierce County Highway Department  
Pierce County Sheriff's Department  
Prairie Island Indian Community  
Prairie View Elementary School Principal  
Prairie View Elementary School Teacher  
Prescott Emergency Medical Service  
Red Wing High School  
Red Wing School District  
Salvation Army  
School District Bus Driver  
Spring Valley High School Superintendent of Buildings and Grounds  
Spring Valley High School Supervisor of Buildings  
Tower View School  
University of Minnesota Extension  
University of Wisconsin Extension  
University of Wisconsin Extension  
Wisconsin Air National Guard  
Wisconsin Department of Health Services, Radiation Protection  
Wisconsin Department of Corrections  
Wisconsin Department of Education  
Wisconsin Department of Health Services  
Wisconsin Department of Health Services, Radiation Protection  
Wisconsin Department of Justice  
Wisconsin Department of Military Affairs - Department of Emergency  
Management  
Wisconsin Department of Military Affairs - Emergency Management  
Wisconsin Department of Natural Resources  
Wisconsin National Guard  
Wisconsin Public Affairs Office  
Wisconsin State Patrol  
Xcel Energy

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## **SECTION 2: EXERCISE DESIGN SUMMARY**

### **2.1 Exercise Purpose and Design**

The DHS/FEMA Region V Radiological Emergency Preparedness (REP) Program Staff evaluated the the Prairie Island Nuclear Generating Plant Full Participation Plume Exposure Pathway REP Exercise conducted on July 10, 2012, to assess the capabilities of local emergency preparedness organizations in implementing their Radiological Emergency Response Plans (RERP) and procedures to protect the public health and safety during a radiological emergency involving the Prairie Island Nuclear Generating Plant. The purpose of this report is to present the results and findings on the performance of the Offsite Response Organizations (OROs) during a simulated radiological emergency.

### **2.2 Exercise Objectives, Capabilities and Activities**

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

The Exercise Planning Team (EPT) selected objectives that focus on evaluating emergency response procedures, identifying areas for improvement, and fostering collaboration between the various OROs 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 Field Measurement and Analysis;
- ORO demonstration of effective Emergency Notification and Public Information;
- ORO demonstration of effective Support Operations and Facilities.

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## 2.3 Scenario Summary

Appendix E also contains a summary of the Exercise Scenario and a simulated sequence of events that was used as the basis for invoking emergency response actions by OROs during the Prairie Island Nuclear Generating Plant Full Participation Plume Exposure Pathway REP Exercise on July 10, 2012.

Results of a technical review of the scenario, submitted by the State of Minnesota, the State of Wisconsin and Xcel Energy on May 16, 2012, indicated that the scenario was adequate to support demonstration of DHS/FEMA requirements, as well as criteria selected by the OROs provided in the State's November 22, 2011, extent-of-play submission. The DHS/FEMA Region V accepted this exercise scenario on June 28, 2012.

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

## **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 10, 2012, REP Full Participation Plume Exposure Pathway REP Exercise to test the off-site emergency response capabilities of State and local governments in the 10-mile EPZ surrounding the Prairie Island Nuclear Generating Plant (PINGP).

Each jurisdiction and functional entity was evaluated based on its demonstration of exercise criteria delineated in the FEMA 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 of this report.

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

- **M – Met:** The status of a REP exercise Evaluation Area Criterion indicating that the participating ORO demonstrated all demonstration criteria for the Evaluation Area Criterion to the level required in the extent-of-play agreement with no Deficiencies, 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 implementing procedures, rather than in the ORO’s performance.
- **N – Not Demonstrated** – Exercise criteria that were not demonstrated as scheduled during this exercise and the reason(s) they were not demonstrated.
- **Prior ARCAs - Resolved** – Descriptions of ARCAs assessed during previous exercises that were resolved and the corrective actions demonstrated, in this exercise.
- **Prior ARCAs - Unresolved** – Descriptions of ARCAs assessed during prior exercises that were not resolved in this exercise. Included is the reason the ARCA remains unresolved and recommended corrective actions to be demonstrated before or during the next exercise.

## **3.2 Summary Results of Exercise Evaluation**

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

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

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

The identifying number of Deficiencies, 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 (50 for Prairie Island Nuclear Generating Plant).

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- 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, which supercedes the Federal Register Notice, Vol. 67, No. 80, dated April 25, 2002.

- 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 (5 pages)

<p style="text-align: center;">DATE: 2012-07-10 SITE: Prairie Island Nuclear Generating Plant, MN M: Met, A: ARCA, D: Deficiency, P: Plan Issue, N: Not Demonstrated</p>			MN-BCA-IWP	MN-EOC	MN-PAC	MN-JIC	MN-Public Inquiry Hotline-EOC	MN-EOC Dakota County-State Coord	MN-EOC Goodhue County-State Coord	MN-RAD Team Command Van	MN-Rad. Accident Deployment Team #1	MN-Rad. Accident Deployment Team #2
Emergency Operations Management												
Mobilization	1a1	M	M	M	M			M	M		M	M
Facilities	1b1											
Direction and Control	1c1		M	M	M							
Communications Equipment	1d1	M	M	M	M	M				M	M	M
Equipment and Supplies to Support Operations	1e1		M	M	M					M	A	M
Protective Action Decision Making												
EW Exposure Control Decisions	2a1		M	M				M	M			
PARs	2b1		M	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	A	M
KI Public/Institutionalized	3b1		M									
PAD Implementation Disabled/Functional Needs	3c1											
PAD Implementation Schools	3c2		M									
TACP Establishment	3d1		M									
Impediments	3d2		M									
Implement Ingestion PADs	3e1											
Coordination of RRR Decisions	3e2											
Coordination of RRR Decisions	3f1											
Field Measurement and Analysis												
RESERVED	4a1											
Field Team Management	4a2									M		
Field Team Operations	4a3			M							A	M
Field Team Sampling	4b1											
Laboratory Operations	4c1											
Emergency Notification and Public Info												
Initial Alert & Notification	5a1		M					M	M			
RESERVED	5a2											
Backup Alert & Notification	5a3											
Exception Area Alerting	5a4											
Subsequent Information & Instructions	5b1		P		M	M	M	M				
Support Operations/Facilities												

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



[illegible]

[illegible]



**Table 3.1 - Summary of Exercise Evaluation (Continued. page 3/5)**

<p align="center">DATE: 2012-07-10 SITE: Prairie Island Nuclear Generating Plant, MN M: Met, A: ARCA, D: Deficiency, P: Plan Issue, N: Not Demonstrated</p>			Dakota County EOC-TACP	Goodhue-IWP	Goodhue-EOC	Goodhue County-SEOC-JIC-PIO	Goodhue County-EOC-TACP	Goodhue-Sheriff's-Route Alerting	GDH-Red Wing/Hastings School-EV-2	Goodhue County-RWFD-EW Mon/Decon	Goodhue-RWFD-EW Mon/Decon Equip/Veh	W1-SWC#2-IWP
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		P		
Protective Action Decision Making												
EW Exposure Control Decisions	2a1				M							
PARs	2b1											
PADs	2b2				M							
PADs for Disabled/Functional Needs	2c1				M							
Ingestion PADs	2d1											
RRR Decisions	2e1											
Protective Action Implementation												
EW Exposure Control Implementation	3a1	M			A		M	M		M		
KI Public/Institutionalized	3b1				M							
PAD Implementation Disabled/Functional Needs	3c1				M							
PAD Implementation Schools	3c2				M				M			
TACP Establishment	3d1	M			M		M					
Impediments	3d2				M							
Implement Ingestion PADs	3e1											
Coordination of RRR Decisions	3e2											
Coordination of RRR Decisions	3f1											
Field Measurement and Analysis												
RESERVED	4a1											
Field Team Management	4a2											
Field Team Operations	4a3											
Field Team Sampling	4b1											
Laboratory Operations	4c1											
Emergency Notification and Public Info												
Initial Alert & Notification	5a1				M							
RESERVED	5a2											
Backup Alert & Notification	5a3											
Exception Area Alerting	5a4							M				
Subsequent Information & Instructions	5b1				M	M						

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Table 3.1 - Summary of Exercise Evaluation (Continued. page 4/5)

<p style="text-align: center;">DATE: 2012-07-10 SITE: Prairie Island Nuclear Generating Plant, MN M: Met, A: ARCA, D: Deficiency, P: Plan Issue, N: Not Demonstrated</p>		WI-SEOC	WI-SEOC-RadCord	WI-FOC/MRL	WI-RAFT#1	W-RAFT #2	WI-SEOC-JIC-PIO	WI-PI-JIC-IC-BU	WI-Elmwood HS-EvWM	WI-Elmwood HS-EvWD	WI-Elmwood HS-EvMDV
Emergency Operations Management											
Mobilization	1a1	M	M	M	M	M	M				
Facilities	1b1										
Direction and Control	1c1	M	M	M			M		M		
Communications Equipment	1d1	M	M	M	M	M	M	M	M		
Equipment and Supplies to Support Operations	1e1	M	M	M	M	P	M		M		
Protective Action Decision Making											
EW Exposure Control Decisions	2a1	M	M								
PARs	2b1	M	M								
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	M		M	M	M			M		M
KI Public/Institutionalized	3b1	M	M								
PAD Implementation Disabled/Functional Needs	3c1										
PAD Implementation Schools	3c2										
TACP Establishment	3d1										
Impediments	3d2										
Implement Ingestion PADs	3e1										
Coordination of RRR Decisions	3e2										
Coordination of RRR Decisions	3f1										
Field Measurement and Analysis											
RESERVED	4a1										
Field Team Management	4a2		M	M							
Field Team Operations	4a3				M	M					
Field Team Sampling	4b1										
Laboratory Operations	4c1										
Emergency Notification and Public Info											
Initial Alert & Notification	5a1	M									
RESERVED	5a2										
Backup Alert & Notification	5a3										
Exception Area Alerting	5a4										
Subsequent Information & Instructions	5b1	M	M				M	M			
Support Operations/Facilities											
Reception Center Operations	6a1								M	M	M
EW Monitoring & Decontamination	6b1										M
Congregate Care	6c1										
Contaminated Injured Transport & Care	6d1										



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

DATE: 2012-07-10 SITE: Prairie Island Nuclear Generating Plant, MN M: Met, A: ARCA, D: Deficiency, P: Plan Issue, N: Not Demonstrated		W1-Sacred Heart H-MS1-F	PIE-Elmwood AmbSrv-MS1-	PIE-SDC-IWP	PIE-EOC	PIE-EOC-TACP-	PIE-Courthouse-DDP	PIE-JIC-PIO	PIE-Elmwood HS-CCC	PIE-Lingren Learning Ctr-EV2	PIE-Elmwood RC-DDP
Emergency Operations Management											
Mobilization	1a1			M	M						
Facilities	1b1										
Direction and Control	1c1				M						
Communications Equipment	1d1	M	M	M	M	M	M			M	M
Equipment and Supplies to Support Operations	1e1	M	M		M	M	M			M	M
Protective Action Decision Making											
EW Exposure Control Decisions	2a1				M						
PARs	2b1										
PADs	2b2				M						
PADs for Disabled/Functional Needs	2c1				M						
Ingestion PADs	2d1										
RRR Decisions	2e1										
Protective Action Implementation											
EW Exposure Control Implementation	3a1	M	M		M	M	M				M
KI Public/Institutionalized	3b1				M						
PAD Implementation Disabled/Functional Needs	3c1				M						
PAD Implementation Schools	3c2				M					M	
TACP Establishment	3d1				M	M					
Impediments	3d2				M						
Implement Ingestion PADs	3e1										
Coordination of RRR Decisions	3e2										
Coordination of RRR Decisions	3f1										
Field Measurement and Analysis											
RESERVED	4a1										
Field Team Management	4a2										
Field Team Operations	4a3										
Field Team Sampling	4b1										
Laboratory Operations	4c1										
Emergency Notification and Public Info											
Initial Alert & Notification	5a1				M						
RESERVED	5a2										
Backup Alert & Notification	5a3										
Exception Area Alerting	5a4										
Subsequent Information & Instructions	5b1				M			M			
Support Operations/Facilities											
Reception Center Operations	6a1										
EW Monitoring & Decontamination	6b1										
Congregate Care	6c1								M		

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After Action Report/Improvement Plan

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Contaminated Injured Transport & Care	6d1	M	M									
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### **3.3 Criteria Evaluation Summaries**

#### **3.3.1 Minnesota Jurisdictions**

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

The State of Minnesota Bureau of Criminal Apprehension - Initial Warning Point (IWP) demonstrated the Target Capability of an IWP including the use of effective procedures to alert, notify and mobilize emergency personnel and activate facilities in a timely manner. The IWP used effective procedures to alert, notify, and mobilize emergency personnel and activate facilities in a timely manner. Dispatchers were familiar with their nuclear incident notification procedures. There were redundant communication systems available at the IWP and both primary and back-up systems were used effectively during this exercise.

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

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

##### **3.3.1.2 State of Minnesota - Emergency Operations Center**

The State of Minnesota Emergency Operations Center (EOC) demonstrated the Target Capability of Emergency Operations Center Management including the use of effective procedures to alert, notify and mobilize emergency personnel and activate facilities in a timely manner. The State of Minnesota provided sufficient multi-agency coordination for an incident at the Prairie Island Nuclear Generating Plant (PINGP) by promptly activating and operating for the duration of the incident. The EOC was managed efficiently and effectively. The EOC completed an activation, notification and completed staffing to an operational level. The EOC manager provided solid management, direction and control using briefings. This allowed the staff of the EOC to maintain a common operating picture and overall response to the event. The EOC manager coordinated with other jurisdictions to make decisions and ensure that appropriate actions were taken to protect the health and safety of the public.

An issue was identified in which the Health & Safety of the general public was potentially compromised. This issue was classified as Deficiency 50-12-3d2-D-01.

On October 9, 2012 the State of Minnesota conducted a re-demonstration that successfully resolved the Deficiency.

An issue was identified in which the general public could potentially be sent the wrong way during an evacuation. This issue was classified as a Planning Issue 50-12-5b1-P-02.

The Planning Issue will remain open pending the submittal of an update to the 2012 State of Minnesota Emergency Operations Plan.

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.
- b. AREAS REQUIRING CORRECTIVE ACTION: None
- c. DEFICIENCY: 3.d.2.

ISSUE NO.: 50-12-3d2-D-01

CRITERION: Impediments to evacuation are identified and resolved.

CONDITION: Revised evacuation route selection was done without consideration of plume direction. It led to re-routing of evacuating traffic into the plume instead of away from and around the plume.

POSSIBLE CAUSE: There was insufficient coordination between the personnel responsible for revising evacuation routes and technical staff to insure plume/radiological release consideration /impact was taken into account when making the decision to revise evacuation routes.

REFERENCE: NUREG-0654/FEMA REP-1, J.10.k

EFFECT: The lack of coordination when implementing the decision to revise

evacuation routes lead to an unnecessary increase in radiation exposure to the evacuating public.

**CORRECTIVE ACTION DEMONSTRATED:** Following the July 10, 2012 Prairie Island Nuclear Generating Plant (PINGP) Radiological Emergency Preparedness (REP) Exercise, the State of Minnesota successfully re-demonstrated the capability to ensure impediments to evacuation are identified and resolved. The re-demonstration was conducted in response to Deficiency 50-12-3d2-D-01. The scenario and extent-of-play for the re-demonstration was based on the August 8, 2012, Schedule of Corrective Action letter from the State of Minnesota to the Department of Homeland Security/Federal Emergency Management Agency (DHS/FEMA) Region V and subsequent discussions between the aforementioned agencies.

The re-demonstration was conducted during an out-of-sequence activity on October 9, 2012, from approximately 1300 hours to 1430 hours at the State of Minnesota Emergency Operations Center (SEOC), 444 Cedar Street, Saint Paul, Minnesota.

In accordance with the extent-of-play agreement, the re-demonstration was facilitated by a REP Planner from the Minnesota Homeland Security and Emergency Management Division (HSEM). The demonstration was initiated as table top exercise and then completed as a functional exercise. The participants included the Deputy Planning Chief (DPC), Operations Chief (OC), the Planning Assessment Center (PAC), a Geographic Information Systems (GIS) Specialist, the Minnesota Department of Transportation (MNDOT) and the Minnesota State Patrol (MSP).

There were two projections screens utilized to display maps and a PowerPoint presentation that was developed to present the re-demonstration scenario for the table top portion of the exercise.

All times reflected in the scenario depict exercise time, not real world time.

At 1000 hours, a Site Area Emergency (SAE) Emergency Classification Level (ECL) incident was declared by the PINGP. The meteorological conditions reflected a wind speed of six miles per hour from 135 degrees.

At 1030 hours, it was reported that all required notifications were completed to the Offsite Response Organizations (ORO). The GIS Specialist provided hard copy evacuation route maps to the participants. She also utilized the projection screen so that all participants in the SEOC could view the maps.

The evacuation route map highlighted the downwind sector, Q, based on the meteorological conditions. It also highlighted the adjoining sectors, N, P, R and A and the default protective action recommendation (PAR) of Sub-Areas 2, 5N and 5W.

The DPC briefed the participants on the conditions at the PINGP. Her briefing consisted of the SAE ECL incident, current meteorological conditions and she reminded the participants to take the appropriate actions in accordance with their standard operating procedures (SOP). Furthermore, she reminded the MSP to either initiate the staffing of traffic and access control points (TACP) or to put their officers on standby and for the MnDot to ensure equipment was ready to be deployed.

The DPC with assistance from the PAC utilized the evacuation route map to inform the MSP and the MnDot of the potential evacuation area of Sub-Areas 2, 5N and 5W if the incident degraded further. She also used the PINGP evacuation time estimate (ETE) to inform the participants of the population (4,468 residents) and informed them that the estimated time to evacuate would be approximately 166 minutes. The DPC summed up her briefing by reminding participants to continue to use their SOPs and that the PAC would continue to provide assessment updates as needed.

At 1045 hours, the DPC announced that the Cottage Grove Reception Center staff were being placed on standby in the event the Reception Center was required to be opened.

At 1050 hours, the OC, the MSP and the MNDOT had a discussion regarding which evacuation routes were expected to be affected if a release of radioactive materials were to occur. The evacuation route map was used as a reference during the discussion. The discussion also revealed that there were no current traffic impediments on any of the evacuation routes.

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At 1100 hours, the PINGP declared a General Emergency ECL. At 1130 hours, it was announced that all notifications were complete to the OROs. The PAR was to evacuate Sub-Areas 2, 5N and 5W. The PAC completed their independent assessment and concurred with the PAR.

At 1135 hours, the protective action decision (PAD) was announced to all participants and actions to evacuate Sub-Areas 2, 5N and 5W commenced. The Cottage Grove Reception Center was opened, the emergency alert system was activated and the TACPs were fully staffed. The GIS Specialist updated the electronic evacuation route map on the projection screen and she provided the MSP and the MNDOT with hard copy maps with the affected Sub-Areas and downwind center line highlighted.

The PAC indicated that radiological release was out to three miles. The OC reminded the participants to avoid any routing that would send evacuees through the plume. The OC indicated that any evacuation route changes would need to be coordinated with the Joint Information Center (JIC), the Hotline Supervisor and the Counties of Goodhue and Dakota.

At 1145 hours, the MSP and the MNDOT were notified (via an inject message) that an accident had occurred on Minnesota Highway 50 and US Highway 52 in Dakota County resulting in the blocking of the intersection. The evacuation route was going to be blocked for three hours. Using their hard copy evacuation route map with the affected Sub-Areas and downwind center line highlighted, the MSP identified the impediment location.

After a brief discussion, the MSP identified an intersection east of the impediment to re-route evacuation traffic. The re-route sent evacuees north on Highway 61. The MSP coordinated with the DPC, OC and PAC to ensure that the route would not expose evacuees to the radiological plume. It was determined that the new route would allow evacuees to avoid the impediment, the radiological plume and to arrive at the Cottage Grove Reception Center with minimal delay.

The MSP, DPC and OC provided the updated evacuation route and impediment information to Goodhue and Dakota Counties, the JIC and the Hotline Supervisor.



At this point, the re-demonstration was concluded.

The availability of the updated evacuation route maps with each sector, evacuation routes and the radiological plume highlighted by the GIS Specialist allowed for a more efficient response to the impediment. Furthermore, this process provided more detailed information for the participants to ascertain how to re-route traffic around an impediment, but more importantly it led to the general public not being exposed to a radiological release.

All activities described in the demonstration criterion were carried out in accordance with the plan, procedures and extent-of-play agreement.

d. PLAN ISSUES: 5.b.1.

ISSUE NO.: 50-12-5b1-P-02

CRITERION: OROs provide accurate emergency information and instructions to the public and news media in a timely manner.

CONDITION: Evacuation directions for the Red Wing area on pre-scripted News Releases describe traffic flow on Highway 55 as flowing to the east. Evacuation Route maps show traffic flow to the west.

POSSIBLE CAUSE: Inconsistency in planning on this specific issue.

REFERENCE: NUREG-0654 E.7

EFFECT: The General Public could potentially be sent in the wrong direction during an evacuation.

RECOMMENDATION: Remedy this inconsistency by modifying either the evacuation News Releases or the mapping to reflect consistent traffic direction.

SCHEDULE OF CORRECTIVE ACTION: The evacuation route map has been

updated to no longer have directional arrows on the map in this location.

- 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**

The State of Minnesota Planning and Assessment Center (PAC) demonstrated the Target Capability of PAC Management including the use of effective procedures to alert, notify and mobilize emergency personnel and activate facilities in a timely manner. The PAC Manager used a decision-making process that involved considerations of appropriate factors, including utility recommendations, plant status, release rate, dose projections, field measurements, weather conditions and knowledge of the area and provided necessary coordination to make appropriate and timely Protective Action Recommendations (PARs) to the State Emergency Operations Center Manager while providing consistent PARs for the protection of the general public.

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

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

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

The State of Minnesota Joint Information Center (JIC) demonstrated the Target Capability of a JIC including the use of effective procedures to alert, notify and mobilize emergency personnel and activate facilities in a timely manner. Key personnel with leadership roles provided appropriate direction and control. Emergency information and instructions were presented to the general public and the news media in a timely manner.

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**

The Public Inquiry Hotline was efficiently managed and coordinated with other public information organizations within the Emergency Operations Center. Telephone operators had access to and used pre-scripted Frequently Asked Questions (FAQ) contained in the Public Inquiry Hotline Center Guide. They also utilized the 2012 Prairie Island Nuclear Generating Plant Emergency Planning Information Brochure, current news releases, media advisories, special news broadcasts, Emergency Alert System messages and Nuclear Accident Reporting System forms to respond to public inquiries. Rumors were also identified and resolved.

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

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

#### **3.3.1.6 State of Minnesota - Dakota County Emergency Operations Center - State Coordinator**

The State of Minnesota Regional Program Coordinator (RPC) located at Dakota County demonstrated the Target Capability of Emergency Management including the use of effective procedures to alert, notify and mobilize emergency personnel and activate facilities in a timely manner. The State RPC assigned to the Dakota County Emergency Operations Center demonstrated the capabilities of having sufficient equipment, maps, displays and other supplies to support operations.

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 - Goodhue County Emergency Operations Center - State Coordinator**

The State of Minnesota Regional Program Coordinator (RPC) located at Goodhue County demonstrated the Target Capability of Emergency Management including the use of effective procedures to alert, notify and mobilize emergency personnel and activate facilities in a timely manner. The State RPC assigned to the Goodhue County Emergency Operations Center demonstrated the capabilities of having sufficient equipment, maps, displays and other supplies to support operations.

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 Command Van**

The State of Minnesota Radiological Accident Deployment (RAD) Team Command Van demonstrated the Target Capability of Weapons of Mass Destruction (WMD) and Hazardous Materials (HazMat)/Radiological Emergency Preparedness (REP) Response and Decontamination by making and recording required ambient radiation measurements and collecting radioiodine and particulate samples. The RAD Team was equipped with a sampling

vehicle which carried the team and its equipment including maps, instrumentation, supplies, a communications radio and a cell phone. Communications were established and maintained with the Planning and Assessment Center (PAC) and both sampling instructions and results were communicated by radio. The RAD Team members were issued appropriate personal protective equipment, dosimetry, potassium iodide (KI), received appropriate training and instructions and demonstrated thorough knowledge of radiological sampling and exposure management procedures.

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

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

### **3.3.1.9 State of Minnesota - Radiological Accident Deployment Team #1**

The State of Minnesota Radiological Accident Deployment Team #1 (RAD) demonstrated the Target Capability of Weapons of Mass Destruction (WMD) and Hazardous Materials (HazMat)/Radiological Emergency Preparedness (REP) Response and Decontamination by making and recording required ambient radiation measurements and collecting radioiodine and particulate samples. The RAD Team was equipped with a sampling vehicle which carried the team and its equipment including maps, instrumentation, supplies, a communications radio and a cell phone. Communications were established and maintained with the Planning and Assessment Center (PAC) and both sampling instructions and results were communicated by radio. The RAD Team members were issued appropriate personal protective equipment, dosimetry, potassium iodide (KI), received appropriate training and instructions and demonstrated thorough knowledge of radiological sampling and exposure management procedures.

An issue was identified in which the Ludlum 2241 radiation instrument with the 44-6 beta-gamma detector attached was only operationally checked to setting #1 which measures activity. The RAD Team did not perform an operational check on setting # 4 to measure exposure rate, nor did the RAD Field Team standard operating guide (SOG) indicate that the 44-6 detector be checked on both settings. This issue was classified as an Area Requiring Corrective Action

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(ARCA) 50-12-1e1-A-10. This ARCA remains open.

An issue was identified regarding how RAD Field Teams measure exposure rates utilizing survey instruments. The RAD Field Team SOG indicates to RAD Field teams to set their survey instruments to measure activity. This issue was classified as an ARCA 50-12-3a1-A-11. This ARCA remains open.

An issue was identified in which RAD Field Team members estimated a sampling time which was not long enough to reach the target sampling volume of 10 cubic feet. This issue was classified as an ARCA 50-12-4a3-A-12. This ARCA remains open.

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: 1.e.1, 3.a.1, 4.a.3.

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

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

CONDITION: 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 SOG indicate that the 44-6 detector be checked on both settings.

POSSIBLE CAUSE: The RAD Field Team SOG did not indicate that the Ludlum 2241 radiation instrument with the 44-6 beta - gamma detector attached be operationally checked on both setting #1 to measure activity and setting #4 to measure exposure rate.

REFERENCE: Minnesota Radiological Emergency Preparedness RAD Field Team Standard Operating Guidelines (REP-1) NUREG-0654/FEMA-REP-1 H.10

EFFECT: The RAD Field Team SOG did not indicate that the Ludlum 2241 radiation

instrument with the 44-6 beta - gamma detector attached be operationally checked on setting #4 to measure exposure rate, and the field team members did not perform the check. It was unknown whether or not the instrument was functioning properly on setting #4.

RECOMMENDATION: Train RAD Field Teams to check the Ludlum 2241 radiation instrument with the 44-6 beta-gamma detector attached to be operationally checked on both settings #1 to measure activity and #4 to measure exposure rate.

SCHEDULE OF CORRECTIVE ACTION: Field Team procedures have been updated to read, "Compare the readings with the corresponding ranges on the calibration labels. If using the 44-6 probe, perform operational checks for both setting #1 (counts per minute) and setting #4 (dose rate), comparing each reading with the corresponding calibration label range." This will also be reinforced during subsequent trainings with the State of Minnesota RAD teams.

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

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

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

POSSIBLE CAUSE: Section O.a of the RAD Field Team SOGs instructs field team members to set their survey instrument to measure activity.

REFERENCE: Minnesota Radiological Emergency Preparedness RAD Field Team Standard Operating Guidelines (REP-1) NUREG-0654/FEMA-REP-1 I.8

EFFECT: Team members had no way of knowing if they had reached an area with an exposure rate equal to or greater than the turn-back value of 100 mR/hr or greater.

RECOMMENDATION: Revise Section O.a of the RAD Field Team SOGs to instruct field team members to set their survey instrument to measure exposure rate.

SCHEDULE OF CORRECTIVE ACTION: Electronic dosimeters (Canberra UltraRadiac) have been ordered and will be incorporated into the State of Minnesota RAD Field Team SOGs in 2013. These dosimeters will be set to alarm at both the turn-back dose limit of 1 R and the withdraw exposure rate of 100 mR/hr, providing further redundancies for the safety of the field team emergency workers. The State Field Team procedures will be updated and this will be reinforced during subsequent training with the State RAD teams.

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

CRITERION: 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.

CONDITION: 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 CFM 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.

POSSIBLE CAUSE: There was no procedure included in the SOGs to accurately calculate the length of sampling time needed to obtain the target sampling volume of 10 cubic feet.

REFERENCE: Minnesota Radiological Emergency Preparedness RAD Field Team



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**Standard Operating Guidelines, NUREG-0654/FEMA-REP-1 I.9.**

**EFFECT:** Because there was no procedure included in the SOGs to accurately calculate the length of sampling time needed to obtain the target sampling volume of 10 cubic feet, team members "estimated" an insufficient sampling time which resulted in a sampling volume of only 8.484 cubic feet.

**RECOMMENDATION:** Include a procedure in the SOGs to accurately calculate the length of sampling time needed to obtain the target sampling volume of 10 cubic feet and train team members on that procedure.

**SCHEDULE OF CORRECTIVE ACTION:** The State of Minnesota has addressed this issue by incorporating a chart into the Minnesota State RAD Team SOG. The chart will be used to ensure the minimum target sampling volume of 10 cubic feet is obtained.

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

**3.3.1.10 State of Minnesota - Radiological Accident Deployment Team #2**

The State of Minnesota Radiological Accident Deployment Team #2 (RAD) demonstrated the Target Capability of Weapons of Mass Destruction (WMD) and Hazardous Materials (HazMat)/Radiological Emergency Preparedness (REP) Response and Decontamination by making and recording required ambient radiation measurements and collecting radioiodine and particulate samples. The RAD Team was equipped with a sampling vehicle which carried the team and its equipment including maps, instrumentation, supplies, a communications radio and a cell phone. Communications were established and maintained with the Planning and Assessment Center (PAC) and both sampling instructions and results were communicated by radio. The RAD Team members were issued appropriate personal protective equipment, dosimetry, potassium iodide (KI), received appropriate training and instructions and demonstrated thorough knowledge of radiological sampling and exposure management procedures.

An issue was identified due to the Canberra MCB-2 survey meter, which was utilized during the demonstration, not having the required effective range of readings sticker affixed to it. This issue was classified as an ARCA 50-12-1e1-A-13. Per the Letter of Scheduled Corrective Actions received by DHS/FEMA Region V from the State of Minnesota dated October 12, 2012, the Canberra MCB-2 survey meter has received a calibration range label. This ARCA is closed.

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

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

ISSUE NO.: 50-12-1e1-A-13

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

CONDITION: The Canberra MCB-2 survey meters used by the State of Minnesota Radiological Accident Deployment (RAD) Field Teams for air sample filter and cartridge counting did not have the effective range of readings affixed to the meters. A source check was performed for operability but there was no acceptable range of readings available for comparison.

POSSIBLE CAUSE: The calibration was last performed on May 4, 2012 with a calibration sticker affixed to the instrument. There is no procedural requirement to compare check source readings to an acceptable range for the Canberra MCB-2 per the "Minnesota Radiological Emergency Preparedness Radiological Accident Deployment (RAD) Field Team Standard Operating Guidelines (SOGs) REP-1 Revision 26, Section K.1, Canberra MCB-2 Contamination Detector". There was no sticker affixed to the instrument indicating an acceptable range of readings.

REFERENCE: REP Program Manual dated April 2012 Criterion 1.e.1 – "In addition, instruments being used to measure activity must have a sticker affixed to their sides indicating the effective range of the readings. The range of readings documentation specifies the acceptable range of readings that the meter should indicate when it is response-checked using a standard test source."

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NUREG Criterion H.10.c – “Instruments being used to measure activity have accompanying documentation and/or sticker affixed to the instrument indicating the effective range of readings. The range of readings documentation indicates the acceptable range of readings that the meter should indicate when it is response-checked using a standard test source.”

EFFECT: The Canberra MCB-2 is used to measure activity in counts per minute from field air sample filters and cartridges. Activity levels not compared to a known source could be inaccurate, leading to incorrect values for air sample results. In addition, the Canberra MCB-2 is used to monitor State RAD Field Teams for contamination possibly resulting in inaccurate activity levels on persons and equipment.

CORRECTIVE ACTION DEMONSTRATED: Per the Letter of Scheduled Corrective Actions received by DHS/FEMA Region V from the State of Minnesota dated October 12, 2012, each State of Minnesota RAD Field Team will deploy to the field with a case that contains all of the radiological instrumentation they are issued: the Ludlum 2241-3, the 44-6, 44-2, and 133-7 probes and the Canberra MCB-2.

A covered source is affixed to the side of each Ludlum 2241-3 unit for the purpose of operational checks. The MCB-2 will be checked against the same source. The Ludlum and MCB-2 have been sent in for calibration as a set and each MCB-2 is receiving a calibration range label to be checked against the Ludlum source.

Additionally, each set of equipment is identified by colored tape. Each Ludlum unit, probe, MCB-2 and the case they live in is colored as a matched set. Thus each MCB-2 will be operationally checked against the source it was calibrated to ensuring it is within range.

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

### **3.3.1.11 State of Minnesota - Dakota County Emergency Operations Center - Minnesota State Police - Traffic and Access Control Point**

The State of Minnesota demonstrated the Target Capability of Emergency Public Safety and Security Response at Dakota County through an interview which included the distribution of dosimetry, emergency worker radiological exposure management and the capability to implement Traffic and Access Control Points (TACPs) within the 10-mile Emergency Planning Zone (EPZ). During the interview, the Trooper demonstrated knowledge of the provisions of the Emergency Operations Plan related to the establishment of TACPs in addition to the use of the appropriate dosimetry procedures, documentation and communication equipment including portable radios, cell phones and mobile data terminals. This included the provision of dosimetry and the ability to manage emergency worker radiological exposure including the decision to implement potassium iodide (KI).

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

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

### **3.3.1.12 State of Minnesota - Dakota County Emergency Operations Center - Minnesota State Police - DCO Briefing**

Dakota County demonstrated the Target Capability of Emergency Public Safety and Security Response at Dakota County through an interview which included the distribution of dosimetry and emergency worker radiological exposure management within the 10-mile Emergency Planning Zone (EPZ). Appropriate dosimetry, record-keeping documents and information on how to manage each emergency workers dose was discussed by the Dosimetry Control Officer (DCO). Equipment requiring calibration and testing was within proper dates. The DCO provided instructions on potassium iodide (KI) and instructions on when to ingest.

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

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

#### **3.3.1.13 State of Minnesota - Cottage Grove Emergency Medical service - Medical Service - Transportation**

The State of Minnesota and the City of South Washington Ambulance Service demonstrated the Target Capability of Triage and Pre-Hospital Treatment of Contaminated Patients including the use of effective procedures to alert, notify and mobilize emergency personnel and activate in a timely manner. The City of South Washington Ambulance Service had adequate resources and trained personnel to provide pre-hospital medical services to contaminated injured individuals. This included the provision of emergency worker radiological exposure. There were redundant communication systems available and both primary and back-up systems were used effectively during this demonstration.

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

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

#### **3.3.1.14 State of Minnesota - Regions Hospital - Medical Service - Facility**

The State of Minnesota Regions Hospital demonstrated the Target Capability of Triage and Treatment of Contaminated Patients including the use of effective procedures to alert, notify and mobilize emergency personnel and activate facilities in a timely manner. Regions Hospital had proper space, resources and trained personnel to monitor decontaminate and provide medical services to contaminated injured individuals. This included the provision of emergency worker

radiological exposure. There were redundant communication systems available and both primary and back-up systems were used effectively during this exercise.

An issue was identified in which the Charge Nurse did not inform the Radiation Safety Responders of their turn-back value or their administrative control limit. This issue was classified as a Planning Issue 50-12-3a1-P-09.

The Planning Issue will remain open pending the submittal of an update to the 2012 Regions Hospital Emergency Operations Plan.

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

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

ISSUE NO.: 50-12-3a1-P-09

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

CONDITION: The Charge Nurse did not inform the Radiation Safety Responders of their turn-back value or their administrative control limit. These values are not described in the Regions Hospital Radiation Decontamination Plan.

POSSIBLE CAUSE: Plans and procedures did not contain turn-back value instructions or dosimetry briefing instructions.

REFERENCE: NUREG - 0654; Planning Standard K.

EFFECT: Unnecessary radiological exposure to emergency workers.

**RECOMMENDATION:** Update the Regions Hospital Radiation Decontamination Plan.

**SCHEDULE OF CORRECTIVE ACTION:** The Regions Hospital plans and procedures have been updated to list the turn-back values and administration levels. This planning issue will also be covered in the annual training that is conducted within Regions Hospital.

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

#### **3.3.1.15 State of Minnesota - Cottage Grove Fire Station - Evacuee/Emergency Worker Monitoring and Decontamination**

The State of Minnesota and the Cottage Grove Fire Station Evacuee Monitoring and Decontamination Center demonstrated the Target Capability of Monitoring and Decontaminating Evacuees including the use of effective procedures to alert, notify and mobilize emergency personnel and activate facilities in a timely manner.

An issue was identified regarding how decontamination of evacuees was performed at the Cottage Grove Reception Center. Section 6.10 of the Cottage Grove Reception Center standard operating procedures (SOP) instruct decontamination personnel to decontaminate an evacuee by utilizing a decontamination process where the evacuee has their outer clothing spot decontaminated utilizing tape and wet cloth wipes. This issue was classified as a Planning Issue 50-12-6a1-P-09.

The Planning Issue will remain open pending the submittal of an update to the 2012 Cottage Grove Reception Center (SOP).

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

- a. MET: None
- b. AREAS REQUIRING CORRECTIVE ACTION: None
- c. DEFICIENCY: None

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d. PLAN ISSUES: 6.a.1.

ISSUE NO.: 50-12-6a1-P-07

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

CONDITION: Decontamination personnel had the simulated contaminated evacuee attempt to decontaminate spot contamination on his outer clothing with the use of tape and wet cloth wipes.

POSSIBLE CAUSE: Section 6.10 of the Cottage Grove Reception Center SOPs for Evacuee Decontamination, instructs decontamination personnel to have the contaminated evacuee attempt to decontaminate spot contamination on his/her outer clothing with the use of tape and wet cloth wipes, if necessary.

REFERENCE: Cottage Grove Reception Center Standard Operation Procedures (SOPs) for Evacuee Decontamination NUREG-0654/FEMA-REP-1 K.5.b

EFFECT: The use of the wet cloth wipes on a porous material such as clothing could result in contamination of the evacuee's skin under that clothing.

RECOMMENDATION: Revise the Cottage Grove Reception Center SOPs for Evacuee Decontamination to have contaminated evacuees remove their outer contaminated clothing instead of attempting to decontaminate it.

SCHEDULE OF CORRECTIVE ACTION: The Department of Human Services is updating decontamination procedures to remove the use of wet wipes on porous materials.

e. NOT DEMONSTRATED: None

f. PRIOR ISSUES - RESOLVED: None

g. PRIOR ISSUES - UNRESOLVED: None



### **3.3.1.16 State of Minnesota - Cottage Grove Fire Station - Evacuee Registration**

The Cottage Reception Center (RC) Evacuee registration station was stocked with sufficient supplies and equipment to perform all required tasks. The RC Manager provided effective direction and control of the staff while the exercise participants demonstrated the proper use of personal protective equipment, dosimetry and redundant communications systems. Simulated Evacuees were effectively controlled, monitored for radiological contamination and processed in accordance with appropriate procedures. Six evacuees were processed through the appropriate registration stations and then transitioned to the Congregate Care Center.

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

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

### **3.3.1.17 State of Minnesota - Cottage Grove Fire Station - Evacuee Monitoring and Decontamination of Vehicles**

The State of Minnesota and the Cottage Grove Fire Station demonstrated the Target Capability of Monitoring and Decontaminating of Evacuees and their vehicles including the use of effective procedures to alert, notify and mobilize emergency personnel and activate facilities in a timely manner. The Cottage Grove Fire Department had adequate resources and trained personnel to provide Evacuee Monitoring and Vehicle Monitoring and Decontamination. There were redundant communication systems available and both primary and back-up systems were used effectively during the demonstration.

An issue was identified due to the Canberra MiniSentry Transportable Gamma Portal Monitors at the Cottage Grove Reception Center receiving source checks with a 10  $\mu$ Ci source. This issue was classified as an ARCA 50-12-6a1-A-08. Per the Letter of Scheduled Corrective Actions received by DHS/FEMA Region V from the State of Minnesota dated October 12, 2012, the Department of Human Services removed the 10  $\mu$ Ci and since purchased 1  $\mu$ Ci check sources. This ARCA is closed.

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

- a. MET: 6.a.1.
- b. AREAS REQUIRING CORRECTIVE ACTION: 6.a.1.

ISSUE NO.: 50-12-6a1-A-08

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

CONDITION: The Canberra MiniSentry Transportable Gamma Portal Monitors used at the Cottage Grove Reception Center for evacuee vehicle screening received source checks with a 10  $\mu\text{Ci}$  Cs-137 source. The 10  $\mu\text{Ci}$  Cs-137 check source was provided by the manufacturer for the usage of calibration, not operational checks.

POSSIBLE CAUSE: The participants stated that the 10  $\mu\text{Ci}$  Cs-137 check source was supplied by the manufacturer for use with the vehicle portal monitor. The source was labeled with an attached sheet from the manufacturer, Canberra. In addition, a posted job aid for Vehicle Portal Monitoring stated to check the portal monitor with the 10  $\mu\text{Ci}$  Cs-137 source.

REFERENCE: Current List of Frequently Asked Questions, Updated: June 29, 2012

FEMA-REP-22, October 2002, Contamination Monitoring Guidance for Portable Instruments Used for Radiological Emergency Response to Nuclear Power Plant Accidents. The greatest risk of health effects from fixed contamination on vehicles, equipment, and other possessions is skin cancer from beta radiation in situations where skin may be in contact with a contaminated surface for extended periods of time (e.g., auto seats and steering wheel. Section VI of the Background Information Document concludes that during the emergency phase of a nuclear power plant accident, an initial concentration of 0.0085  $\mu\text{Ci}/\text{cm}^2$  of fixed contamination on vehicle seats represents a threshold for detection and measurement. Concentrations twice as high, or more, could be permitted on other surfaces (e.g., exterior of vehicles) where skin would not be exposed at close range for extended periods.

EFFECT: The sensitivity of the Canberra MiniSentry Transportable Gamma Portal Monitors used for vehicle screening was not demonstrated when using a 10  $\mu$ Ci Cs-137 source.

CORRECTIVE ACTION DEMONSTRATED: Per the Letter of Scheduled Corrective Actions received by DHS/FEMA Region V from the State of Minnesota on October 12, 2012, the Department of Human Services removed the 10  $\mu$ Ci check sources and purchased new 1  $\mu$ Ci sources to be used as check sources for the Canberra MiniSentry Portal Monitors.

- 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 Dakota County - Initial Warning Point**

Dakota County demonstrated the Target Capability of Emergency Operations Center Management at the Initial Warning Point located in the Dakota Communications Center (DCC). The dispatchers demonstrated the ability to alert, notify and mobilize emergency personnel in a timely manner. The dispatchers were familiar with the nuclear incident notification procedures, demonstrated the redundant communication systems available at the DCC and used both primary and backup systems effectively during the demonstration.

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 Dakota County - Emergency Operations Center

Dakota County demonstrated the Target Capability of Emergency Operations Center Management including the use of effective procedures to alert, notify and mobilize emergency personnel and activate facilities in a timely manner. The Dakota County Alternate Emergency Operations Center (AEOC) demonstrated sufficient multi-agency coordination to respond to an incident at the Prairie Island Nuclear Generating Plant through timely activation and efficient operations throughout the demonstration. The EOC was managed efficiently and effectively while completing a full notification and activation resulting in staffing to an operational level. The Emergency Management Agency Director and County Administrator provided effective management, direction and control throughout the demonstration.

An issue was identified during the impediment to evacuation. Lack of communication and coordination with other EOC agencies occurred resulting in the incorrect evacuation route being selected. This issue was classified as an Area Requiring Corrective Action (ARCA) 50-12-3d2-A-06. This ARCA remains open.

A prior Planning Issue 50-10-1e1-P-03 was resolved during the demonstration.

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

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

ISSUE NO.: 50-12-3d2-A-06

CRITERION: Impediments to evacuation are identified and resolved.

CONDITION: Lack of communication and coordination with other EOC agencies resulted in the incorrect evacuation route being selected.

POSSIBLE CAUSE: Traffic and access control staff did not reference the Evacuation Routes to reroute traffic nor did they chose other routes that were available.

REFERENCE: NUREG 0654/FEMA REP-1 J.10.k

EFFECT: This could have resulted in evacuees being exposed to radioactive material.

RECOMMENDATION: Training on all aspects that need to be taken into account when evacuation routes are being determined.

SCHEDULE OF CORRECTIVE ACTION: Dakota County is working with the State of Minnesota to update and implement traffic impediment procedures. The updated traffic impediment procedures will also be focused on during annual training with Dakota County staff.

- c. DEFICIENCY: None
- d. PLAN ISSUES: None
- e. NOT DEMONSTRATED: None
- f. PRIOR ISSUES - RESOLVED: 1.e.1.

ISSUE NO.: 50-10-1e1-P-03

ISSUE: The RO packaged the expired DRD's with the other items maintained in the Dosimetry/KI kits to be distributed to the emergency workers at the Dakota County EOC. The supply of 26, Model 622, 0-20 R DRD's maintained at the Dakota County EOC contained 13 units that were expired, requiring recertification in 2008. There were also 3 units that had stickers marked failed on them. The Radiological Officer (RO) failed to check the expiration dates on the Dosimetry Corporation Model 622, 0-20 R, direct-reading dosimetry (DRD). The inventory of DRD's were not checked upon delivery, or prior to being packaged for distribution to Emergency Workers.

CORRECTIVE ACTION DEMONSTRATED: All DRDs were in calibration and the RO verified the dates on the DRDs prior to distribution. The Dosimeter log sheet had a space for recording the DRD calibration date.

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- g. PRIOR ISSUES - UNRESOLVED: None

### **3.3.2.3 Dakota County - Joint Information Center - Public Information Officer**

Dakota County demonstrated the Target Capability of Providing Emergency Public Information through the County Public Information Officer (PIO) at the Joint Information Center (JIC). The Dakota County PIO coordinated with counterparts in the JIC and the County EOC to provide timely, accurate and useful information to the public. The Dakota County PIO actively contributed to the production and distribution of 27 separate news releases.

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

### **3.3.2.4 Dakota County - Sheriff's Department -Traffic and Access Control Point**

Dakota County demonstrated the Target Capability of Emergency Public Safety and Security Response through interview which included the distribution of dosimetry, emergency worker radiological exposure management, and the capability to implement Traffic and Access Control Points (TACP) within the Prairie Island Nuclear Generating Plant 10-mile Emergency Planning Zone (EPZ). During the interview, the Deputy demonstrated adequate knowledge of the provisions of the Dakota County Radiological Emergency Response Plan related to the establishment of TACPs in addition to the use of appropriate dosimetry procedures, documentation and communications equipment including portable radios, cell phones and mobile data terminals.

Dakota County also demonstrated the Target Capability of Critical Resource Logistics and Distribution through the establishment of a Dosimetry Distribution Point at the Dakota County Alternate Emergency Operations Center (AEOC) in Rosemont, Minnesota. The Radiological Officer demonstrated the proper use of direct-reading and thermoluminescent dosimeters and conducted a briefing regarding the use of and record keeping requirements for personal

dosimetry kits including the proper procedures and documentation of the use of potassium iodide (KI).

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

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

#### **3.3.2.5 Goodhue County - Initial Warning Point**

The Goodhue County Initial Warning Point (IWP) demonstrated the Target Capability of an IWP including the use of effective procedures to alert, notify and mobilize emergency personnel and activate facilities in a timely manner. Dispatchers were familiar with their nuclear incident notification procedures. There were redundant communication systems available at the IWP and both primary and back-up systems were used effectively during the demonstration.

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

#### **3.3.2.6 Goodhue County - Emergency Operations Center**

The Goodhue County Emergency Operations Center (EOC) demonstrated the Target Capability of Emergency Operations Center Management including the use of effective procedures to alert, notify and mobilize emergency personnel and activate facilities in a timely manner. Goodhue County provided sufficient multi-agency coordination for an incident at the Prairie Island Nuclear Generating Plant by promptly activating and operating for the duration of the incident.

The EOC was managed efficiently and effectively while completing an activation, notification and staffing to an operational level. The EOC manager provided solid management, direction and control using briefings. This allowed the staff of the EOC to maintain a common operating picture and overall response to the event. The EOC manager coordinated with other jurisdictions including the State to make decisions and ensure that appropriate actions were taken to protect the health and safety of the public.

An issue was identified in which Permanent Record Dosimeters (PRDs), such as Thermoluminescent Dosimeters, were not issued to each of the EOC staff. This issue was classified as an ARCA 50-12-3a1-A-05. This ARCA remains open.

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.: 50-12-3a1-A-05

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

CONDITION: Permanent Record Dosimeters (PRDs), such as Thermoluminescent Dosimeters (TLDs), were not issued to each of the EOC staff. The EOC was located inside the PINGP 10-mile EPZ. While the Radiological Officer included PRDs in the three group dosimetry kits deployed throughout the EOC, he did not issue a PRD to each EOC participant, as required by the Extent-of-Play Agreement and current FEMA guidance.

POSSIBLE CAUSE: The Goodhue County Radiological Officer did not reference procedures.



REFERENCE: NUREG-0654/FEMA-REP-1, H.7., 10; J.10.a, b. e.; J.11; K.3.a.

REP PM, Part II-101, Section e. Quantities. "Each emergency worker with assignments where he or she may be exposed to radiation requires a PRD."

PINGP Extent-of-Play Agreement, dated 6/29/2012, Rev 2.3, Page 10 of 24, Goodhue County Dosimetry: "... TLDs will be worn by participants in the County Emergency Operations Center."

EFFECT: The failure to issue a PRD to each EOC participant could result in personnel receiving an indeterminate radiation dose and not having the capability of determining each individuals total exposure to radiation.

RECOMMENDATION: Goodhue County radiological protection staff should receive training concerning PRD emergency worker exposure control requirements and review and implement procedures and the Extent-of-Play Agreement regarding the issuance of permanent record dosimetry to EOC personnel.

SCHEDULE OF CORRECTIVE ACTION: Goodhue County is in the process of updating plans and procedures that will be completed by the end of the year and will discuss within the plan and procedures the option of when the EOC staff is to wear Thermoluminescent Dosimeters (TLD). Goodhue County will also ensure that the extent-of-play agreement is clear as to when and who will need to wear TLDs.

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

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### **3.3.2.7 Goodhue County - Joint Information Center - Public Information Officer**

The Goodhue County Public Information Officer in the State Joint Information Center (JIC) demonstrated the Target Capability of a JIC including the use of effective procedures to alert, notify and mobilize emergency personnel and activate facilities in a timely manner. Key personnel with leadership roles provided appropriate direction and control. Emergency information and instructions were presented to the public and the news media in a timely manner.

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

### **3.3.2.8 Goodhue County - Emergency Operations Center - Traffic and Access Control Point**

Goodhue County demonstrated the Target Capability of Emergency Public Safety and Security Response through interview which included the distribution of dosimetry, emergency worker radiological exposure management and the capability to implement Traffic and Access Control Points (TACP) within the Prairie Island Nuclear Generating Plant 10-mile Emergency Planning Zone (EPZ). During the interview, the Deputy demonstrated adequate knowledge of the provisions of the Goodhue County Radiological Emergency Response Plan related to the establishment of TACPs in addition to the use of appropriate dosimetry procedures, documentation and communications equipment including portable radios, cell phones and mobile data terminals.

Goodhue County also demonstrated the Target Capability of Critical Resource Logistics and Distribution through the establishment of a Dosimetry Distribution Point at the Goodhue County Emergency Operations Center. The Radiological Officer demonstrated the proper use of direct-reading and thermoluminescent dosimeters and conducted a briefing regarding the use of and record keeping requirements for personal dosimetry kits including the proper procedures and

documentation of the use of potassium iodide (KI).

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

- a. MET: 1.d.1, 1.e.1, 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 Goodhue County - Sheriff's Department - Route Alerting**

Goodhue County demonstrated the Target Capability of Emergency Public Safety and Security Response through interview and demonstration which included the distribution of dosimetry, emergency worker radiological exposure management and the capability to perform Exception Area Route Alerting by vehicle within the 10-mile Emergency Planning Zone (EPZ). A Goodhue County Sheriff's Deputy was dispatched by the Law Enforcement Officer in the Goodhue County EOC to conduct the notification for the exception area located in Goodhue County.

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

- a. MET: 1.d.1, 1.e.1, 3.a.1, 5.a.4.
- 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 Goodhue County - Red Wing and Hastings School District - Evacuation School**

Goodhue County demonstrated the Target Capability of Citizen Evacuation and Shelter-in-Place for school children through interview. The Red Wing School District representative described plans and procedures to safely evacuate students from the Prairie Island Generating Plant (PINGP) 10-mile Emergency Planning Zone (EPZ) and reunite them with their families. The school district demonstrated sufficient personnel, current contact information and

communications capabilities to notify families and guardians regarding how to reunite with evacuated students.

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

- a. MET: 1.d.1, 1.e.1, 3.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 Goodhue County - Red Wing Fire Department - Emergency Worker Monitoring/Decontamination**

Goodhue County and the Red Wing Fire Department demonstrated the Target Capability of Monitoring and Decontaminating Emergency Workers including the use of effective procedures to alert, notify and mobilize emergency personnel and activate facilities in a timely manner. The Red Wing Fire Department had adequate resources and trained personnel to provide Emergency Workers Monitoring and Decontamination. This included the provision of emergency worker radiological exposure. There were redundant communication systems available and both primary and back-up systems were used effectively during this demonstration.

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

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

### **3.3.2.12 Goodhue County - Red Wing Fire Department - Emergency Worker Monitoring and Decontamination of Equipment and Vehicles**

Goodhue County and the Red Wing Fire Department demonstrated the Target Capability of Monitoring and Decontaminating Emergency Workers Equipment and Vehicles including the use of effective procedures to alert, notify and mobilize emergency personnel and activate facilities in a timely manner. The Red Wing Fire Department had adequate resources and trained personnel to provide Emergency Worker Equipment and Vehicles Monitoring and Decontamination. This included the provision of emergency worker radiological exposure. There were redundant communication systems available and both primary and back-up systems were used effectively during this demonstration.

An issue was identified in which two of the Portal Monitors did not have calibration labels affixed to them reflecting a calibration due date and the date of the last calibration. This issue was classified as a Planning Issue 50-12-1e1-P-14.

The Planning Issue will remain open pending the submittal of an update to the 2012 Goodhue County Emergency Operations Plan.

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

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

ISSUE NO.: 50-12-1e1-P-14

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

CONDITION: An inspection of the two portal monitors revealed that a calibration label was not affixed to each portal monitor showing the date of the last calibration date and the due date of the next calibration. The April 2012 Radiological Emergency Preparedness Program Planning Manual, II-58, "indicates that each monitor will be labeled with the date of the last operational check and date of the next calibration."

POSSIBLE CAUSE: The manufacturer's calibration information was not posted on or with the portal monitor.

REFERENCE: NUREG-0654 8.10 April 2012 REP Program Planning Manual, page II-58.

EFFECT: The failure to post calibration information puts in question the accuracy monitoring results.

RECOMMENDATION: Plans and procedures should be revised to require portal monitor calibration information either supplied by the manufacturer (for new equipment) or subsequent current recalibration information to be posted on or with the equipment.

SCHEDULE OF CORRECTIVE ACTION: A calibration sticker will be affixed to the portal monitors at the emergency worker decontamination site and the portal monitors have been included in the annual schedule for calibration and will be operationally checked as required.

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

### **3.3.3 Wisconsin Jurisdictions**

#### **3.3.3.1 State of Wisconsin - State Warning Center #2 - Initial Warning Point**

The State of Wisconsin Emergency Management (WEM) Administrative Office demonstrated the Target Capability of Emergency Operations Center Management at State Warning Center #2. The WEM Duty Officer used appropriate procedures to accurately record information received from the Prairie Island Nuclear Generating Plant relayed that information to the WEM Senior Duty Officer. A variety of primary and back-up communications systems were demonstrated during the demonstration.

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

### **3.3.3.2 State of Wisconsin - Emergency Operations Center**

The State of Wisconsin State Emergency Operations Center (SEOC) demonstrated the Target Capability of Emergency Operations Center Management including the use of effective procedures to alert, notify and mobilize emergency personnel and activate facilities in a timely manner. The SEOC provided sufficient multi-agency coordination in response to the simulated incident at the Prairie Island Nuclear Generating Plant (PINGP) by promptly activating and operating for the duration of the exercise. The SEOC was managed efficiently and effectively, completed a full activation and notification and was staffed to a fully operational level. The SEOC provided timely and effective management and direction and control through the use of briefings, information posted on SEOC monitors and the E-Sponder system to track, organize and maintain a chronological record of events. The SEOC coordinated with the risk counties and other state agencies to synchronize decision making and dissemination of public information regarding the situation at the PINGP.

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, 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

### **3.3.3.3 State of Wisconsin - State Emergency Operations Center - Radiological Coordinator**

The State of Wisconsin State Radiological Coordinator (SRC) demonstrated the Target Capability of Emergency Operations Center Management by promptly activating and providing multi-agency coordination for the duration of the Radiological Emergency Preparedness Exercise at the Prairie Island Nuclear Generating Plant (PINGP). The SRC provided timely and effective management and direction and control through the use of briefings, information posted on SEOC monitors and the E-Sponder system to track, organize and maintain a chronological record of events. The SRC coordinated with the risk counties and other state agencies to synchronize decision making and dissemination of public information regarding the situation at the PINGP.

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.b.1, 4.a.2, 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

### **3.3.3.4 State of Wisconsin - Forward Operations Center - Mobile Radiological Laboratory**

The Field Response Manager (FRM) demonstrated the Target Capability to set up and operate the Forward Operations Center/Mobile Radiological Laboratory (FOC/MRL). The State Radiological Coordinator ordered the FRM to activate the FOC/MRL and to support the Restricted Area Field Teams.

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



### **3.3.3.5 State of Wisconsin - Restricted Area Field Team #1**

The State of Wisconsin Restricted Area Field Team (RAFT) #1 demonstrated the Target Capability of Weapons of Mass Destruction (WMD) and Hazardous Materials (HazMat)/Radiological Emergency Preparedness (REP) Response and Decontamination by making and recording required ambient radiation measurements and collecting radioiodine and particulate samples. The RAFT #1 was equipped with a sampling vehicle which carried the team and its equipment including maps, instrumentation, supplies, a communications radio and a cell phone. Communications were established and maintained with the FOC/MRL and both sampling instructions and results were communicated by radio. The RAFT #1 members were issued appropriate personal protective equipment, dosimetry, potassium iodide (KI), received appropriate training and instructions and demonstrated thorough knowledge of radiological sampling and exposure management procedures.

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

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

### **3.3.3.6 State of Wisconsin - Restricted Area Field Team #2**

The State of Wisconsin Restricted Area Field Team (RAFT) #2 demonstrated the Target Capability of Weapons of Mass Destruction (WMD) and Hazardous Materials (HazMat)/Radiological Emergency Preparedness (REP) Response and Decontamination by making and recording required ambient radiation measurements and collecting radioiodine and particulate samples. The RAFT #2 was equipped with a sampling vehicle which carried the team and its equipment including maps, instrumentation, supplies, a communications radio and a cell phone. Communications were established and maintained with the FOC/MRL and both sampling instructions and results were communicated by radio. The RAFT #1 members were issued appropriate personal protective equipment, dosimetry, potassium iodide (KI), received appropriate training and instructions and demonstrated thorough knowledge of radiological sampling and exposure management procedures.

An issue was identified in which there was a disparity of the location of the Radiological Field Sampling Point of F-4. This issue was classified as a Planning Issue 50-12-1e1-P-03.

The Planning Issue will remain open pending the submittal of an update to the 2012 State of Wisconsin Emergency Operations Plan.

There was a Planning Issue 33-11-1e1-P-05 from a previous demonstration that was not resolved.

The Planning Issue will remain open pending the submittal of an update to the 2012 State of Wisconsin Emergency Operations Plan.

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

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

ISSUE NO.: 50-12-1e1-P-03

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

CONDITION: According to the Wisconsin Radiological Incident Response Plan (Version 2.2), Volume 3, Appendix D, Section D.1 (Page 117), Sample Point F-4 was located at the intersection of County Road K and 860th Street (Trenton Road) at a distance of approximately 3.8 miles East South East (ESE) of Prairie Island Nuclear Generating Plant (PINGP). There is a second location where 860th Street intersects County Road K, approximately 0.8 miles northwest of Sample Point F-4. The second location is approximately 3.2 miles from PINGP.

POSSIBLE CAUSE: The planners responsible for selecting the sample points may have been unaware that there is a second location where 860th Street intersects County Road K.

REFERENCE: Wisconsin Radiological Incident Response Plan (Version 2.2), Volume 3, Appendix D, Section D.1 (Page 117)

EFFECT: Using radiation measurements or sampling results from a location different than the one reported could result in difficulties in validating dose projections, or possibly even result in protective action recommendations based on inaccurate information.

RECOMMENDATION: The State of Wisconsin should consider implementing one or more of the following recommendations: revise the list of sample points to include a note making teams aware of the second location; select a new location for sample Point F-4 when the plans are reviewed and revised; review maps for any other similar instances of multiple locations with similar descriptions, provide more detailed maps showing the names of other roads; and provide field teams with global positioning system (GPS) devices (with sample point locations preprogrammed before their use in the field).

SCHEDULE OF CORRECTIVE ACTION: The State of Wisconsin will work with Pierce County to find an alternate sampling point location or update the existing F4 sampling site in the 2013 Radiological Incident Response Plan.

- e. NOT DEMONSTRATED: None
- f. PRIOR ISSUES - RESOLVED: None
- g. PRIOR ISSUES - UNRESOLVED: 1.e.1.

ISSUE NO.: 33-11-1e1-P-05

ISSUE: Restricted Area Field Team # 2 did not record background measurements in a clean area for either the Fluke Victoreen 451B Ion Chamber Survey Meter or the Ludlum Model 12 Ratemeter with Model 44-9 Probe. During interview, team members were unable to recall what the original or baseline background readings had been.

REASON UNRESOLVED: This was not corrected during the updated plan

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submittal dated February 2012.

SCHEDULE OF CORRECTIVE ACTION: This Planning Issue will be addressed in the 2013 Radiological Incident Response Plan.

#### **3.3.3.7 State of Wisconsin - State Emergency Operations Center/Joint Information Center - Public Information Officer**

The State of Wisconsin Joint Information Center demonstrated the Target Capability of Providing Emergency Public Information through the County Public Information Officers (PIOs) at the Joint Information Center (JIC). State and County PIOs coordinated with their counterparts in the JIC, State and County EOCs to provide timely, accurate and useful information to the public. The JIC is well designed and serves as an efficient facility and was equipped with a variety of communications systems that facilitated maintaining good situational awareness. The Wisconsin Emergency Management staff provided leadership to the State and local components of the JIC.

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

- a. MET: 1.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

#### **3.3.3.8 State of Wisconsin - Public Inquiry Hotline Center - Joint Information Backup**

The Telephone Response Center (TRC) was efficiently managed and coordinated with other public information organizations within the Joint Information Center (JIC). Telephone operators had access to and used pre-scripted Frequently Asked Questions (FAQ) contained in the JIC Telephone Response Center Contact Guide and the 2012 Prairie Island Nuclear Generating Plant Emergency Planning Information Brochure, current news releases, media advisories, special news broadcasts, Emergency Alert System messages and Nuclear Accident Reporting System forms to respond to public inquiries and to identify and resolve rumors.

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

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

#### **3.3.3.9 State of Wisconsin - Elmwood High School - Evacuee/Emergency Worker Monitoring**

The State of Wisconsin Elmwood High School Evacuee/Emergency Worker Monitoring demonstrated the Target Capability of Monitoring Evacuees and Emergency Workers including the use of effective procedures to alert, notify and mobilize emergency personnel and activate facilities in a timely manner. Elmwood High School had adequate resources, and trained personnel to provide Evacuee/Emergency Worker Monitoring. This included the provision of worker radiological exposure. There were redundant communication systems available and both primary and back-up systems were used effectively during this exercise.

An issue was identified regarding the lack of a check source reading sticker affixed to the Eberline E-120 survey meter. The issue was classified as an Area Requiring Corrective Action (ARCA) 50-12-1e1-A-04.

Per the Letter of Scheduled Corrective Actions received by DHS/FEMA Region V from the State of Wisconsin dated October 12, 2012, the stickers with the required check source reading have been placed on the Eberline E-120 survey meters that are used to compare the instrument readings within +/-20% value of the check source reading. This ARCA is closed.

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

- a. MET: 1.c.1, 1.d.1, 1.e.1, 3.a.1, 6.a.1.
- b. AREAS REQUIRING CORRECTIVE ACTION: 1.e.1.

ISSUE NO.: 50-12-1e1-A-04

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

CONDITION: The Eberline E-120 survey meters that the Elmwood Reception Center (RC) staff used for monitoring for contaminants of evacuees and emergency workers were setup and operationally checked by the Radiological Officer and his assistant. The meters were setup using the Pierce County RC plan, however, the plan calls for a check source to be used for comparing readings as indicated on the source. The meters all had check sources attached, but did not have the required check source reading on a sticker affixed to each instrument to compare the instrument readings within the +/- 20% value of the check source reading.

POSSIBLE CAUSE: The State of Wisconsin provides the instruments to the RC and also is responsible for annual calibration of the instruments. The instruments were last calibrated on 8/2011. The calibration label was affixed, but the Cs137 check source reading label was not placed on the instrument or provided for each individual source.

REFERENCE: REP Program Manual dated April 2012 Criterion 1.e.1 - "In addition, instruments being used to measure activity must have a sticker-affixed to their sides indicating the effective range of the readings. The range of readings documentation specifies the acceptable range of readings that the meter should indicate when it is response-checked using a standard test source." NUREG Criterion H.10.c - "Instruments being used to measure activity have accompanying documentation and/or a sticker affixed to the instrument indicating the effective range of readings. The range of readings documentation indicates the acceptable range of readings that the meter should indicate when it is response-checked using a standard test source."

EFFECT: The accuracy of the readings on the instruments to determine presence of contamination on the monitored personnel could have been suspect. The instrument readings were not compared to a known source and contamination above the existing background levels may have been missed. If the instrument was source verified, the activity levels shown on the meter would have been accurate for showing contamination readings greater than 100 counts per minute above background. The

patient could have been properly decontaminated and not have been at risk of further contamination to themselves or others.

**CORRECTIVE ACTION DEMONSTRATED:** Per the Letter of Scheduled Corrective Actions received by DHS/FEMA Region V from the State of Wisconsin dated October 12, 2012, the stickers with the required check source reading have been placed on the Eberline E-120 survey meters that are used to compare the instrument readings within +/-20% value of the check source reading. This ARCA is closed.

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

#### **3.3.3.10 State of Wisconsin - Elmwood High School - Evacuee/Emergency Worker Decontamination**

The State of Wisconsin Elmwood High School Evacuee/Emergency Worker Decontamination demonstrated the Target Capability of Decontaminating Evacuees and Emergency Workers including the use of effective procedures to alert, notify and mobilize emergency personnel and activate facilities in a timely manner. Elmwood High School had adequate resources, and trained personnel to provide Evacuee/Emergency Worker Decontaminating. This included the provision of worker radiological exposure. There were redundant communication systems available and both primary and back-up systems were used effectively during this demonstration.

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

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

### **3.3.3.11 State of Wisconsin - Elmwood High School - Evacuee Monitoring and Decontamination of Vehicles**

The State of Wisconsin and the Elmwood Fire Department demonstrated the Target Capability of Monitoring and Decontaminating of Evacuee Vehicles including the use of effective procedures to alert, notify and mobilize emergency personnel and activate facilities in a timely manner. The Elmwood Fire Department had adequate resources, and trained personnel to provide the Monitoring and Decontamination of Evacuee Vehicles. This included the provision of worker radiological exposure. There were redundant communication systems available and both primary and back-up systems were used effectively during this demonstration.

A prior Area Requiring Corrective Action (ARCA) 50-10-3a1-A-02 was resolved during the demonstration.

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

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

ISSUE NO.: 50-10-3a1-A-02

ISSUE: Approximately 22 firefighters were assigned to four monitoring and decontamination teams at the ESRC. The four teams were the Evacuee and Emergency Worker Monitoring Team (EEWMT), the Evacuee and Emergency Worker Decontamination Team (EEWDT), the Evacuee and Emergency Vehicle Monitoring Team, (EEVMT), and the Evacuee and Emergency Vehicle Decontamination Team (EEVDT).

At 1920 hours, the four teams reported to the Dosimetry Station in the ESRC for a briefing on and issuance of a dosimetry kit. The Pierce County Radiological Officer and an Assistant conducted the briefings and issuances. The dosimetry kit provided to each firefighter contained one 0-200 mR Direct-Reading Dosimeter (DRD), one



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Thermoluminescent Dosimeter (TLD), one Dosimeter Record Card, and one Dosimeter Information Card.

Individual briefings were given. The use of a briefing checklist was not observed. The briefing on dosimetry included zeroing DRDs, reading the Dosimetry Information Card, checking the DRD every 30 minutes, recording DRD readings on the Dosimeter Record Card, the exposure limit of 3 rem, the wearing of the DRD and TLD on the outside of the outer garment at chest level, and returning the dosimetry and forms to the Dosimetry Station upon completion of the mission or until directed to do otherwise. The briefings and issuances were completed by 1950 hours.

In the course of the demonstration, two to four members from each of the four teams were questioned regarding their understanding of dosimetry. With one exception, those questioned had a basic knowledge of the purpose, use and disposition of their dosimetry. The exception was that no member of three of the four teams (the EEWMT, the EEVMT, and the EEVDT) questioned knew his or her exposure limit.

The extent-of-play agreement for criterion 6.a.1 stated that all Pierce County monitoring and decontamination workers would work under the direction of State staff and should be evaluated as part of the State of Wisconsin's response. As such, and in accordance with paragraph 2.3.2 on page 9 of Volume 4 of the Wisconsin Department of Health Services (DHS) Radiological Incident Response Plan (RIRP), Version 2.1, January 10, 2010, the State exposure limit is 150 mR for persons wearing only a TLD and a 0-200 mR DRD.

Not only were the monitoring and decontamination workers incorrectly briefed on an exposure limit of 3 rem, and the Dosimetry Information Card issued listed the exposure limit as 3 rem, their 0-200R DRD was not capable of reading 3 Rem. The instrument can only read Roentgens.

Approaching the end of the demonstration, one worker radioed the Dosimetry Station and asked what the exposure limit was. The response given, 2 rem that can be increased to 3 rem, was incorrect.

**CORRECTIVE ACTION DEMONSTRATED:** At 2004 hours, an interview was

conducted separately with two workers at the RC concerning their dosimetry. Both workers knew the differences between their DRD and the PRD. When questioned concerning their exposure limit on the DRD, they both knew that it was 150 mR. They also knew that if their dosimeter reading increased by 20 mR between 30 minute readings, to notify the RO and await further guidance. This interview corrects the previous 2010 issue Issue Number 50-10-3a1-A-02.

g. PRIOR ISSUES - UNRESOLVED: None

#### **3.3.3.12 State of Wisconsin - Sacred Heart Hospital - Medical Service - Facility**

The Sacred Heart Hospital demonstrated the appropriate facilities, equipment, supplies and trained personnel to provide radiological monitoring, urgent medical care, and decontamination to contaminated individuals injured during an incident at the Prairie Island Nuclear Generating Plant. Sacred Heart Hospital demonstrated redundant communications systems and effective patient management between the Emergency Department (ED) and ambulances. The Radiation Emergency Area (REA) was fully stocked with all appropriate personal protective equipment and dosimetry, radiological survey equipment and contamination control supplies. The Radiation Safety Office issued appropriate dosimetry and managed radiological exposure to emergency workers in accordance with the plans and procedures. The Sacred Heart Hospital Radiological Disaster Plan states that life-threatening emergencies always have priority over radioactive contamination concerns and the ED staff demonstrated a thorough understanding of this priority.

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

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

### **3.3.4 Risk Jurisdictions**

#### **3.3.4.1 Pierce County- Elmwood Ambulance Service - Medical Service - Transportation**

The State of Wisconsin and the Elmwood Ambulance Service demonstrated the Target Capability that they have the appropriate space, adequate resources and trained personnel to provide transport, monitoring, decontamination and medical services to contaminated injured individuals. The Elmwood Ambulance Service demonstrated the capability to transport contaminated injured individuals.

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

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

#### **3.3.4.2 Pierce County - Sheriff's Dispatch Center - Initial Warning Point**

The Pierce County Initial Warning Point (IWP) demonstrated the Target Capability of an IWP including the use of effective procedures to alert, notify and mobilize emergency personnel and activate facilities in a timely manner. The IWP used effective procedures to alert, notify and mobilize emergency personnel and activate facilities in a timely manner. Dispatchers were familiar with their nuclear incident notification procedures. There were redundant communication systems available at the IWP and both primary and back-up systems were used effectively during this demonstration.

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

#### **3.3.4.3 Pierce County - Emergency Operations Center**

The Pierce County Emergency Operations Center (EOC) demonstrated the Target Capability of Emergency Operations Center Management including the use of effective procedures to alert, notify and mobilize emergency personnel and activate facilities in a timely manner. Pierce County provided sufficient multi-agency coordination for an incident at the Prairie Island Nuclear Generating Plant (PINGP) by promptly activating and operating for the duration of the incident. The EOC was managed efficiently and effectively while completing an activation, notification and staffing to an operational level. The EOC manager provided solid management and direction and control utilizing briefings. This allowed the staff of the EOC to maintain a common operating picture and overall response to the event. The EOC manager coordinated with other jurisdictions including the State to make decisions and ensure that appropriate actions were taken to protect the health and safety of the public.

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

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

#### **3.3.4.4 Pierce County - Emergency Operations Center - Traffic and Access Control Post**

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

data terminals.

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

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

#### **3.3.4.5 Pierce County - County Courthouse - Dosimetry Distribution Point**

Pierce County demonstrated the Target Capability of Critical Resource Logistics and Distribution through the establishment of a Dosimetry Distribution Point at the Pierce County Courthouse. The Radiological Officer and Public Health Nurse demonstrated the proper use of direct-reading and thermoluminescent dosimeters, calibration equipment and communications systems. Thorough briefings regarding the use of and record keeping requirements for personal dosimetry kits including the proper procedures and documentation of the use of potassium iodide (KI) were demonstrated.

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

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

### **3.3.4.6 Pierce County - Joint Information Center - Public Information Officer**

The Pierce County Public Information Officer (PIO) in the State Joint Information Center (JIC) demonstrated the Target Capability of a JIC including the use of effective procedures to alert, notify and mobilize emergency personnel and activate facilities in a timely manner. Key personnel with leadership roles provided appropriate direction and control. Emergency information and instructions were presented to the general public and the news media in a timely manner.

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

### **3.3.4.7 Pierce County - Elmwood High School - Congregate Care Center**

Pierce County and the American Red Cross Western Wisconsin Region (ARC) successfully demonstrated the Target Capability of communications equipment to support emergency operations during an out-of-sequence demonstration. The ARC successfully demonstrated that they had the resources to provide services and accommodations consistent with ARC planning guidelines. The ARC also had procedures to ensure that evacuees had been monitored for contamination decontamination efforts were completed as appropriate prior to entering the Congregate Care Center.

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

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

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- g. PRIOR ISSUES - UNRESOLVED: None

#### **3.3.4.8 Pierce County - Lindgren Learning Center - Evacuation School**

Pierce County demonstrated the Target Capability of Citizen Evacuation and Shelter-in-Place for school children through interview. The Ellsworth School District representative described plans and procedures to safely evacuate students from the Prairie Island Nuclear Generating Plant (PINGP) 10-mile Emergency Planning Zone (EPZ) and reunite them with their families. The school district demonstrated sufficient personnel, current contact information, emergency worker dosimetry and communications capabilities to notify families and guardians regarding how to reunite with evacuated students.

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

- a. MET: 1.d.1, 1.e.1, 3.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

#### **3.3.4.9 Pierce County - Elmwood Reception Center - Dosimetry Distribution Point**

Pierce County demonstrated the Target Capability of Critical Resource Logistics and Distribution through the establishment of a Dosimetry Distribution Point at the Elmwood Reception Center. The Radiological Officer (RO) demonstrated the proper use of direct-reading and thermoluminescent dosimeters, calibration equipment and communications systems. The RO conducted a thorough briefing regarding the use of and record keeping requirements for personal dosimetry kits including the proper procedures and documentation of the use of potassium iodide.

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

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

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



## SECTION 4: CONCLUSION

There was one Deficiency identified for the State of Minnesota during this exercise. On October 9, 2012, this Deficiency was successfully re-demonstrated. There were no deficiencies identified for the Counties of Goodhue and Dakota. There were five Areas Requiring Corrective Action (ARCAs) identified for the State of Minnesota. Per the Letter of Scheduled Corrective Actions received by DHS/FEMA Region V from the State of Minnesota dated October 12, 2012, two of the ARCAs were corrected. The State of Minnesota had three Planning Issues identified during this exercise. There was one ARCA and one Planning Issue identified for Goodhue County during this exercise. There was one ARCA identified for Dakota County during this exercise. There was one Planning Issue for Dakota County from a previous exercise, which was resolved.

The Deficiency 50-12-3d2-D-01 was identified for the State of Minnesota under Criterion 3.d.2- Impediments to evacuation are identified and resolved. Revised evacuation route selection was done without consideration of plume direction. It led to the re-routing of evacuating traffic into the plume instead of away from and around the plume. The lack of coordination when implementing the decision to revise evacuation routes lead to unnecessary increase in radiation exposure to the evacuating public. On October 9, 2012, this Deficiency was successfully re-demonstrated.

The first ARCA 50-12-6a1-A-08 for the State of Minnesota was identified under Criterion 6.a.1- The reception center has appropriate space, adequate resources and trained personnel to provide monitoring, decontamination and registration of evacuees. The Canberra MiniSentry Transportable Gamma Portal Monitors used at the Cottage Grove Reception Center for evacuees received source checks with a 10 micro curie CS-137 source. Per the Letter of Scheduled Corrective Actions received by DHS/FEMA Region V from the State of Minnesota dated October 12, 2012, the ARCA was corrected. This ARCA is closed.

The second ARCA 50-12-1e1-A-10 for the State of Minnesota was identified under Criterion 1.e.1-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 SOG indicate that the 44-6 detector be checked on both settings. This ARCA remains open.

The third ARCA 50-12-3a1-A-11 for the State of Minnesota was identified under Criterion 3.a.1-

OROs issue appropriate dosimetry, potassium iodide (KI) and procedures and manage radiological exposure to emergency workers in accordance with the plans/procedures. The turn-back value is based on exposure rate, but the SOGs instructs the field team members to set their survey instrument to measure activity. Team members had no way of knowing if they had reached an area with an exposure rate equal to or greater than the turn-back value of 100 mR/hr or greater. This ARCA remains open.

The fourth ARCA 50-12-4a3-A-12 for the State of Minnesota was identified under Criterion 4.a.3-Ambient radiation measurements are made and recorded at appropriate locations and radioiodine and particulate samples are collected. 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 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. This ARCA remains open.

The fifth ARCA 50-12-1e1-A-13 for the State of Minnesota was identified under Criterion 1.e.1-Equipment, maps, displays, monitoring instruments, dosimetry, potassium iodide and other supplies are sufficient to support emergency operations. The Canberra MCB-2 survey meters used by the State of Minnesota Radiological Accident Deployment (RAD) Field Teams for air sample filter and cartridge counting did not have the effective range of readings affixed to the meters. A source check was performed for operability but there was no acceptable range of reading available for comparison. Per the Letter of Scheduled Corrective Actions received by DHS/FEMA Region V from the State of Minnesota dated October 12, 2012, the ARCA was corrected. This ARCA is closed.

The first Planning Issue 50-12-5b1-P-02 for the State of Minnesota was identified under Criterion 5.b.1- Subsequent Emergency Information and Instructions for the Public and the Media. Evacuation directions for the Red Wing area in a pre-scripted news release describes traffic flow on Highway 55 heading in the east direction. Evacuation Route maps show traffic flow to the west. The general public could potentially be sent in the wrong direction during an evacuation. This Planning Issue remains open. This Planning Issue will be addressed in the 2013 Emergency Operations Plan submittal to DHS/FEMA Region V by the State of Minnesota.

This Planning Issue will be addressed in the 2013 Emergency Operations Plan submittal to DHS/FEMA Region V by the State of Minnesota.

The second Planning Issue 50-12-3a1-P-09 for the State of Minnesota was identified under Criterion 3.a.1-OROs issue appropriate dosimetry, KI and procedures and manage radiological exposure to emergency workers in accordance with plans/procedures. The Charge Nurse did not inform the Radiation Safety Responders of their turn-back value or their administrative control limit. These values are not described in the Regional Hospital Radiation Decontamination Documentation Plan. This Planning Issue remains open.

This Planning Issue will be addressed in the 2013 Emergency Operations Plan submittal to DHS/FEMA Region V by the State of Minnesota.

The third Planning Issue 50-12-6a1-P-07 for the State of Minnesota was identified under Criterion 6.a.1-Reception Center facilities have adequate space, adequate resources and trained personnel to provide monitoring and decontamination and registration of evacuees. Decontamination personnel had simulated contaminated evacuee attempt to decontaminate a spot of contamination on their outer clothing with the use of tape and wet wipe cloth wipes. The use of the wet cloth wipes on a porous material; such as clothing could result in contamination of evacuees' skin under the clothing. This Planning Issue remains open.

This Planning Issue will be addressed in the 2013 Emergency Operations Plan submittal to DHS/FEMA Region V by the State of Minnesota.

There was one ARCA and one Planning Issue identified for Goodhue County during this exercise.

The ARCA 50-12-3a1-A-05 for Goodhue County was identified under Criterion 3.a.1-OROs issue appropriate dosimetry, KI and procedures and manage radiological exposure to emergency workers in accordance with the plans/procedures. Permanent Record Dosimeters (PRDs), such as Thermoluminescent Dosimeters (TLDs) were not issued to each of the EOC Staff. The Emergency Operations Center (EOC) is located inside the Prairie Island Nuclear Generating Plant 10-mile Emergency Planning Zone (EPZ). While the Radiological Officer included PRDs in the three group dosimetry kits deployed throughout the EOC, he did not issue a PRD to each EOC participant, as required by the extent-of-play agreement and current FEMA guidance. This ARCA remains open.

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The Planning Issue 50-12-1e1-P-14 for Goodhue County was identified under Criterion 1.e.1—Equipment, maps, displays, monitoring instruments, dosimetry, potassium iodide and other supplies are sufficient to support emergency operations. An inspection of two portal monitors revealed that the calibration label was not affixed to each portal monitor showing the date of the last calibration. The April 2012 Radiological Emergency Preparedness Program Planning Manual, II-50, “requires each portal monitor to be labeled with the date of last operational check and the date of the next calibration.” Failure to post calibration information could compromise monitoring results. This Planning Issue remains open.

This Planning Issue will be addressed in the 2013 Emergency Operations Plan submittal to DHS/FEMA Region V by Goodhue County.

There was one ARCA identified for Dakota County during this exercise. There was one Planning Issue for Dakota County from a previous exercise, which was resolved.

The ARCA 50-12-3d2-A-06 for Dakota County was identified under Criterion 3.d.2—Impediments to evacuation are identified and resolved. Traffic evacuating Dakota County via Highway 61 was rerouted east into the EPZ. Lack of communication and coordination with other EOC agencies resulted in the incorrect evacuation route being selected. This ARCA remains open.

The Planning Issue 50-10-1e1-P-03 for Dakota County from a previous exercise under Criterion 1.e.1—Equipment, maps, displays, monitoring instruments, dosimetry, potassium iodide and other supplies are sufficient to support emergency operations. The Radiological Officer (RO) packaged the expired DRD’s with the other items maintained in the Dosimetry/KI Kits to be distributed to the emergency workers at the Dakota County EOC. Dakota County updated their Standard Operating Guidelines (SOG) for the RO to ensure all direct-reading dosimeters have current calibration dates properly marked on the device before issuing to emergency workers. This planning issue is closed.

There were no Deficiencies identified for the State of Wisconsin or Pierce County. The State of Wisconsin had one ARCA identified and one Planning Issue identified. Per the Letter of Scheduled Corrective Actions received by DHS/FEMA Region V from the State of Wisconsin dated October 12, 2012, the ARCA was corrected. The State of Wisconsin also had one Planning Issue from a previous exercise that remains unresolved. Pierce County had no issues identified.

The ARCA 50-12-1e1-A-04 for the State of Wisconsin was identified under Criterion 1.e.1-Equipment, maps, displays, monitoring, instruments, dosimetry, KI and other supplies are sufficient to support emergency operations. The Eberline E-120 survey meters that the Elmwood Reception Center (RC) staff used for monitoring for contaminants of evacuees and emergency workers were set up and operationally checked by the Radiological Officer and his assistant. The meters were setup using the Pierce County RC plan; however the plan calls for a check source to be used for comparing readings as indicated on the source. The meters all had check sources attached, but did not have the required check source readings on a sticker affixed to each instrument to compare the instrument readings within the +/- 20% value of the check source reading. Per the Letter of Scheduled Corrective Actions received by DHS/FEMA Region V from the State of Wisconsin dated October 12, 2012, the ARCA was corrected. This ARCA is closed.

The Planning Issue 50-12-1e1-P-03 for the State of Wisconsin was identified under Criterion 1.e.1-Equipment, maps, displays, monitoring, instruments, dosimetry, KI and other supplies are sufficient to support emergency operations. According to the Wisconsin Radiological Incident Response Plan (RIRP) (version 2.2), Volume 3, Appendix D, Section D.1, Sample Point F-4 was located at the intersection of County Road K and 860th Street (Trenton Road) at a distance of approximately 3.8 miles East/South East of the PINGP. There is another location where 860th Street intersects County Road K, approximately 0.8 miles Northwest of Sample Point F-4. The second location is approximately 3.2 miles from PINGP. This Planning Issue remains open.

This Planning Issue will be addressed in the 2013 RIRP plan submittal to DHS/FEMA Region V by the State of Wisconsin.

The Planning Issue 33-11-1e1-P-05 for the State of Wisconsin from a previous exercise which was not resolved was identified under Criterion 1.e.1-Equipment, maps, displays, monitoring, instruments, dosimetry, KI and other supplies are sufficient to support emergency operations. Restricted Area Field Team #2 (RAFT) did not record background measurements in a clean area for either the Fluke Victoreen 451B Ion Chamber Survey Meter or the Ludlum Model 12 Ratemeter with Model 44-9 Probe. During the interview, team members were unable to recall what the original or baseline background readings had been. There are no instructions in the Wisconsin Department of Health Radiological Incident Response Plan (RIRP) to record baseline instrument readings. This could cause the RAFT #2 teams to find themselves in a contaminated environment with no initial readings to reference.

This Planning Issue will be addressed in the 2013 RIRP plan submittal to DHS/FEMA Region V by the State of Wisconsin.

## APPENDIX A: IMPROVEMENT PLAN

<b>Issue Number: 50-12-3d2-A-06</b>		<b>Criterion: 3d2</b>
<b>ISSUE:</b> Lack of communication and coordination with other EOC agencies resulted in the incorrect evacuation route being selected.		
<b>RECOMMENDATION:</b> Training on all aspects that need to be taken into account when evacuation routes are being determined.		
<b>SCHEDULE OF CORRECTIVE ACTION:</b> Dakota County is working with the State of Minnesota to update and implement traffic impediment procedures. The updated traffic impediment procedures will also be focused on during annual training with Dakota County staff.		
<b>CORRECTIVE ACTION DESCRIPTION:</b> Dakota County is working with the State of Minnesota to update and implement traffic impediment procedures. The updated traffic impediment procedures will also be focused on during annual training with Dakota County staff.		
<b>CAPABILITY:</b> Emergency Operations Center Management	<b>PRIMARY RESPONSIBLE AGENCY:</b> Dakota County Emergency Operations Center	
<b>CAPABILITY ELEMENT:</b> Planning	<b>START DATE:</b>	
<b>AGENCY POC:</b> David Gisch 651-438-4703	<b>ESTIMATED COMPLETION DATE:</b>	

<b>Issue Number: 50-12-3a1-A-05</b>		<b>Criterion: 3a1</b>
<b>ISSUE:</b> Permanent Record Dosimeters (PRDs), such as Thermoluminescent Dosimeters (TLDs), were not issued to each of the EOC staff. The EOC was located inside the PINGP 10-mile EPZ. While the Radiological Officer included PRDs in the three group dosimetry kits deployed throughout the EOC, he did not issue a PRD to each EOC participant, as required by the Extent-of-Play Agreement and current FEMA guidance.		
<b>RECOMMENDATION:</b> Goodhue County radiological protection staff should receive training concerning PRD emergency worker exposure control requirements and review and implement procedures and the Extent-of-Play Agreement regarding the issuance of permanent record dosimetry to EOC personnel.		
<b>SCHEDULE OF CORRECTIVE ACTION:</b> Goodhue County is in the process of updating plans and procedures that will be completed by the end of the year and will discuss within the plan and procedures the option of when the EOC staff is to wear Thermoluminescent Dosimeters (TLD). Goodhue County will also ensure that the extent-of-play agreement is clear as to when and who will need to wear TLDs.		
<b>CORRECTIVE ACTION DESCRIPTION:</b> Goodhue County is in the process of updating plans and procedures that will be completed by the end of the year and will discuss within the plan and procedures the option of when the EOC staff is to wear Thermoluminescent Dosimeters (TLD). Goodhue County will also ensure that the extent-of-play agreement is clear as to when and who will need to wear TLDs.		
<b>CAPABILITY:</b> Responder Safety and Health	<b>PRIMARY RESPONSIBLE AGENCY:</b> Goodhue County Emergency Operations Center	
<b>CAPABILITY ELEMENT:</b> Systems and Equipment	<b>START DATE:</b>	
<b>AGENCY POC:</b> Diane Richter-Biwer 651-267-2639	<b>ESTIMATED COMPLETION DATE:</b>	

<b>Issue Number: 50-12-1e1-P-14</b>		<b>Criterion: 1e1</b>
<p><b>ISSUE:</b> An inspection of the two portal monitors revealed that a calibration label was not affixed to each portal monitor showing the date of the last calibration date and the due date of the next calibration. The April 2012 Radiological Emergency Preparedness Program Planning Manual, II-58, "indicates that each monitor will be labeled with the date of the last operational check and date of the next calibration."</p>		
<p><b>RECOMMENDATION:</b> Plans and procedures should be revised to require portal monitor calibration information either supplied by the manufacturer (for new equipment) or subsequent current recalibration information to be posted on or with the equipment.</p>		
<p><b>SCHEDULE OF CORRECTIVE ACTION:</b> A calibration sticker will be affixed to the portal monitors at the emergency worker decontamination site and the portal monitors have been included in the annual schedule for calibration and will be operationally checked as required.</p>		
<p><b>CORRECTIVE ACTION DESCRIPTION:</b> A calibration sticker will be affixed to the portal monitors at the emergency worker decontamination site and the portal monitors have been included in the annual schedule for calibration and will be operationally checked as required.</p>		
<p><b>CAPABILITY:</b> Responder Safety and Health</p>		<p><b>PRIMARY RESPONSIBLE AGENCY:</b> Goodhue County Emergency Operations Center</p>
<p><b>CAPABILITY ELEMENT:</b> Systems and Equipment</p>		<p><b>START DATE:</b></p>
<p><b>AGENCY POC:</b> Diane Richter-Biwer 651-267-2639</p>		<p><b>ESTIMATED COMPLETION DATE:</b></p>

<b>Issue Number: 50-12-6a1-P-07</b>		<b>Criterion: 6a1</b>
<p><b>ISSUE:</b> Decontamination personnel had the simulated contaminated evacuee attempt to decontaminate spot contamination on his outer clothing with the use of tape and wet cloth wipes.</p>		
<p><b>RECOMMENDATION:</b> Revise the Cottage Grove Reception Center SOPs for Evacuee Decontamination to have contaminated evacuees remove their outer contaminated clothing instead of attempting to decontaminate it.</p>		
<p><b>SCHEDULE OF CORRECTIVE ACTION:</b> The Department of Human Services is updating decontamination procedures to remove the use of wet wipes on porous materials.</p>		
<p><b>CORRECTIVE ACTION DESCRIPTION:</b> The Department of Human Services is updating decontamination procedures to remove the use of wet wipes on porous materials.</p>		
<p><b>CAPABILITY:</b> Weapons of Mass Destruction (WMD) and Hazardous Materials (HazMat) Response and Decontamination</p>		<p><b>PRIMARY RESPONSIBLE AGENCY:</b> State of Minnesota Emergency Operations Center</p>
<p><b>CAPABILITY ELEMENT:</b> Systems and Equipment</p>		<p><b>START DATE:</b></p>
<p><b>AGENCY POC:</b> Kevin Leuer 651-201-7406</p>		<p><b>ESTIMATED COMPLETION DATE:</b></p>



<b>Issue Number: 50-12-5b1-P-02</b>		<b>Criterion: 5b1</b>
<p><b>ISSUE:</b> Evacuation directions for the Red Wing area on pre-scripted News Releases describe traffic flow on Highway 55 as flowing to the east. Evacuation Route maps show traffic flow to the west.</p>		
<p><b>RECOMMENDATION:</b> Remedy this inconsistency by modifying either the evacuation News Releases or the mapping to reflect consistent traffic direction.</p>		
<p><b>SCHEDULE OF CORRECTIVE ACTION:</b> The evacuation route map has been updated to no longer have directional arrows on the map in this location.</p>		
<p><b>CORRECTIVE ACTION DESCRIPTION:</b> The evacuation route map has been updated to no longer have directional arrows on the map in this location.</p>		
<p><b>CAPABILITY:</b> Emergency Operations Center Management</p>	<p><b>PRIMARY RESPONSIBLE AGENCY:</b> State of Minnesota Emergency Operations Center</p>	
<p><b>CAPABILITY ELEMENT:</b> Planning</p>	<p><b>START DATE:</b></p>	
<p><b>AGENCY POC:</b> Kevin Leuer 651-201-7406</p>	<p><b>ESTIMATED COMPLETION DATE:</b></p>	

<b>Issue Number: 50-12-1e1-A-10</b>		<b>Criterion: 1e1</b>
<p><b>ISSUE:</b> 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 SOG indicate that the 44-6 detector be checked on both settings.</p>		
<p><b>RECOMMENDATION:</b> Train RAD Field Teams to check the Ludlum 2241 radiation instrument with the 44-6 beta-gamma detector attached to be operationally checked on both settings #1 to measure activity and #4 to measure exposure rate.</p>		
<p><b>SCHEDULE OF CORRECTIVE ACTION:</b> Field Team procedures have been updated to read, "Compare the readings with the corresponding ranges on the calibration labels. If using the 44-6 probe, perform operational checks for both setting #1 (counts per minute) and setting #4 (dose rate), comparing each reading with the corresponding calibration label range." This will also be reinforced during subsequent trainings with the State of Minnesota RAD teams.</p>		
<p><b>CORRECTIVE ACTION DESCRIPTION:</b> The field team procedures have been updated to read, "Compare the readings with the corresponding ranges on the calibration labels. If using the 44-6 probe, perform operational checks for both setting #1 (counts per minute) and setting #4 (dose rate), comparing each reading with the corresponding calibration label range." This will also be reinforced during subsequent trainings with the State of Minnesota RAD teams.</p>		
<p><b>CAPABILITY:</b> Responder Safety and Health</p>	<p><b>PRIMARY RESPONSIBLE AGENCY:</b> State of Minnesota Emergency Operations Center</p>	
<p><b>CAPABILITY ELEMENT:</b> Systems and Equipment</p>	<p><b>START DATE:</b></p>	
<p><b>AGENCY POC:</b> Kevin Leuer 651-201-7406</p>	<p><b>ESTIMATED COMPLETION DATE:</b></p>	

<b>Issue Number: 50-12-3a1-A-11</b>		<b>Criterion: 3a1</b>	
<p><b>ISSUE:</b> The turn-back value is based on exposure rate, but the SOGs instruct field team members to set their survey instrument to measure activity.</p>			
<p><b>RECOMMENDATION:</b> Revise Section O.a of the RAD Field Team SOGs to instruct field team members to set their survey instrument to measure exposure rate.</p>			
<p><b>SCHEDULE OF CORRECTIVE ACTION:</b> Electronic dosimeters (Canberra UltraRadic) have been ordered and will be incorporated into the State of Minnesota RAD Field Team SOGs in 2013. These dosimeters will be set to alarm at both the turn-back dose limit of 1 R and the withdraw exposure rate of 100 mR/hr, providing further redundancies for the safety of the field team emergency workers. The State Field Team procedures will be updated and this will be reinforced during subsequent training with the State RAD teams.</p>			
<p><b>CORRECTIVE ACTION DESCRIPTION:</b> Electronic dosimeters (Canberra UltraRadic) have been ordered and will be incorporated into the State of Minnesota RAD Field Team SOGs in 2013. These dosimeters will be set to alarm at both the turn-back dose limit of 1 R and the withdraw exposure rate of 100 mR/hr, providing further redundancies for the safety of the field team emergency workers. The State Field Team procedures will be updated and this will be reinforced during subsequent training with the State RAD teams.</p>			
<p><b>CAPABILITY:</b> Responder Safety and Health</p>		<p><b>PRIMARY RESPONSIBLE AGENCY:</b> State of Minnesota Emergency Operations Center</p>	
<p><b>CAPABILITY ELEMENT:</b> Systems and Equipment</p>		<p><b>START DATE:</b></p>	
<p><b>AGENCY POC:</b> Kevin Leuer 651-201-7406</p>		<p><b>ESTIMATED COMPLETION DATE:</b></p>	

<b>Issue Number: 50-12-4a3-A-12</b>		<b>Criterion: 4a3</b>	
<p><b>ISSUE:</b> 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 CFM 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.</p>			
<p><b>RECOMMENDATION:</b> Include a procedure in the SOGs to accurately calculate the length of sampling time needed to obtain the target sampling volume of 10 cubic feet and train team members on that procedure.</p>			
<p><b>SCHEDULE OF CORRECTIVE ACTION:</b> The State of Minnesota has addressed this issue by incorporating a chart into the Minnesota State RAD Team SOG. The chart will be used to ensure the minimum target sampling volume of 10 cubic feet is obtained.</p>			
<p><b>CORRECTIVE ACTION DESCRIPTION:</b> The State of Minnesota has addressed this issue by incorporating a chart into the Minnesota State RAD Team SOG. The chart will be used to ensure the minimum target sampling volume of 10 cubic feet is obtained.</p>			
<p><b>CAPABILITY:</b> Responder Safety and Health</p>		<p><b>PRIMARY RESPONSIBLE AGENCY:</b> State of Minnesota Emergency Operations Center</p>	
<p><b>CAPABILITY ELEMENT:</b> Systems and Equipment</p>		<p><b>START DATE:</b></p>	
<p><b>AGENCY POC:</b> Kevin Leuer 651-201-7406</p>		<p><b>ESTIMATED COMPLETION DATE:</b></p>	

<b>Issue Number: 50-12-3a1-P-09</b>		<b>Criterion: 3a1</b>
<b>ISSUE:</b> The Charge Nurse did not inform the Radiation Safety Responders of their turn-back value or their administrative control limit. These values are not described in the Regions Hospital Radiation Decontamination Plan.		
<b>RECOMMENDATION:</b> Update the Regions Hospital Radiation Decontamination Plan.		
<b>SCHEDULE OF CORRECTIVE ACTION:</b> The Regions Hospital plans and procedures have been updated to list the turn-back values and administration levels. This planning issue will also be covered in the annual training that is conducted within Regions Hospital.		
<b>CORRECTIVE ACTION DESCRIPTION:</b> The Regions Hospital plans and procedures have been updated to list the turn-back values and administration levels. This planning issue will also be covered in the annual training that is conducted within Regions Hospital.		
<b>CAPABILITY:</b> Responder Safety and Health	<b>PRIMARY RESPONSIBLE AGENCY:</b> State of Minnesota Emergency Operations Center	
<b>CAPABILITY ELEMENT:</b> Planning	<b>START DATE:</b>	
<b>AGENCY POC:</b> Kevin Leuer 651-201-7406	<b>ESTIMATED COMPLETION DATE:</b>	

<b>Issue Number: 33-11-1e1-P-05</b>		<b>Criterion: 1e1</b>
<b>ISSUE:</b> Restricted Area Field Team # 2 did not record background measurements in a clean area for either the Fluke Victoreen 451B Ion Chamber Survey Meter or the Ludlum Model 12 Ratemeter with Model 44-9 Probe. During interview, team members were unable to recall what the original or baseline background readings had been.		
<b>RECOMMENDATION:</b> Add a location on the Pre-Dispatch Field Team/Kit Evaluation Checklist to record background readings. This may prove helpful to the Field Teams and to persons performing assessment to calculate dose conversion factors.		
<b>CORRECTIVE ACTION DESCRIPTION:</b> This Planning Issue will be addressed in the 2013 Radiological Incident Response Plan.		
<b>CAPABILITY:</b> Responder Safety and Health	<b>PRIMARY RESPONSIBLE AGENCY:</b> Wisconsin Emergency Management	
<b>CAPABILITY ELEMENT:</b> Systems and Equipment	<b>START DATE:</b>	
<b>AGENCY POC:</b> Teri Engelhart 608-242-3242	<b>ESTIMATED COMPLETION DATE:</b>	

<b>Issue Number: 50-12-1e1-P-03</b>		<b>Criterion: 1e1</b>
<b>ISSUE:</b> According to the Wisconsin Radiological Incident Response Plan (Version 2.2), Volume 3, Appendix D, Section D.1 (Page 117), Sample Point F-4 was located at the intersection of County Road K and 860th Street (Trenton Road) at a distance of approximately 3.8 miles East South East (ESE) of Prairie Island Nuclear Generating Plant (PINGP). There is a second location where 860th Street intersects County Road K, approximately 0.8 miles northwest of Sample Point F-4. The second location is approximately 3.2 miles from PINGP.		
<b>RECOMMENDATION:</b> The State of Wisconsin should consider implementing one or more of the following recommendations: revise the list of sample points to include a note making teams aware of the second location; select a new location for sample Point F-4 when the plans are reviewed and revised; review maps for any other similar instances of multiple locations with similar descriptions; provide more detailed maps showing the names of other roads; and provide field teams with global positioning system (GPS) devices (with sample point locations preprogrammed before their use in the field.		
<b>SCHEDULE OF CORRECTIVE ACTION:</b> The State of Wisconsin will work with Pierce County to find an alternate sampling point location or update the existing F4 sampling site in the 2013 Radiological Incident Response Plan.		
<b>CORRECTIVE ACTION DESCRIPTION:</b> The State of Wisconsin will work with Pierce County to find an alternate sampling point location or update the existing F4 sampling site in the 2013 Radiological Incident Response Plan.		
<b>CAPABILITY:</b> Responder Safety and Health	<b>PRIMARY RESPONSIBLE AGENCY:</b> Wisconsin Emergency Management	
<b>CAPABILITY ELEMENT:</b> Planning	<b>START DATE:</b>	
<b>AGENCY POC:</b> Teri Engelhart 608-242-3242	<b>ESTIMATED COMPLETION DATE:</b>	

## APPENDIX B: EXERCISE TIMELINE

Table 1, on the following pages, presents the times at which key events and activities occurred during the Prairie Island Nuclear Generating Plant (PINGP) Full Participation Plume Exposure Pathway Radiological Emergency Preparedness (REP) Exercise on July 10, 2012. Also included are times that notifications were made to the participating jurisdictions/functional entities.

Table 1 - Exercise Timeline  
DATE: 2012-07-10, SITE: Prairie Island Nuclear Generating Plant, MN

Emergency Classification Level or Event	Time Utility Declared	MN-EOC	MN-PAC	MN-JIC	DAK-EOC	Goodhue-EOC	WI-SEOC
Unusual Event	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alert	0811	0826	0826	0913	0826	0826	0820
Site Area Emergency	0956	1009	1000	1024	1009	1009	1006
General Emergency	1118	1135	1126	1205	1138	1138	1128
Simulated Rad. Release Started	0940	N/A	N/A	N/A	N/A	N/A	N/A
Simulated Rad. Release Terminated	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Facility Declared Operational		0901	0901	N/A	0853	0853	0929
Declaration of State of Emergency		1021	1021	1021	1033	1033	1040
Exercise Terminated		1354	1354	N/A	1401	1355	1345
Early Precautionary Actions:		1130	1130	1145	1028	1028	1015
1st Protective Action Decision:		1144	N/A	1024	1144	1144	N/A
1st Siren Activation		N/A	N/A	N/A	1151	1151	N/A
1st EAS or EBS Message		1153	N/A	N/A	N/A	N/A	N/A
2nd Protective Action Decision:		1314	N/A	N/A	1315	1315	N/A
2nd Siren Activation		N/A	N/A	N/A	1323	1323	N/A
2nd EAS or EBS Message		1325	N/A	N/A	N/A	N/A	N/A
KI Administration Decision:		N/A	1140	1200	1021	1021	N/A



**Table 1 - Exercise Timeline**  
**DATE: 2012-07-10, SITE: Prairie Island Nuclear**  
**Generating Plant, MN**

Emergency Classification Level or Event	Time Utility Declared	WI-SEOC-RadCord	PIE-EOC
Unusual Event	N/A	N/A	N/A
Alert	0811	0833	0828
Site Area Emergency	0956	1012	1009
General Emergency	1118	1132	1132
Simulated Rad. Release Started	0940	N/A	N/A
Simulated Rad. Release Terminated	N/A	N/A	N/A
Facility Declared Operational		0930	0845
Declaration of State of Emergency		1040	1025
Exercise Terminated		1345	1345
Early Precautionary Actions:		1015	1028
1st Protective Action Decision:		N/A	1143
1st Siren Activation		N/A	1151
1st EAS or EBS Message		N/A	N/A
2nd Protective Action Decision:		N/A	1315
2nd Siren Activation		N/A	1323
2nd EAS or EBS Message		N/A	N/A
KI Administration Decision:		1024	1021

## APPENDIX C: EXERCISE EVALUATORS AND TEAM LEADERS

The following is a list of the personnel that evaluated the Prairie Island Nuclear Generating Plant (PINGP) Full Participation Plume Exposure Pathway REP Exercise on July 10, 2012. The list includes the evaluation team leadership and all evaluators. The organization each evaluator represents is indicated by the following abbreviations:

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

ICF - ICF 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
Site Specialist	Darren Bates	DHS/FEMA
Team Leader- State of Minnesota	Edward Golinski	DHS/FEMA
Team Leader – Dakota County	Karl Rabenhorst	DHS/FEMA
Team Leader – Goodhue County	Carl Bebrich	DHS/FEMA
Team Leader – State of Wisconsin	James King	DHS/FEMA
Team Leader- Pierce County	Clint Crackel	DHS/FEMA
Regional Coordinator	John Wills	ICF

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Radiological Emergency Preparedness Program (REP)

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DATE: 2012-07-10, SITE: Prairie Island Nuclear Generating Plant, MN

LOCATION	EVALUATOR	AGENCY
State of Minnesota - Bureau of Criminal Apprehension - Initial Warning Point	Bruce Swiren	ICFI
State of Minnesota - Emergency Operations Center	David Petta Meg Swearingen Bruce Swiren	ICFI ICFI ICFI
State of Minnesota - Emergency Operations Center - Planning and Assessment Center	Thomas Essig John Wills	ICFI ICFI
State of Minnesota - Emergency Operations Center - Joint Information Center	John D. Simpson	FEMA RV
State of Minnesota - Emergency Operations Center - Public Inquiry Hotline Center	Sonia Eischen	ICF
State of Minnesota - Dakota County Emergency Operations Center - State Coordinator	Karl Rabenhorst	FEMA Reg V
State of Minnesota - Goodhue County Emergency Operations Center - State Coordinator	Carl Bebrich	FEMA RV
State of Minnesota - Radiological Accident Deployment Team Command Van	Michael Petullo	ICFI
State of Minnesota - Radiological Accident Deployment Team #1	Cheryl Weaver	ICF
State of Minnesota - Radiological Accident Deployment Team #2	Jill Leatherman	ICFI
State of Minnesota - Dakota County Emergency Operations Center - Minnesota State Police - Traffic and Access Control Point	James Greer	ICFI
State of Minnesota - Dakota County Emergency Operations Center - Minnesota State Police - DCO Briefing	Steve Marshall	FEMA HQ
State of Minnesota - Cottage Grove Emergency Medical service - Medical Service - Transportation	Thomas Essig	ICFI
State of Minnesota - Regions Hospital - Medical Service - Facility	Michael Petullo	ICFI
State of Minnesota - Cottage Grove Fire Station - Evacuee/Emergency Worker Monitoring and Decontamination	Cheryl Weaver	ICF
State of Minnesota - Cottage Grove Fire Station - Evacuee Registration	Carl Wentzell	ICFI
State of Minnesota - Cottage Grove Fire Station - Evacuee Monitoring and Decontamination of Vehicles	Jill Leatherman	ICFI
State of Wisconsin - State Warning Center #2 - Initial Warning Point	Gary Bolender	ICFI
State of Wisconsin - Emergency Operations Center	Gary Bolender Danny Loomis	ICFI ICFI
State of Wisconsin - State Emergency Operations Center - Radiological Coordinator	Robert Duggleby Joseph Lischinsky	ICFI ICFI
State of Wisconsin - Forward Operations Center - Mobile Radiological Laboratory	David Seebart	ICFI
State of Wisconsin - Restricted Area Field Team #1	Earl Shollenberger	ICFI
State of Wisconsin - Restricted Area Field Team #2	David Stuenkel	ICFI
State of Wisconsin - State Emergency Operations Center/Joint Information Center - Public Information Officer	Sonia Eischen	ICF
State of Wisconsin - Public Inquiry Hotline Center - Joint Information Backup	Robert Duggleby	ICFI
State of Wisconsin - Elmwood High School - Evacuee/Emergency Worker Monitoring	Thomas Reynolds	ICFI
State of Wisconsin - Elmwood High School - Evacuee/Emergency Worker Decontamination	Thomas Gahan	ICFI



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Prairie Island Nuclear Generating Plant

State of Wisconsin - Elmwood High School - Evacuee Monitoring and Decontamination of Vehicles	Bart Ray Thomas Reynolds	ICFI ICFI
State of Wisconsin - Sacred Heart Hospital - Medical Service - Facility	Thomas Reynolds	ICFI
Dakota County - Initial Warning Point	Carl Wentzell	ICFI
Dakota County - Emergency Operations Center	Todd Gemskie Steve Marshall Carl Wentzell	FEMA RV FEMA HQ ICFI
Dakota County - Joint Information Center - Public Information Officer	John D. Simpson	FEMA RV
Dakota County - Sheriff's Department - Traffic and Access Control Point	Steve Marshall	FEMA HQ
Goodhue County - Initial Warning Point	Thomas Gahan	ICFI
Goodhue County - Emergency Operations Center	Mark Dalton Richard Fournier	ICFI ICFI
Goodhue County - Joint Information Center - Public Information Officer	John D. Simpson	FEMA RV
Goodhue County - Emergency Operations Center - Traffic and Access Control Point	Thomas Gahan	ICFI
Goodhue County - Sheriff's Department - Route Alerting	Thomas Gahan	ICFI
Goodhue County - Red Wing and Hastings School District - Evacuation School	David Stuenkel	ICFI
Goodhue County - Red Wing Fire Department - Emergency Worker Monitoring/Decontamination	Robert Duggleby	ICFI
Goodhue County - Red Wing Fire Department - Emergency Worker Monitoring and Decontamination of Equipment and Vehicles	David Petta	ICFI
Pierce County - Elmwood Ambulance Service - Medical Service - Transportation	Earl Shollenberger	ICFI
Pierce County - Sheriff's Dispatch Center - Initial Warning Point	Clark Duffy	ICFI
Pierce County - Emergency Operations Center	Clark Duffy Bernis Hannah Bart Ray	ICFI ICFI ICFI
Pierce County - Emergency Operations Center - Traffic and Access Control Post	Bernis Hannah	ICFI
Pierce County - County Courthouse - Dosimetry Distribution Point	Clark Duffy	ICFI
Pierce County - Joint Information Center - Public Information Officer	John D. Simpson	FEMA RV
Pierce County - Elmwood High School - Congregate Care Center	Meg Swearingen	ICFI
Pierce County - Lindgren Learning Center - Evacuation School	David Seebart	ICFI
Pierce County - Elmwood Reception Center - Dosimetry Distribution Point	Meg Swearingen	ICFI
* Team Leader		

## APPENDIX D: ACRONYMS AND ABBREVIATIONS

Acronym	Meaning
AEOC	Alternate Emergency Operations Center
AIC	Assistant Incident Commander
AMS	Aerial Measurement System
ARC	American Red Cross
ARCA	Area Requiring Corrective Action
ARES	Amateur Radio Emergency Service
CCC	Congregate Care Center
CIS	Computer Information System
CST	Civil Support Team
DC	Decontamination Chief
DCC	Dakota Communications Center
DCEOC	Dakota County Emergency Operations Center
DDC	Dosimetry Distribution Center
DO	Duty Officer
DRD	Direct Reading Dosimeter
EAL	Emergency Action Level
EAS	Emergency Alert System
ECL	Emergency Classification Level
EMD	Emergency Management Director
EMS	Emergency Medical Services
EMSRB	Emergency Medical Service Regulatory Board
ENRF	Emergency Notification Report Form
EOC	Emergency Operations Center
EOF	Emergency Operations Facility
EPC	Emergency Program Coordinator
EPZ	Emergency Planning Zone
ERDS	Emergency Response Data System
ERP	Emergency Response Plan
ERV	Emergency Response Vehicle
ESE	East South East
ESF	Emergency Support Function
ETE	Estimated Time Evacuation
EW	Emergency Worker
EWDC	Emergency Worker Decontamination Center



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FDC	Field Data Coordinator
FEMA	Federal Emergency Management Agency
FOC	Forward Operations Center
FRM	Field Response Manager
FTC	Field Team Coordinator
GAR	Governors Authorized Representative
GE	General Emergency
GIS	Geographic Information System
GPS	Global Position System
HS	Human Services
HSEM	Homeland Security Emergency Management
IC	Incident Commander
ICS	Incident Command System
IT	Information Technology
IWP	Initial Warning Point
JIC	Joint Information Center
LPIO	Lead Public Information Officer
MDO	Minnesota Duty Officer
MDT	Message Display Terminal
MHP	Minnesota Highway Patrol
MRCC	Medical Response Communications Center
MRL	Mobile Radiological Laboratory
MSP	Minnesota State Police
NARAC	National Atmospheric Release Advisory Center
NARS	Nuclear Accident Reporting System
NRC	Nuclear Regulatory Commission
OBE	Operating Basis Earthquake
ORO	Offsite Response Organizations
PA	Public Address
PAC	Planning Assessment Center
PAD	Protective Action Decision
PAG	Protective Action Guidelines
PAR	Protective Action Recommendation
PCDC	Pierce County Dispatch Center
PI	Public Information
PIH	Public Inquiry Hotline
PINGP	Prairie Island Nuclear Generating Plant
PIO	Public Information Officer
PM	Portal Monitor
PPE	Personal Protective Equipment

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PRD	Permanent Record Dosimeter
RAC	Regional Assistance Committee
RACES	Radio Amateur Civil Emergency Services
RAD	Radiological Accident Deployment
RAFT	Restricted Area Field Team
RAP	Radiological Assistance Program
RC	Reception Center
RCA	Radiologically Controlled Area
REA	Radiation Emergency Area
REP	Radiological Emergency Preparedness
RIRP	Radiological Incident Response Plan
RN	Registered Nurses
RO	Radiological Officer
RSO	Radiation Safety Officer
RWFD	Red Wing Fire Department
RWPD	Red Wing Police Department
RWPW	Red Wing Public Works
SAE	Site Area Emergency
SDO	Senior Duty Officer
SEOC	State Emergency Operations Center
SIM	State Incident Manager
SOG	Standard Operating Guides
SRC	State Radiological Coordinator
TACP	Traffic Access Control Posts
TEDE	Total Effective Dose Equivalent
TLD	Thermo Luminescent Dosimeter
TPM	Transportable Portal Monitor
TSC	Technical Support Center
VHF	Very High Frequency
VOIP	Voice Over Internet Phone
WEM	Wisconsin Emergency Management

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## APPENDIX E: EXERCISE PLAN

The following documents are included in the Exercise Plan:

State of Minnesota Extent-of-Play

State of Minnesota Deficiency Re-Demonstration Extent-of-Play

Medical Drill Scenario Cottage Grove EMS Ambulance

Medical Drill Scenario Regions Hospital

State of Wisconsin Extent-of-Play

Medical Drill Scenario Sacred Heart Hospital

**2012  
Prairie Island Nuclear Generating Plant Exercise  
Extent of Play Agreement  
State of Minnesota/Goodhue County and Dakota County**

The exercise will take place on July 9, 10<sup>th</sup> and 11<sup>th</sup> of 2012. This exercise will involve out-of-sequence demonstrations (MS-1 on July 9, Emergency Worker Decontamination on July 10, EV-2 on July 11<sup>th</sup> and radio stations on July 9<sup>th</sup> and 11<sup>th</sup>). The full scale Plume Phase exercise demonstration will be on July 10, 2012 and will include state and county EOC activations as well as the Joint Information Center (JIC).

The State of Minnesota, Goodhue and Dakota Counties, St. Paul Regions Hospital (MS-1), Cottage Grove EMS Ambulance (MS-1), the Red Wing Fire Department (EWD) and the Red Wing School District, WCCO and Minnesota Public Radio (MPR) are the off-site response organizations (OROs) for this exercise.

Criteria that can be re-demonstrated immediately for credit, at the decision of the evaluator, include the following: 3.a.1, 3.b.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.

**Monday July 9<sup>th</sup>**

**MS-1 Evaluations**

Cottage Grove EMS Ambulance	6:30 AM	Regions Hospital 640 Jackson Street St. Paul, MN 55101
Regions Hospital	7:00 AM	Regions Hospital 640 Jackson Street St. Paul, MN 55101
EAS Transmission	10:00 AM	Minnesota Public Radio (MPR) 480 Cedar Street Saint Paul, MN USA 55101
Pre-Exercise Briefing Entrance Meeting	2:00 PM	Country Inn & Suites 300 33rd St W Hastings, MN 55033

**Tuesday July 10<sup>th</sup>**

**Full scale Plume Phase Exercise**

Evaluator Briefing	7:00 AM	State Emergency Operations Center 444 Cedar Street. Suite 223 St. Paul MN 55101
State Duty Officer	-	Bureau of Criminal Apprehension 1430 Maryland Ave E St Paul, MN 55106
Hennepin County Sheriff's Dispatch Center	-	9401 83 <sup>rd</sup> Ave. North Brooklyn Park MN 55443



<b>Tuesday July 10<sup>th</sup></b>		
Dakota Communications Center (DCC) <i><b>NOTE:</b> This location is also the alternate EOC for Dakota County and will be evaluated during this exercise.</i>	-	2860 160th West Street Rosemount MN 55068
State EOC & PAC	-	Town Square 444 Cedar St Suite 223 St. Paul MN 55101
JIC	-	Town Square 444 Cedar St Suite 223 St. Paul MN 55101
Media Briefing Room	-	Town Square 444 Cedar St Suite 100 St. Paul MN 55101
Goodhue County EOC	-	430 W. 6 <sup>th</sup> St, Red Wing, MN 55066
Minnesota State Patrol Helicopter Notification Demonstration (Out of Sequence)	8:00 AM	2860 160th West Street Rosemount MN 55068
State Field Teams & Command Van	7:30 AM	Plymouth Fire Station #1 13205 County Road 6 Plymouth, MN 55441
	9:00 AM	Hastings Armory 3050 Red Wing Blvd. Hastings, MN 55033
<b>Reception Center</b>		
Cottage Grove Armory	7:00 PM	8180 Belden Boulevard Cottage Grove, MN 55016
Vehicle Decon		Cottage Grove Public Works Facility 8635 West Point Douglas Road South Cottage Grove, MN 55016
<b>Wednesday July 11<sup>th</sup></b>		
EV-2	9:00 AM	Red Wing School District 2451 Eagle Ridge Drive Red Wing, MN 55066
EAS Transmission	10:00 AM	WCCO – AM Radio 625 Second Avenue South Minneapolis, MN 55402

Tuesday July 10 <sup>th</sup>		
Emergency Worker Monitoring & Decontamination		
Red Wing Fire Department	7:00 PM	420 Plum St. Red Wing, MN 55066

Friday July 13th		
FEMA players debriefing	9:00 AM	Goodhue County EOC 430 W. 6 <sup>th</sup> St, Red Wing, MN 55066
FEMA media out briefing <i>NOTE: The State of MN will provide the notification to the media for the FEMA out brief</i>	10:00 AM	Goodhue County EOC 430 W. 6 <sup>th</sup> St, Red Wing, MN 55066

#### 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 Governor's Office is not directly participating in the exercise and the faxing and e-mailing of emergency executive orders to the Governor and the Secretary of State will be simulated.
- Dakota County will conduct the exercise at their backup EOC located at the Dakota Communications Center: 2860 160th West Street, Rosemount MN 55068 – All references to the Dakota County EOC in the Extent of Play refer to the backup location.
- Wisconsin will not be participating in the Minnesota Hotline.
- Schools are simulated to be in session.

#### PREVIOUS EXERCISE FINDINGS AND PLANNING ISSUES

##### State of Minnesota

During the previous exercise in 2010, the State of Minnesota received a planning issue under criterion 1.e.1 – Equipment, maps displays, dosimetry, potassium iodide (KI) and other supplies are sufficient to support emergency operation whereby the Emergency Medical Crew were provided a 0-200mR direct-reading dosimeter (DRD). This DRD was not able to read turn-back values of 1R or total exposure limits of 3R in accordance with current plans and procedures.

This Planning issue was addressed by modifying the Minnesota Emergency Worker Exposure Log "Green Cards" with the statement, "If your DRD is reading any exposure to radiation and you are outside of the 10-mile EPZ, report to your supervisor or Radiological Officer." This change has been reviewed and approved by FEMA.

##### Dakota County

Dakota County received one planning issue during the previous exercise in 2010. The Planning Issue was identified under Equipment and Supplies to Support Operations, Criterion 1.e.1 – Equipment, maps, displays, dosimetry, potassium iodide (KI), and other supplies are sufficient to support emergency operations, whereby the Radiological Officer (RO) had 26 DRDs, 13 of which were expired requiring recertification in 2008. There were also three DRDs that had stickers marked "failed" on them. The inventory of DRDs was not checked by the RO upon delivery and prior to being packaged for distribution to Emergency Workers.



Dakota County updated their standard operation guidelines (SOGs) for the Radiological Officer (RO) to ensure all DRDs have current calibration dates properly marked on the device before issuing to emergency workers. Furthermore, the operations chief must ensure that all DRDs that are due for calibration are gathered and sent to the State for their annual calibration. This change has been reviewed and approved by FEMA.

## **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 10, 2012. The SEOC located at 444 Cedar Street, Suite 223, St. Paul, MN will be activated at an 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 pager. The State Regional Program Coordinators (RPCs) will act as liaisons to the counties and will be pre-positioned in the area of the Goodhue and Dakota County EOCs due to long travel time. The RPCs will wait an appropriate amount of time before interacting with other county responders.

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 10, 2012 from the Prairie Island Nuclear Generating Plant. The BCA Communications Center will then demonstrate the call-out of staff and transfer of communications from the call center to SEOC in a timely manner.

##### State Radiological Accident Deployment (RAD) Teams

RAD teams (emergency phase field monitoring and sampling teams) will be mobilized at the ALERT classification. Notification will occur through the Minnesota Duty Officer to the Hennepin County Sheriff's Dispatch Center at 9401 83<sup>rd</sup> Ave. North, Brooklyn Park, who will in turn page team members. RAD Teams will pre-position at the Hastings Armory parking Lot, 3050 Red Wing Blvd., in Hastings. The Maple Grove Fire Command Van will serve as a mobile field command post and will relocate as determined by the scenario. The command van will relay field measurements taken by the field teams to the Planning and Assessment Center in the SEOC.

##### 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. The JIC's media briefing room is located in the lower level of the Department of Public Safety's office in Suite 100 of the Town Square building. Both Goodhue and Dakota County PIO liaisons will be pre-positioned in the area of the SEOC and will wait an appropriate amount of time before interacting.

##### 24-hour Staffing

Sufficient 24-hour staffing capability of key personnel for the EOC's will be presented to FEMA from the state and the counties at the exercise entrance meeting on July 9 at the pre-exercise briefing.

#### **Goodhue County**

The initial call will be received in the Sheriff's dispatch office of the Goodhue County Law Enforcement Center. The Goodhue County Law Enforcement Center and the County EOC are located at 430 W. 6<sup>th</sup> St, Red Wing, MN.

Initial calls to activate EOC staff will begin in the dispatch office. Goodhue County will fully activate their EOC at an Alert ECL. A Goodhue County PIO liaison will be pre-positioned in St. Paul and wait until notified to respond to the SEOC during plume phase exercise.

A sufficient 24-hour staffing roster of key personnel will be presented at the exercise entrance meeting on July 9 at the pre-exercise briefing.

Recommendations from the State Operations Chief will be communicated and coordinated with the County EOC Incident Commander (previously County Operations Chief) via telephone.

24-hour Staffing

Sufficient 24-hour staffing capability of key personnel for the EOC's will be presented to FEMA from the state and the counties at the exercise entrance meeting on July 9 at the pre-exercise briefing.

**Dakota County**

The initial call will be received at the Dakota Communications Center (DCC) located at 2860 160<sup>th</sup> West Street in Rosemount and the County EOC which is located at Judicial Center 1580 Hwy 55, Hasting, MN.

Initial calls to activate EOC staff will begin in the dispatch office. Dakota County will fully activate their alternate EOC located at the DCC at the Alert ECL. A Dakota County PIO liaison will be pre-positioned in St. Paul and wait until notified to respond to the SEOC during plume phase exercise.

A National Guard liaison will be pre-positioned close to the Dakota County backup EOC and will wait a reasonable time before deploying.

A sufficient 24-hour staffing roster of key personnel will be presented at the exercise entrance meeting on July 9 at the pre-exercise briefing.

Recommendations from the State Operations Chief will be communicated and coordinated with the County Operations Chief via telephone.

A DNR conservation officer may be present in the alternate Dakota County EOC, but will not be evaluated.

24-hour Staffing

Sufficient 24-hour staffing capability of key personnel for the EOC's will be presented to FEMA from the state and the counties at the exercise entrance meeting on July 9 at the pre-exercise briefing.

**SUB-ELEMENT 1.b - Facilities**

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

**State of Minnesota and Goodhue County**

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

**Dakota County**

Dakota County will be conducting the exercise at their alternate EOC facility located at the Dakota Communications Center: 2860 160th West Street Rosemount MN 55068. The areas evaluated will include adequate space, furnishings, lighting, restrooms, ventilation and backup power as required to support operations.

#### 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 Minnesota Governor's Authorized Representative (GAR) will establish communications with the Wisconsin GAR early into the incident to ensure open and coordinated communications and maintain contact as appropriate.

The Minnesota Governor's Authorized Representative (GAR) will establish communications with the Prairie Island Indian Community early into the incident to ensure open and coordinated communications and maintain contact as appropriate. This will be a simulated call to the Prairie Island Indian Community Tribal Chair and the Prairie Island Indian Community may have a representative in the SEOC during the exercise for direct coordination with the State Incident Manager (SIM).

The Minnesota State Incident Manager (SIM) will establish communications with the Wisconsin Officer-in-Charge early into the incident to ensure open and coordinated communications. The SIM will coordinate with the Wisconsin Officer-in-Charge on the PAR to gain concurrence in a timely manner for approval of a Protective Action Decision (PAD).

The MN SEOC Operations Chief, Goodhue County Incident Commander and Dakota County Operations Chief will coordinate decision making and emergency response activities.

The Minnesota Planning Chief will coordinate and validate the PAR information from the utility with the Wisconsin State Radiological Coordinator. The Minnesota Planning Chief will coordinate the development of a PAD with the Wisconsin State Radiological Coordinator as appropriate.

The Governor will not be participating in this exercise, so the direct communications and faxing of document to be signed by the Governor and the Secretary of State will be simulated.

RAD Field Teams will receive their direction from the RAD Team Captain (located in the Command Van).

##### **Goodhue County**

The Goodhue County Incident Commander will provide direction and control including coordinating emergency activities within the county. Activities will be coordinated with the State, Goodhue County EOC, and field staff as necessary.

##### **Dakota County**

The Dakota County Operations Chief will coordinate decisions and emergency activities within the county. Activities will be coordinated with the State, Dakota 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, the State RAD Teams and the Prairie Island Nuclear Generating Plant. The state will also demonstrate one additional (either secondary, tertiary or alternative) means of communication during the exercise.

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Line of Communication	Primary	Secondary	Tertiary	Alternative
SEOC to County EOC  Dakota (Backup)	Commercial telephone or Cell Phones	Cell phones or Public Safety Radio VHF/800 MHz	FAX machine	RACES (simulated)
Goodhue	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 Prairie Island Nuclear Generating Plant	Auto-Ring (dedicated) Hotline: SEOC to Technical Support Center (TSC) and EOF	Commercial telephone/FAX machine	800 MHz NSPM	
SEOC to Federal Response Organizations (FEMA, NRC, DOE, and Corps of Engineers)	Commercial telephone/FAX machine	Satellite telephone	National Warning System (NAWAS)	Amateur Radio
SEOC to Field Monitoring Teams	Commercial telephone/ Cell phone	800 MHz ARMER	Satellite telephone	Amateur Radio
Minnesota SEOC to Wisconsin SEOC	Commercial telephone/FAX machine	National Warning System (NAWAS)	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	

The State of Minnesota will demonstrate the primary means of communication between the State EOC and the risk counties of Goodhue and Dakota, the State of Wisconsin, and the Prairie Island 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 Prairie Island Nuclear Generating Plant	Dedicated telephone line	Commercial telephone/FAX Machine	800 MHz NSPM	Cell Phones
MDO to SEOC	Commercial telephone/FAX Machine	Public Safety Radio VHF/800 MHz ARMER system	National Warning System (NAWAS)	Satellite Phone

### **Goodhue County**

The Goodhue County EOC's primary communication links are a Private Branch Exchange number (PBX) to the SEOC, Dakota County, Pierce County and the Prairie Island Nuclear Generating Plant.

The first back-up communication method is commercial telephone. Facsimile machines provide hard copy capability.

Public Safety Radio VHF/800 MHz ARMER system provides a secondary back up. Goodhue County EOC staff will demonstrate functionality of the primary means of communication and one back up method of communication.

### **Dakota County**

Dakota County is installing phone lines into their backup EOC facility. If these are operational for the exercise, they will be the primary communication link to the SEOC, Goodhue County, Pierce County and the Prairie Island Nuclear Generating Plant with cell phones acting as a backup. If the phone lines are not ready for the exercise, their primary communication links will be cell phones.

The first back-up is a Public Safety Radio VHF/800 MHz ARMER system. Facsimile machines provide tertiary backup and hard copy capability. RACES will not conduct a radio test.

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

**Criterion 1.e.1: Equipment, maps, displays, monitoring instruments, dosimetry, potassium iodide (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, JIC, media briefing room, command van as necessary to support emergency operations.

#### Dosimetry:

Emergency workers will use DRDs and TLDs to control exposure as follows:

Emergency Worker	Dosimeter Range			Pick-up Location
State RAD Teams	0-200 mR	0-20 R	TLD	Maple Grove Fire Station #2 and Plymouth Fire Station #1
DNR Field Teams (Not demonstrated this exercise)	0-200 mR		TLD	Command van
MDA Field Teams (Not demonstrated this exercise)	0-200 mR		TLD	MDA DOC
State Patrol Helicopter Crew (alert and notification)		0-20 R	TLD	Dakota County EOC, weather permitting
State Patrol & MnDOT (Goodhue County)	0-200 mR	0-20 R	TLD	Goodhue County EOC
State Patrol & MnDOT (Dakota County)		0-20 R	TLD	Dakota County EOC
Ambulance crew (Doesn't take KI) (Cottage Grove EMS Ambulance)	0-200 mR		TLD	Reception Center

**Note:** HSEM staff will be providing the initial briefing and dosimetry to the ambulance personnel in the parking lot just before the demonstration.

Potassium Iodide (KI):

Packets of KI are a part of the State RAD Teams response kits. State RAD Team members will simulate taking KI when directed by the State RAD Team Captain. 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.

Helicopter Crews performing alerting for transient populations in recreation areas within the 10 mile EPZ are considered emergency workers and will take KI when authorized.

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 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 9, by FEMA. All radiation monitoring equipment will be operationally checked prior to use to verify proper functioning within a specified operational range.

#### Traffic/Access Control Points

Traffic and access control equipment is permanently deployed at the area truck stations for use at the designated Trunk Highway Traffic and Access Control Points (TACPs) in the area surrounding the Prairie Island 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 Site Area Emergency ECL in coordination with the state and the county. The Minnesota Department of Transportation personnel will simulate setting up the barricades and the department also has additional daily use equipment deployed throughout the districts which could be used to supplement if needed.

The barricades are deployed as follows:

Truck Station	Location	# of Barricades
Red Wing Truck Station/Red Wing Sub-Area	3890 Pepin Avenue Red Wing, MN 55066	33
Hastings Truck Station/Hastings Sub-Area	951 East 21 <sup>st</sup> Street Hastings, MN 55033	13

#### **Goodhue County**

##### Equipment, Maps and Displays:

Goodhue County will demonstrate the use of equipment, maps, and displays at the County EOC as necessary to support emergency operations. All radiation monitoring equipment will undergo a response check prior to use to verify that the equipment responds to a radioactive check source. All City/County decontamination equipment is stored at the Red Wing Fire Department located at 420 Plum Street, Red Wing.

##### Dosimetry:

Normal Direct Reading Dosimetry packets are located in strategic areas of the building and TLDs will be worn by participants in the County Emergency Operations Center. County emergency workers will wear pocket dosimeters and TLDs as follows:

Emergency Worker	Dosimeter Range			Pick-up Location
Field Staff (route alerting, etc.)	0-200 mR	0-20 R	TLD	Goodhue Co. EOC
Decontamination Staff*	0-200 mR	0-20 R	TLD	Red Wing FD

\*Decontamination staff do not take KI.

##### 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 and expires on July 2015.


#### **Dakota County**

##### Equipment, Maps and Displays:

Dakota County will demonstrate the use of equipment, maps, and displays at their alternate County EOC as necessary to support emergency operations. All radiation monitoring equipment will undergo a response check prior to use to verify that the equipment responds to a radioactive check source. Ludlum Model 3s are located at Hastings Fire 115 5th Street West, while all other County decontamination equipment is stored at the Hastings Public Works Facility located at 1221 Progress Drive, Hastings.

Dosimetry:

All county emergency workers will wear TLDs to monitor and control exposure.

Emergency Worker	Dosimeter Range		Pick-up Location
Field Staff (route alerting, etc.)		0-20 R	TLD
			Dakota Co. EOC

Potassium Iodide (KI):

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

Equipment maintenance:

All routine equipment checks and maintenance will be documented in the current PR-1 report, which will be provided at the entrance meeting.

**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 protective action guides.**

**State of Minnesota**

All emergency workers have a radiation exposure limit of 3 R with a turn back limit of 1 R as read on a DRD. The withdraw rate limit for State RAD Teams is 100 mR/hr. The Planning Chief may authorize radiation exposure to emergency workers in excess of the administrative limits in accordance with standard operating guidelines. If the scenario does not require an authorization of exposure above the administrative limit, the process for doing so can be discussed with the evaluator.

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). KI for State RAD Team members is included in their sampling kits. State Patrol personnel receive their kits at county EOCs per procedure. State emergency workers that will simulate KI administration are:

- State Patrol Helicopter crew, weather permitting (helicopter crew-alerting the public, if in the air)
- State RAD Team members (field monitoring and sampling)
- State Patrol (Highway traffic control points)

**Goodhue County, Dakota County**

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



All emergency workers have a radiation exposure limit of 3 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 – Radiological Assessment and Protective Action Recommendations and Decisions for the Plume Phase of the Emergency**

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

**State of Minnesota**

The Planning Chief will evaluate the Prairie Island Nuclear Generating Plant information and complete independent dose projections based on the information and simulated field-monitoring data provided by the State RAD Team Captain, via telephone from the Command Van.

The Planning Chief will make an independent evaluation of the data in the utilities' PAR and after coordinating with the State of Wisconsin SRC will develop a Protective Action Recommendation to be approved by the Governor or Governor's Authorized Representative (GAR). (Note: The coordination for the final PAD decision is coordinated between the Wisconsin Officer-In-Charge and the Minnesota SIM.)

**Goodhue County, Dakota 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 protective action decisions (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 recommendations from the State Incident Manager and the Planning Chief. Decision-making for incidents at the Prairie Island Nuclear Generating Plant is the responsibility of the Governor or GAR as outlined in Governor's Executive Order and the Minnesota Emergency Operations Plan.

KI is pre-distributed on a voluntary basis to members of the general public living in the Prairie Island 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 at the General Emergency ECL.

**Goodhue County, Dakota County**

Goodhue and Dakota Counties participate in the protective action decision process in accordance with the state's PAD process. This includes concurrence and coordination between the Minnesota SEOC, Goodhue, Pierce and Dakota counties and the State of Wisconsin.

**SUB-ELEMENT 2.c – Protective Action Decision Consideration for the Protection of Special Populations**

**Criterion 2.c.1: Protective action decisions are made, as appropriate, for groups of persons with disabilities and access/functional needs.**

#### **State of Minnesota**

It is the responsibility of the counties to implement protective actions for special populations; the state of Minnesota is responsible for establishing facilities and providing resources such as reception centers and relocation centers to be made available for the special population groups. Resources that are available can be discussed with the evaluator.

The State of Minnesota acts as the backup for notifying school systems/districts and will demonstrate, but will not be evaluated, the capability to contact public school systems/districts during the exercise to alert and notify all public school systems/districts of emergency conditions that are expected to or may necessitate protective actions for students.

#### **Goodhue County, Dakota County**

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

The counties are the primary means of notifying school systems/districts, Goodhue and Dakota Counties will demonstrate the capability and actually contact public school systems/districts during the exercise to alert and notify all public school systems/districts of emergency conditions that are expected to or may necessitate protective actions for students.

### **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 protective action decisions are made based on the ORO's planning criteria.**

#### **State of Minnesota**

This criterion is not selected for evaluation.

#### **Goodhue County**

This criterion is not selected for evaluation.

#### **Dakota County**

This criterion is not selected for evaluation.

#### **Ingestion Counties**

This criterion is not selected for evaluation.

### **SUB-ELEMENT 2.e – Radiological Assessment and Decision-Making Concerning Relocation, Re-entry, and Return**

**Criterion 2.e.1: Timely 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.

#### **Goodhue County**

This criterion is not selected for evaluation.

**Dakota 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 issue appropriate dosimetry, KI, and procedures, and manage radiological exposure to emergency workers in accordance with the plans/procedures. Emergency workers periodically and at the end of each mission read their dosimeters and record the readings on the appropriate exposure record or chart. OROs maintain appropriate record-keeping of the administration of KI to emergency workers.**

**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.

ORO 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.

***Note:** HSEM staff will be providing the initial briefing and dosimetry to the ambulance personnel in the parking lot just before the demonstration.*

**Goodhue 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. Goodhue 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.

#### **Dakota 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. Dakota 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 alternate EOC (all will be simulated except for 1 Deputy) to pick up KI and dosimetry, receive a briefing and their emergency assignment. Dakota County will give the dosimetry and KI brief to the helicopter personnel.

#### **SUB-ELEMENT 3.b – Implementation of KI Decision**

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

#### **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.

#### **Goodhue and Dakota County**

Goodhue and Dakota Counties will demonstrate the capability to accomplish distribution of KI consistent with decisions made. 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.

#### **SUB-ELEMENT 3.c – Implementation of Protective Actions for Persons with Disabilities and Access/Functional Needs**

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

#### **State of Minnesota**

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

#### **Goodhue County**

Goodhue County will demonstrate this criterion by an interview process between EOC staff and the evaluators. It is the intent of Goodhue County to evacuate all persons with disabilities and access/functional needs at the Site Area Emergency ECL. All calls will be simulated and contacts logged. All Goodhue County transportation providers in the plan will be contacted.

#### **Dakota County**

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

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

**State of Minnesota**

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.

**Goodhue County**

An EV-2 evaluation will be conducted with the Red Wing Public School District on Wednesday, July 11<sup>th</sup> at 9:00 AM. Evaluation will be through interview of the necessary school and transportation officials that may include but are not limited to: the Director, one teacher, one nurse, one transportation provider and one bus driver.

**Dakota County**

This criterion is not selected for this exercise.

**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**

The State will coordinate if air, rail or waterway transportation requires control. MnDOT performs the notification for river, rail and air traffic restrictions from the SEOC. This will be demonstrated through simulated calls at the SEOC during the exercise.

The State Highway Patrol will demonstrate traffic control as coordinated through the alternate Dakota County EOC. State Patrol and MnDOT personnel other than those in the SEOC will receive their briefing and pick up dosimetry from the county in which the traffic control point is established. MnDOT personnel will participate by interview and will simulate barrier material for the traffic control points. The evaluator will meet the responding State Patrol Officer and MnDOT personnel at the Dakota Communication Center (alternate EOC) then precede to the parking lot for the interview.

A State Trooper will simulate proceeding to a conveniently located, pre-determined roadblock location. No barricades will actually be placed on the roadside. An evaluator will conduct a procedural interview outside of the EOC in the parking lot.

**Goodhue County**

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

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

#### **Dakota County**

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

A deputy 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 Dakota County alternate 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 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 evacuee traffic as necessary. A controller inject will be used to simulate a traffic impediment on one of the evacuation routes.

##### **Goodhue County and Dakota 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 any contacts, either actual or simulated, 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.

##### **Goodhue County**

This criterion was not selected for this exercise.

##### **Dakota County**

This criterion was not selected for this exercise.

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

##### **State of Minnesota**

This criterion was not selected for this exercise.

##### **Goodhue County**

This criterion was not selected for this exercise.

##### **Dakota County**

This criterion was not selected for this exercise.

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

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

**State of Minnesota**

This criterion was not selected for this exercise.

**Goodhue County**

This criterion was not selected for this exercise.

**Dakota County**

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 (2 or more) are managed to obtain sufficient information to help characterize the release and to control radiation exposure.**

**State of Minnesota**

The State RAD Team Captain, operating from the command van will manage the activities of the two State RAD Teams including giving the teams a pre-deployment briefing. The State RAD Teams will perform field measurements to characterize the plume in accordance with their procedures/guidelines. The command van controller will provide data from one phantom team. The Prairie Island Nuclear Generating Plant is responsible for obtaining "peak" plume airborne measurements.

The responsibility for obtaining peak (centerline) measurements in the plume has been accepted by licensee field monitoring teams, with concurrence from the State of Minnesota, therefore there is no need for these measurements to be repeated by ORO monitoring teams.

**Goodhue County, Dakota 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**

The State RAD Teams will demonstrate this criterion and perform ambient radiation measurements in accordance with their procedure/guideline. Airborne sampling will be demonstrated by the State RAD Teams in the field using air samplers to obtain a representative air sample. The State RAD Team members will conduct gross particulate and iodine field analysis. Purging the sampler head is not a part of State RAD Team's procedures/guidelines.

Field measurement data will be communicated to the command van and then relayed to the PAC. Plume phase samples will be packaged for transport by the State RAD Teams. Chain of custody will be documented on sample custody forms. Samples will be picked up by a sample runner and taken to the Command Van.

**Goodhue County, Dakota 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 (2 or more) demonstrate the capability to make appropriate measurements and to collect appropriate samples (e.g., food crops, milk, water, vegetation, and soil) to support adequate assessments and protective action decision making.**

**State of Minnesota**

This criterion was not selected for this exercise.

**Goodhue County, Dakota 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 protective action decisions.**

**State of Minnesota**

This criterion was not selected for this exercise.

**Goodhue County, Dakota 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 FEMA 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 Minnesota risk counties.
5. The PAR is communicated to the Minnesota State Incident Manager (SIM)
6. The SIM gets concurrence from the State of Wisconsin Officer in Charge (OIC).
7. The PAR is communicated to the Governor's Authorized Representative (GAR) where once approved, it becomes a Protective Action Decision (PAD).



8. 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 Minnesota GAR.
9. Special News Bulletins are sent out.
10. Media Briefings occur.
11. The SIM notifies the Wisconsin Officer in Charge of the siren sounding time and the time after the sirens sound that the EAS message will be transmitted. The Wisconsin OIC is ultimately responsible for relaying this message and any subsequent messages to Pierce County.
12. A copy of the approved PAD goes to the Operations Chief to coordinate these times with Dakota and Goodhue counties via a conference call – the EAS message is the State's responsibility.
13. The sirens are sounded (county responsibility - simulated).
14. The EAS message is transmitted (simulated).

The Wisconsin Officer in Charge is responsible for all communications with Pierce County. The State of Minnesota has no direct communication with Pierce County.

**Note:** *The first PAD is pre-approved and the SIM is authorized to give an approval.*

An EAS transmitter (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. The EAS message will contain the following basic information regarding the event:

- Identification of the ORO responsible and the official with authority for providing the alert signal and instructional message;
- Identification of the commercial NPP and a statement that an emergency exists there;
- Reference to REP-specific emergency information (e.g., brochures, calendars, etc.) for use by the general public during an emergency; and
- A closing statement asking that the affected and potentially affected population stay tuned for additional information, or that the population tune to another station for additional information.

The method used to broadcast the message will be fully demonstrated as it would in an actual emergency up to the point of transmission. In an out-of-sequence demonstration, evaluators will observe the processes used by WCCO and MPR to include the following:

- Observe whether the EAS stations demonstrate the method of broadcast up to the point of transmission,
- Note whether the station verifies, if required, that message was from offsite response organization (ORO) and that the message is correct,
- Note time of all messages,
- Note if station was kept updated during exercise,
- Interview to verify 24-hr capability,
- Verify emergency backup power

Additional information will be disseminated through the JIC using special news bulletins and media releases.

Weather permitting, a State Patrol helicopter, equipped with a public address system, will warn recreational area individuals and/or groups. The State patrol helicopter will operate from the alternate Dakota County EOC located at 2860 160th West Street Rosemount MN 55068.

Activation of sirens, weather radios, and the broadcast of media messages will all 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.

#### **Goodhue County and Dakota County**

All EAS messages are developed and disseminated by the SEOC. After each PAR becomes a PAD, siren sounding will be simulated once. Goodhue County has the lead for siren activation coordination with Dakota and Pierce County. The coordination of alert and notification implementation will be demonstrated in the Goodhue EOC and the alternate Dakota County EOC (siren activation will be simulated).

#### **Criterion 5.a.2: [RESERVED]**

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

##### **State of Minnesota**

This criterion is not selected for this exercise.

##### **Goodhue County**

This criterion is not selected for this exercise.

##### **Dakota County**

This criterion is not selected for this exercise.

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

##### **State of Minnesota**

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

##### **Goodhue County**

Goodhue County does not have FEMA approved 100% siren coverage within the 10-mile EPZ and will demonstrate route alerting. A deputy will be called into the county EOC, and receive a short briefing and be provided with dosimetry and KI. They will pick up an evaluator at the EOC at that time and will demonstrate route alerting in exception areas. The route will be selected by the Goodhue County Incident Commander. Actual testing of the mobile public address may be conducted at any agreed-upon location by the evaluator and Goodhue County.

*Note: Sirens have been installed in Goodhue County and are pending FEMA approval for 100% coverage. If FEMA approves 100% coverage prior to the exercise, this will not be demonstrated.*

##### **Dakota County**

Dakota County has 100% siren coverage and will not demonstrate route alerting.

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

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

##### **State of 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 the release of pre-scripted EAS messages is the responsibility of the SEOC Planning Chief. Special news bulletins are pre-scripted and will be 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.

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.

PIOs will simulate distributing news releases and advisories via e-mail and 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.

**NOTE:** The State of Wisconsin will not be participating in the Minnesota Hotline.

#### **Goodhue County**

Emergency information released to the public and the news media are the responsibility of the SEOC and the JIC. The Goodhue County Public Information Officer (PIO) Liaison, located in the SEOC and in accordance with JIC activities, will demonstrate the coordination of Goodhue County public information. The Goodhue County PIO Liaison will be pre-positioned in the area of the SEOC and will wait an appropriate amount of time before interacting with other responders.

Goodhue County will not be demonstrating any local briefings.

#### **Dakota County**

Emergency information released to the public and the news media are the responsibility of the SEOC and the JIC. The Dakota County Public Information Officer (PIO) Liaison, located in the SEOC, in accordance with JIC activities, will demonstrate the coordination of Dakota County public information. The Dakota County PIO Liaison will be pre-positioned in the area of the SEOC and will wait an appropriate amount of time before interacting with other responders.

Dakota 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**

Evacuee monitoring will be demonstrated on July 10, 2012 at 7:00 pm at the Cottage Grove Armory located at 8180 Belden Boulevard, Cottage Grove, MN 55016.

The facility Director of Operations is a Safety Officer from the Minnesota Department of Human Services (DHS). The evacuee monitoring stations use both vehicle and personnel portal monitors and will monitor at least 6 evacuees to demonstrate the 20% EPZ population monitoring capability in a 12-hour period. Hand held survey instruments (Ludlum Model 3s) are used by monitoring staff in the decontamination areas and will be operationally checked prior to use. Reception Center volunteer staff will conduct monitoring and serve as recorders. Volunteer mock evacuees will go through the reception center monitoring, decontamination and registration process. At least one "evacuee" will require decontamination. The decontamination process will be demonstrated by interview with reception center staff. Contamination levels, monitoring and decontamination results will be provided by controllers.

All evacuees who pass through the Reception Center will be processed through the registration station.

Vehicle Monitoring and Decontamination

At least one evacuee vehicle will be monitored and will require decontamination. The vehicle decontamination process will be demonstrated using a combination of portal monitors and hand held survey instruments at the Cottage Grove Public Works Facility located at 8635 West Point Douglas Road South, Cottage Grove.

Controllers will provide contamination and monitoring levels along with decontamination results.

Ambulance personnel may be set up onsite to respond to potentially contaminated and injured evacuees, but this portion will not be evaluated. Evaluation of the ambulance response (MS-1) will occur on Monday July 9th at 6:30 AM at Regions Hospital.

Household pet decontamination and monitoring may be set up, but will not be evaluated as a part of this exercise.

**Goodhue County**

This criterion is not selected during this exercise.

**Dakota County**

This criterion is not selected during this exercise.

Controllers will provide contamination and monitoring levels along with decontamination results.

**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.

**Goodhue County**

Emergency Worker Monitoring and Decontamination will be demonstrated at the Red Wing Fire Department located at 420 Plum St. 55066. Two emergency workers will go through the EWD monitoring, decontamination and registration process. One emergency worker will be required to undergo decontamination. The decontamination process will be demonstrated by interview with Emergency Worker Decontamination Center staff.

One emergency worker vehicle will be monitored and will require decontamination. The vehicle decontamination process will be demonstrated by an interview with the Red Wing Emergency Worker Decontamination Center staff.

A combination of portal monitors and hand held survey instruments (Ludlum Model 3s) will be used by the Emergency Worker Decontamination Center staff to monitor emergency workers, their vehicles and their equipment. The survey instruments will be operationally checked prior to use.

Controllers will provide contamination and monitoring levels along with decontamination results.

**Dakota County**

This criterion was not selected during this exercise.

**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 American Red Cross planning guidelines. Managers demonstrate the procedures to assure that evacuees have been monitored for contamination and have been decontaminated as appropriate prior to entering congregate care facilities.**

**State of Minnesota**

This criterion was not selected during this exercise.

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

**Goodhue County, Dakota 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**

Reception Center MS-1 transportation demonstration

Cottage Grove EMS Ambulance will demonstrate this objective in the parking lot outside Regions Hospital (simulating the reception center) at 6:30 am Monday, July 9, 2012. A controller will provide an inject for a contaminated person being injured at the reception center. The ambulance crew will respond and assess the patient's medical condition. The ambulance crew will wrap the patient up, remove the victim and transport them to the hospital. Communications between the Ambulance and the Hospital will be demonstrated at this time. Ambulance contamination monitoring will be demonstrated by Regions Hospital in St. Paul.

Regions Hospital MS1 hospital demonstration

Regions Hospital (640 Jackson Street, St. Paul MN) will demonstrate this objective at 7:00 am on Monday, July 9, 2012. Upon notification, the hospital personnel will prepare the emergency room area for arrival of a contaminated patient, including appropriate contamination control measures.

Hand held survey instruments will be used by the hospital personnel to monitor the victim. A check source will be used to ensure that the instruments respond. Hand held instruments are calibrated annually.

A contaminated injured evacuee will be delivered by Cottage Grove EMS Ambulance. Hospital radiation specialists will conduct radiological monitoring as necessary. Appropriate equipment and supplies will be available. The setting of priorities between medical treatment and contamination controls will be demonstrated. Samples will be collected and decontamination procedures will be demonstrated. The screening of the ambulance for contamination will be demonstrated at this time.

**Goodhue County and Dakota County**

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

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**2012**  
**Prairie Island Nuclear Generating Plant Exercise Re-demonstration**  
**Extent of Play Agreement**  
**State of Minnesota**

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The exercise re-demonstration will take place on October 9, 2012. This exercise is intended to re-demonstrate *Criterion 3.d.2 – Impediments to evacuation are identified and resolved*. The re-demonstration will involve a person from the Minnesota State Patrol, MnDot and the Planning and Assessment Center (PAC).

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

**State of Minnesota**

The State is responsible for state highways within the EPZ used for evacuation routes and for manning traffic control points on these state highways. The state will re-demonstrate the necessary actions to reroute evacuee traffic as necessary. A controller inject using a map will be used to simulate a traffic impediment on one of the evacuation routes.

The re-demonstration will be conducted as a blend of both Table Top and Functional exercises. It will begin as a table top at the Site Area Emergency ECL and continue through the General Emergency. The Table Top will use a PowerPoint presentation and a facilitator to guide participants through the events leading up to the traffic impediment including the initial PAD. The Table Top portion will conclude at the point where the impediment is given to the Minnesota State Patrol on a map. At this point the re-demonstration will become a functional exercise where the Minnesota State Patrol will demonstrate the necessary actions taken to reroute evacuee traffic around the impediment, out of the EPZ and away from the plume. The re-demonstration will be terminated once the routing around the impediment is completed. There will not be a news release or news conference in regards to the impediment since those were successfully demonstrated in the exercise.

## 2012 Prairie Island REP Exercise Medical Drill Scenario (MS-1) Cottage Grove EMS Ambulance

### I. PROPOSED SCHEDULE

Injury: Left bicep laceration with cuts/abrasions to left elbow and hand

Date: Monday, July 9, 2012

Time: 6:30 AM start time

Location: Regions Hospital, St. Paul, MN

### II. PURPOSE

This simulated medical emergency of a contaminated patient is being conducted in order to exercise and test the emergency medical response and transport by Cottage Grove EMS Ambulance Service to St. Paul Regions Hospital.

### III. CRITERION OF THE EXERCISE

Evaluation Area 6, Sub-element 6.d - Transportation and Treatment of Contaminated Injured Individuals.

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

### IV. SCENARIO/BACKGROUND

#### Background

The exercise will begin at approximately 6:30 am when the Cottage Grove EMS Ambulance is staged in the Regions Hospital parking lot (Controller inject message #1).

#### Ambulance

(Controller inject message #2A and #2B) Cottage Grove EMS will assess, treat and transport the patient while taking into account medical and contamination issues.



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## **2012 Prairie Island REP Exercise Medical Drill Scenario (MS-1) Cottage Grove EMS Ambulance**

### Scenario

An individual evacuating from the Prairie Island 10-mile EPZ comes to the general public reception center. This patient had been fishing near the Prairie Island Nuclear Power Plant when the sirens were sounding. He walked through some tall grass and sand near the fence boundary without being spotted by any field team members or responders. The patient left after seeing field team members in suits near where he had been. He then got back to his vehicle and went to the general public reception center to get checked out. Upon arriving, his vehicle was flagged as contaminated. As he exited his vehicle, the sand on his shoes caused him to slip and fall injuring his left upper arm. In addition, the victim has various minor cuts and scratches on his left elbow and hand. The patient is confused and experiencing intense pain to his left upper arm (the level of pain is about 8 out of 10 with 10 being the highest). The person has contamination on the arms, lower legs, feet and clothing from his proximity to the Nuclear Generating plant during the General Emergency.

**\*\*Any real emergency takes precedence over scenario play. Inform lead controller of any event that comes up during play. Scenario play will be stopped until the real emergency has been taken care of. \*\***

## 2012 Prairie Island REP Exercise Medical Drill Scenario (MS-1) Cottage Grove EMS Ambulance

### CONTROLLER MESSAGE #1

Issued To: Ambulance

Issued From: Controller

\*\*\*\*\*

THIS IS A DRILL

*Do not take any action that will adversely affect normal operations.*

\*\*\*\*\*

Location: St. Paul Regions Hospital parking lot (Simulated)

Message: Initial Conditions

6:30 am

**THIS IS A DRILL** This is the Cottage Grove reception center Incident Commander, requesting Cottage Grove EMS to respond onsite to the general population reception center at Cottage Grove for a patient with a possible broken arm and radiological contamination. **THIS IS A DRILL.**

## 2012 Prairie Island REP Exercise Medical Drill Scenario (MS-1) Cottage Grove EMS Ambulance

### CONTROLLER MESSAGE #2A

Issued To: Ambulance Crew

Issued From: Controller

\*\*\*\*\*

THIS IS A DRILL

*Do not take any action that will adversely affect normal operations.*

\*\*\*\*\*

Note: Do not give this sheet to participants. Give accident information as necessary. **Make them work for the numbers.**

Location: St. Paul Regions Hospital parking lot (Simulated)

Message: Patient Status

#### Vital Signs

Pulse: 110  
Respiration: 24  
Blood pressure: 140/90  
Skin: pale, cool, diaphoretic

#### Other

Male  
Age 42  
Pain is 8 out of 10 (10 being the worst)  
Laceration to left upper arm  
Cuts/abrasions to left elbow and hand  
Adequate neural muscular function

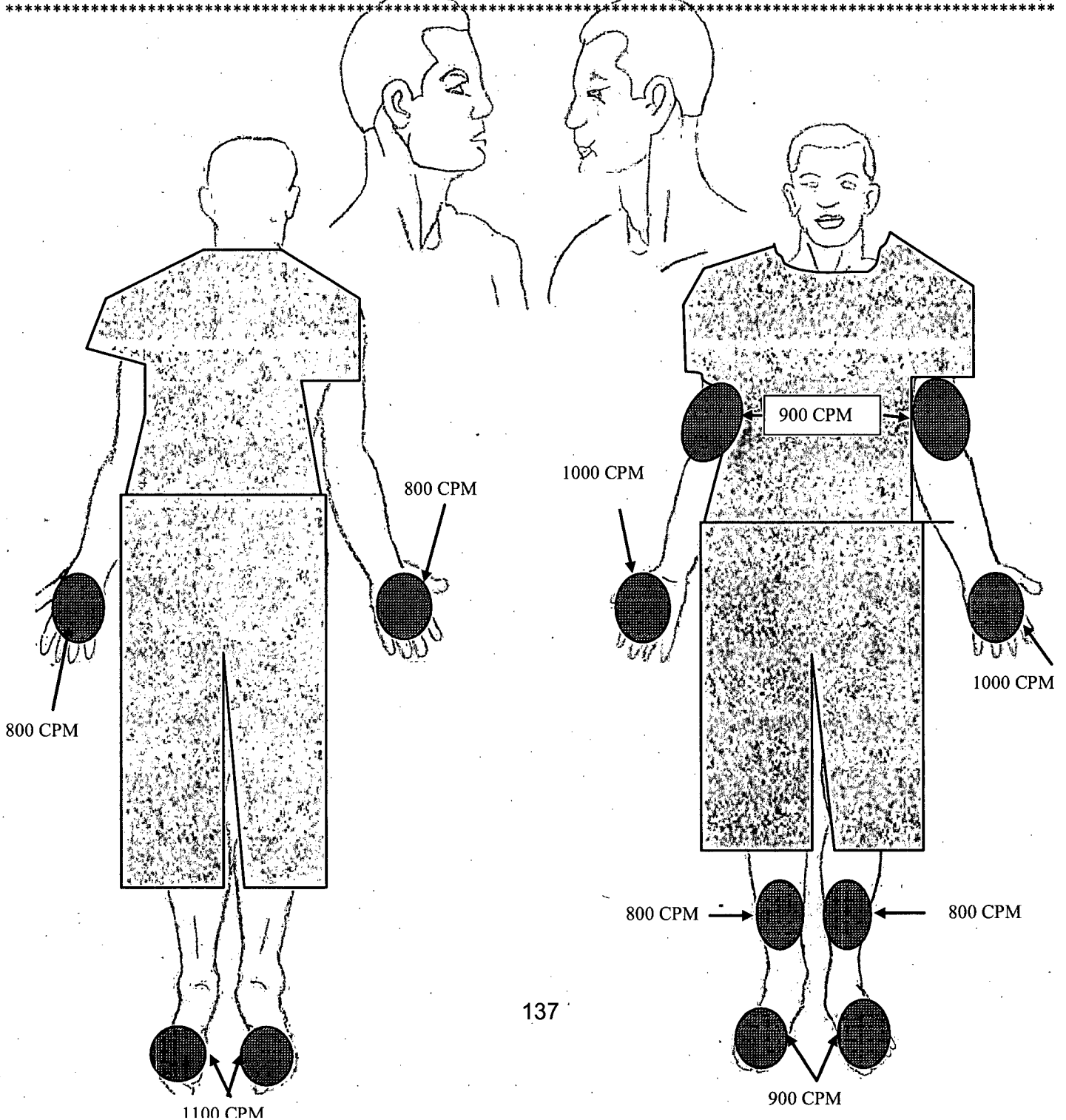
Patient Chief Complaint: Pain and swelling.

Physical: Edema, ecchymosis, and point tenderness. No deformities noted. Neurovascular deficits are not present.

# 2012 Prairie Island REP Exercise Medical Drill Scenario (MS-1) Cottage Grove EMS Ambulance (INITIAL CONTAMINATION LEVELS) CONTROLLER MESSAGE #2B

\*\*\*\*\*  
THIS IS A DRILL.

*Do not take any action that will adversely affect normal operations..*  
\*\*\*\*\*



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**2012 Prairie Island REP Exercise  
Medical Drill Scenario (MS-1)  
Cottage Grove EMS Ambulance**

**CONTROLLER MESSAGE #3**

Issued To: MS-1 Participants

Issued From: Controller

\*\*\*\*\*

THIS IS A DRILL

*Do not take any action that will adversely affect normal operations.*

\*\*\*\*\*

Location: St. Paul Regions Hospital parking lot (Simulated)

Message: Controller terminates MS-1 when all criteria have been met.

## 2012 Prairie Island REP Exercise Medical Drill Scenario (MS-1) Regions Hospital

### I. PROPOSED SCHEDULE

Injury: Laceration on left bicep with cuts/abrasions to left elbow and hand.

Date: Monday, July 9, 2012

Time: 7:00 AM start time

Location: Regions Hospital, St. Paul MN

### II. PURPOSE

This simulated medical emergency of a contaminated patient is being conducted in order to exercise and test the hospital's evaluation and treatment of a contaminated injured patient.

### III. CRITERION OF THE EXERCISE

Evaluation Area 6, Sub-element 6.d - Transportation and Treatment of Contaminated Injured Individuals.

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

### IV. SCENARIO/BACKGROUND

#### Background

A controller, acting as the SEOC Planning and Assessment center, will initiate the exercise (controller message #1) at approximately 7:00am by calling Regional Hospital. Transport will be provided by Cottage Grove EMS Ambulance.

#### Hospital

Regions Hospital will initiate their callout and procedures at approximately 7:00 AM July 9, 2012 after receiving the call from the State Emergency Operations Center (controller will simulate the role of the SEOC). The ambulance personnel will provide communications to the hospital per normal SOPs (may be simulated using controller message #2). Radiological monitoring will be conducted by staff from the hospital (determined in accordance with their procedures). Appropriate equipment and supplies will be available. Radiation Protection Technicians (RPTs)

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## **2012 Prairie Island REP Exercise Medical Drill Scenario (MS-1) Regions Hospital**

will survey the patient (controller message #3B-3E) and the ambulance survey will be conducted by an interview. The exercise will terminate once all criteria are met (controller messages #4 and #5).

### Scenario

An individual evacuating from the Prairie Island 10-mile EPZ comes to the general public reception center. This patient had been fishing near the Prairie Island Nuclear Power Plant when the sirens were sounding. He walked through some tall grass and sand near the fence boundary without being spotted by any field team members or responders. The patient left after seeing field team members in suits near where he had been. He then proceeded to the general public reception center to get checked out. Upon arriving, his vehicle was flagged as contaminated. As he exited his vehicle, the sand on his shoes caused him to fall, injuring his left upper arm. In addition, the victim has abrasions to the left elbow and hand. The patient is confused and experiencing pain to his left upper arm (the level of pain is about 8 out of 10 with 10 being the highest). The person has contamination on the arms, lower legs, feet, and clothing from his proximity to the Nuclear Generating plant during the General Emergency.

**\*\*Any real emergency takes precedence over scenario play. Inform lead controller of any event that comes up during play. Scenario play will be stopped until the real emergency has been taken care of\*\***

Additional: Open injuries require antibiotics and consultation. If consultation/transfer is immediately called for, controller will inject consultation/transfer to occur in 30-60 minutes.

## 2012 Prairie Island REP Exercise Medical Drill Scenario (MS-1) Regions Hospital

### CONTROLLER MESSAGE #1

Issued To: MS-1 Participants Initial call for Hospital and EMS  
(651-254-2990)

Issued From: Controller

.....  
THIS IS A DRILL

*Do not take any action that will adversely affect normal operations.*

.....  
Location: Regions Hospital – St. Paul MN.

Message: Initial Conditions

#### **7:00 AM – For Hospital**

**THIS IS A DRILL** – This is the MN State Emergency Operations Center, due to a General Emergency at the Prairie Island Nuclear Plant, please get ready to potentially receive contaminated injured individuals shortly. There is a release in progress at the plant and there may be contaminated injured victims as early as the next half-hour. The public is being evacuated and the (simulated) reception center is open for evacuees. **THIS IS A DRILL.**

\*\* (Controller will thoroughly explain that this is a drill).



## 2012 Prairie Island REP Exercise Medical Drill Scenario (MS-1) Regions Hospital

### CONTROLLER MESSAGE #2

Issued To: Hospital Emergency Room  
Issued From: Controller – Acting as the Ambulance Personnel

.....  
THIS IS A DRILL

*Do not take any action that will adversely affect normal operations.*

.....  
**7:20 AM**

**\*\*\*THIS IS A DRILL\*\*\*** This is the Cottage Grove EMS Ambulance; we are in route from the Cottage Grove Reception center with a potentially contaminated individual complaining of severe pain in their left upper arm with a laceration and abrasions. The patient is alert and responsive their vitals are:

Pulse	108
Respirations	24
Blood Pressure	136/86
Skin	Pale, Cool, Diaphoretic
Other	Distal pulse present

Our ETA is about 10 minutes **\*\*\*THIS IS A DRILL\*\*\***

## 2012 Prairie Island REP Exercise Medical Drill Scenario (MS-1) Regions Hospital

### CONTROLLER MESSAGE #3A

Issued To: Hospital's Radiation Protection Technician (RPT)  
Issued From: Controller

.....  
THIS IS A DRILL

*Do not take any action that will adversely affect normal operations.*

.....  
Note: Do not give this sheet to the Hospital's RPT. Give accident information as necessary. Make them work for the numbers.

Message: Radiation Survey Results and Physical Condition (Also see diagram)

### Physical Condition

	Arrival at Hospital	After Completing Decon
Pulse	102	80
Respirations	20	18
Blood Pressure	130/84	118/76
Skin	Pale, Cool, Diaphoretic	Normal
Other	Distal pulse present, good neural muscular function	OR Consultation

## 2012 Prairie Island REP Exercise Medical Drill Scenario (MS-1) Regions Hospital

### (INITIAL CONTAMINATION LEVELS) CONTROLLER MESSAGE #3B

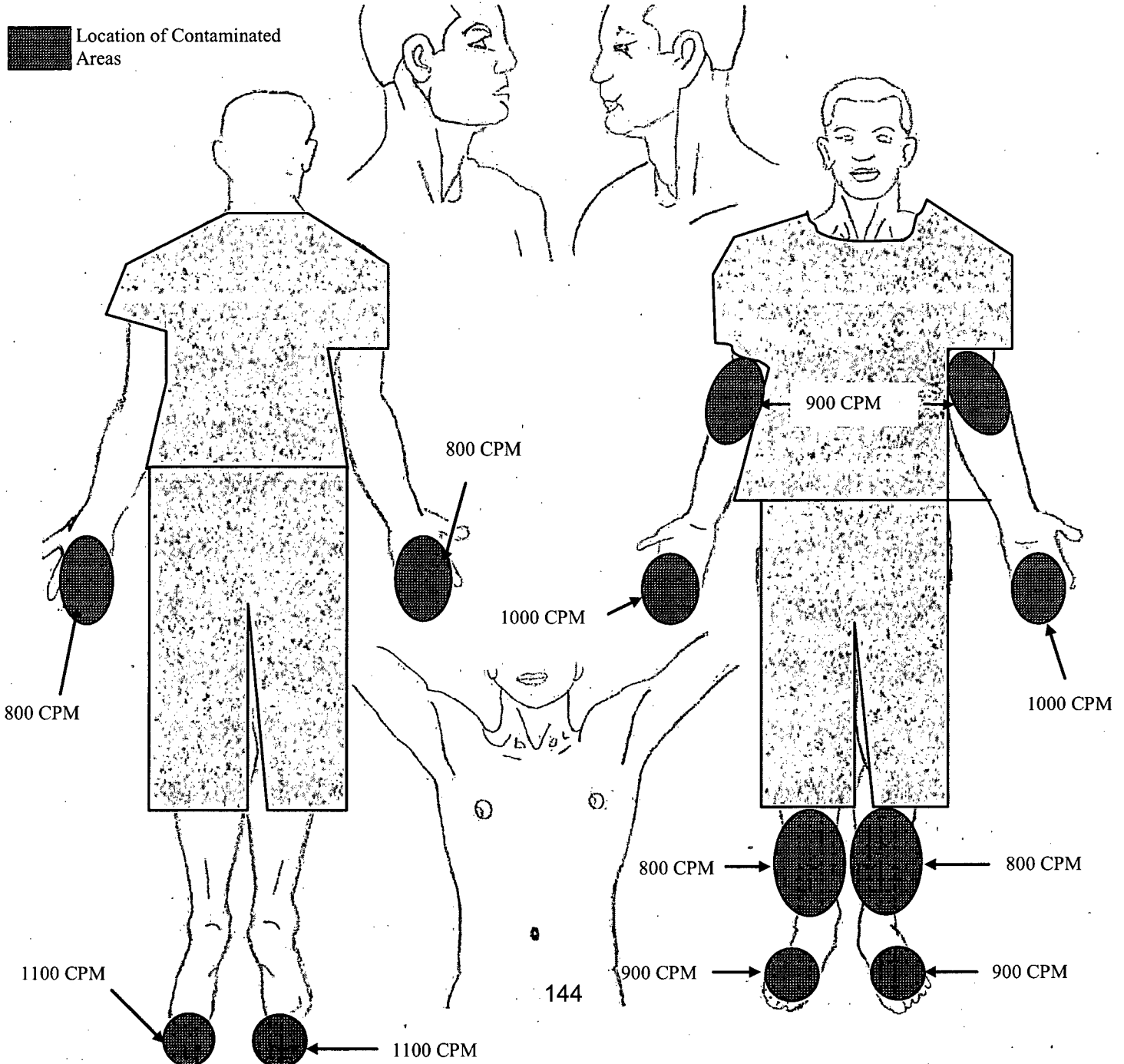
\*\*\*\*\*

THIS IS A DRILL

*Do not take any action that will adversely affect normal operations.*

\*\*\*\*\*

Location of Contaminated Areas



## 2012 Prairie Island REP Exercise Medical Drill Scenario (MS-1) Regions Hospital

### (After 1<sup>st</sup> Decon - Clothes Removal) CONTROLLER MESSAGE #3C

\*\*\*\*\*

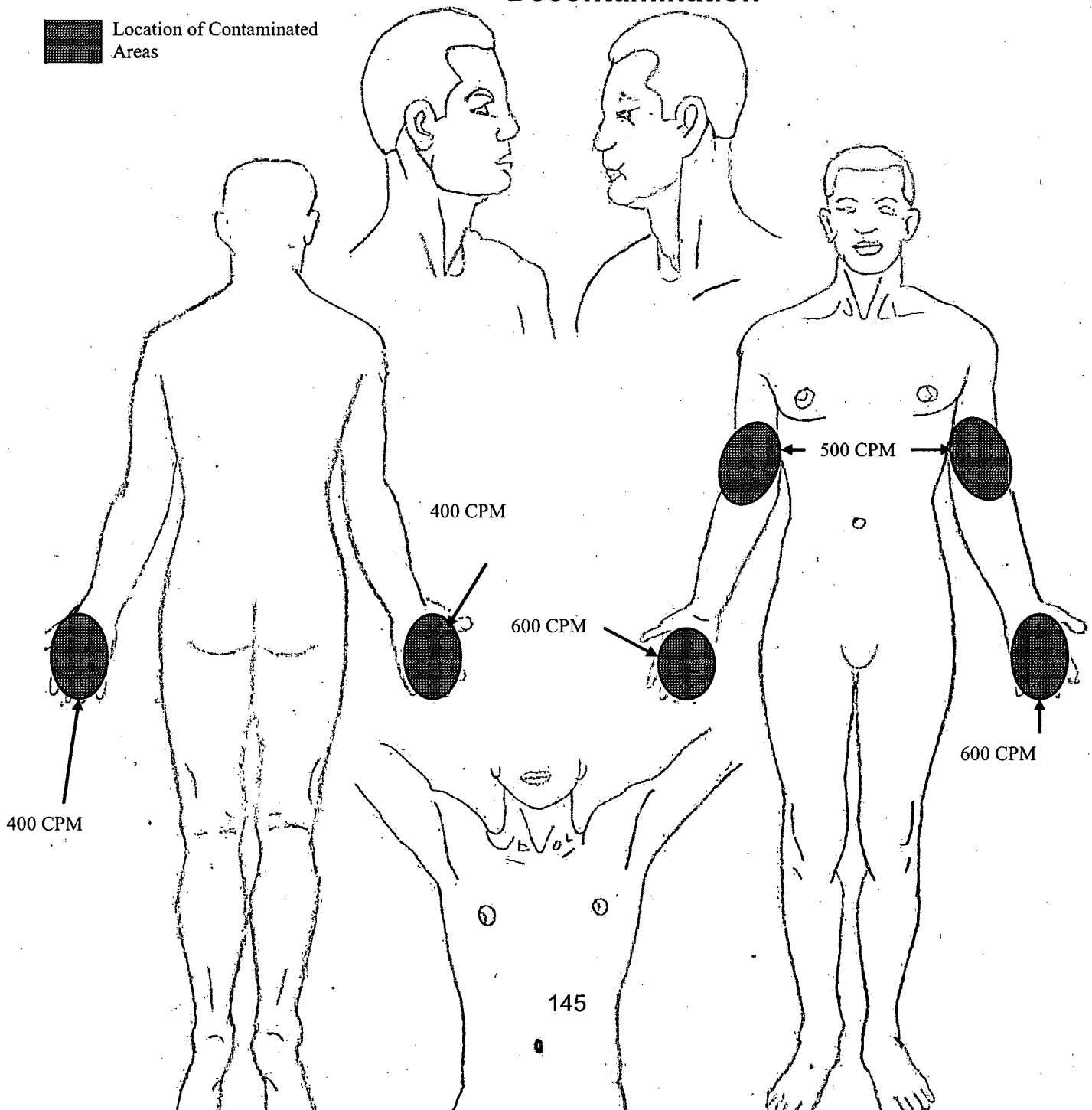
THIS IS A DRILL

*Do not take any action that will adversely affect normal operations.*

\*\*\*\*\*



Location of Contaminated  
Areas



## 2012 Prairie Island REP Exercise Medical Drill Scenario (MS-1) Regions Hospital

### (After 2nd Decon) CONTROLLER MESSAGE #3D

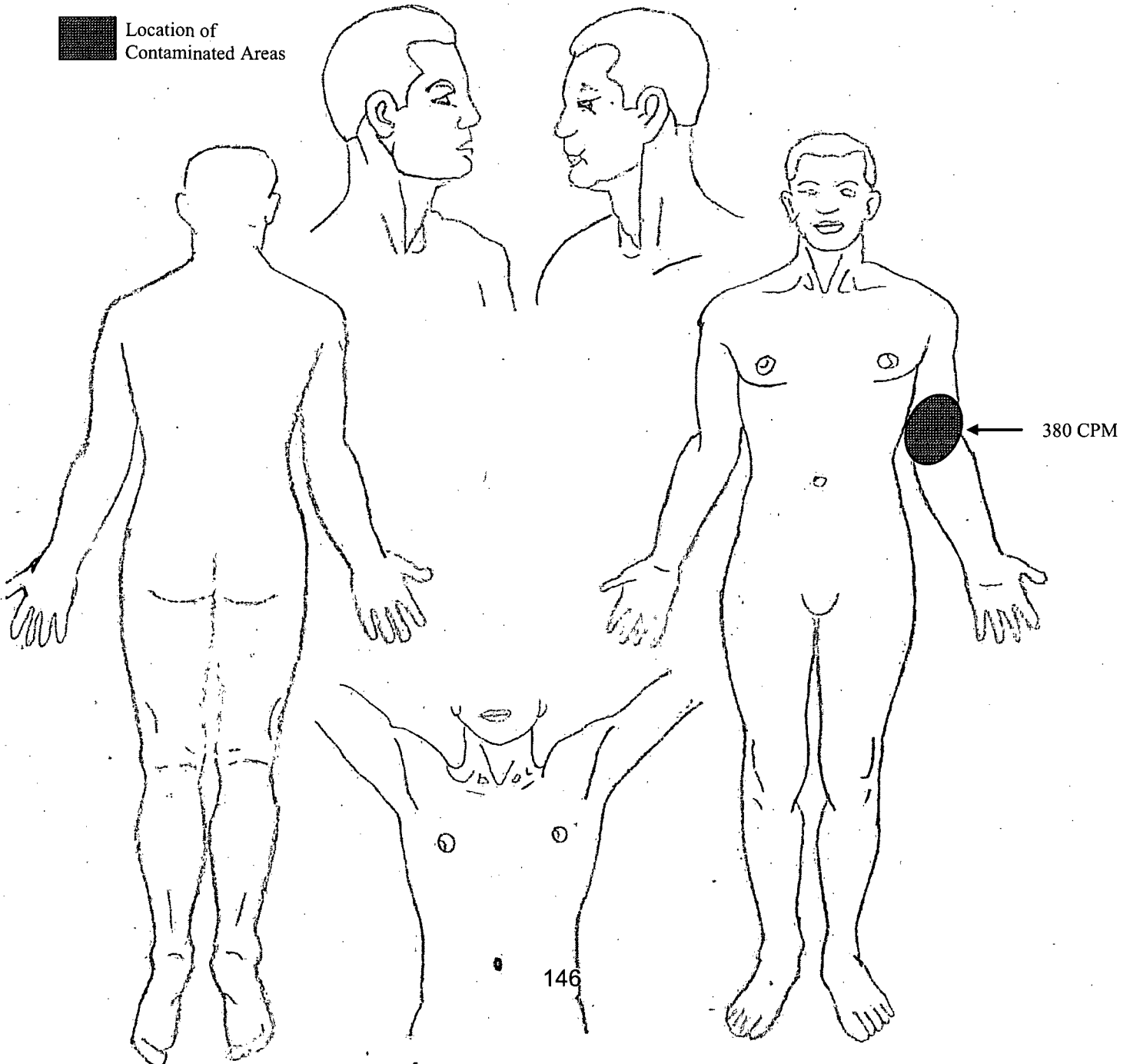
\*\*\*\*\*

THIS IS A DRILL

*Do not take any action that will adversely affect normal operations.*

\*\*\*\*\*

Location of  
Contaminated Areas



# 2012 Prairie Island REP Exercise Medical Drill Scenario (MS-1) Regions Hospital

## (After 3rd Decon) CONTROLLER MESSAGE #3E

\*\*\*\*\*

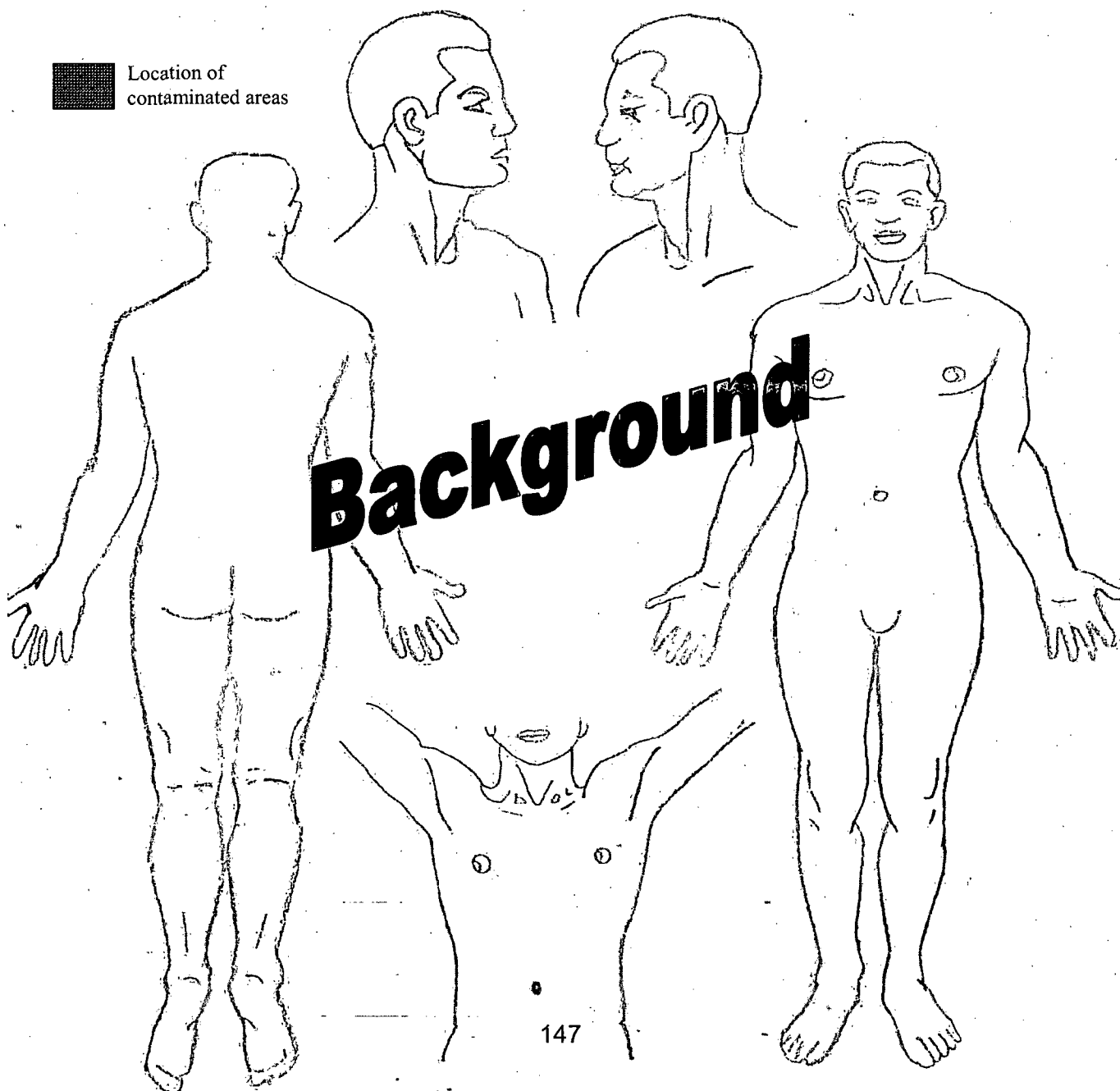
THIS IS A DRILL

*Do not take any action that will adversely affect normal operations.*

\*\*\*\*\*



Location of  
contaminated areas



## 2012 Prairie Island REP Exercise Medical Drill Scenario (MS-1) Regions Hospital

### CONTROLLER MESSAGE #4

Issued To: Radiation Protection Technician (RPT)

Issued From: Controller

\*\*\*\*\*

THIS IS A DRILL

*Do not take any action that will adversely affect normal operations.*

\*\*\*\*\*

Note: Do not give this sheet to radiation protection technician. Give accident information as necessary. Make them work for the numbers.

Location: Radiation Emergency Area

Message: Exit Survey

All areas of patient: Background

All areas of hospital staff that have been in the contaminated area (REA):

Background

Gurney: Background

## 2012 Prairie Island REP Exercise Medical Drill Scenario (MS-1) Regions Hospital

### CONTROLLER MESSAGE #5

Issued To: MS-1 Participants

Issued From: Controller

\*\*\*\*\*

THIS IS A DRILL  
*Do not take any action that will adversely affect normal operations.*

\*\*\*\*\*

Location: Regions Hospital, St. Paul MN

Message: Controller terminates MS-1 when all criterions have been met.



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## WISCONSIN/PIERCE COUNTY EOP FOR PRAIRIE ISLAND

***1a1*** - OROs use effective procedures to alert, notify, and mobilize emergency personnel and activate facilities in a timely manner. (NUREG-0654, A.1.a, e; A.3, 4; C.1, 4, 6; D.4; E.1, 2; H.3, 4)

**STATE OF WISCONSIN:**

As per the Wisconsin Emergency Response Plan, the EOC activation will be elevated at the ALERT ECL. The SRC will respond in real-time and will report to Room 105, 2400 Wright St., Madison, after placing a call to the plant to get information on plant conditions.

The State will provide a 24-hour staffing list (staff to be identified by positions) to the federal evaluator. (RIRP Vol.1, Section2.2)

The liaison(s) from the utility will be pre-positioned in the Madison Area. A representative from the Dept. of Health Services, Radiation Protection Section will NOT be present in the utility EOF during the Prairie Island PPX.

Once the utility makes the initial notification via Warning Center 1 or 2, WEM REP staff or the Duty Officer will call the SRC. The SRC will then contact Prairie Island using the "call-back" number listed on the NARS form, to verify authenticity as well as to get more information. The Dept. of Health Services will also be notified of EOC activation via the E-Sponder alerting system.

The SRC will be notified of the event in sequence by the WEM Duty Officer and the SRC will report to Wisconsin Emergency Management, Room 105, in Madison.

The FOC/MRL is mobilized upon the authorization of the SRC. For the exercise, the FOC/MRL will be pre-staged at a motel in River Falls, WI.

All Restricted Area Field Teams will be pre-positioned at a motel in River Falls, WI and will be notified and activated by the FOC/MRL Field Response Manager to begin play at the appropriate time.

There will be two field teams evaluated and additional non-evaluated field teams involved in training during the exercise, these teams will be identified during the exercise.

Public Information staff will be pre-positioned near the EOC in St. Paul and will report to the JIC after being notified by Pierce County.

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## WISCONSIN/PIERCE COUNTY EOP FOR PRAIRIE ISLAND

### **PIERCE COUNTY:**

The Initial Warning Point, Pierce County Dispatch, is located at 414 W. Main Street, Ellsworth.

The Officer-in-Charge (OIC) will determine and announce when the EOC is operational and fully staffed.

The 24-hour shift change staffing list can be seen in the EOC.

Activities will occur in- and out-of-sequence at various sites around Pierce County, as designated in the appropriate EEG.

***1c1** - Key personnel with leadership roles for the ORO provide direction and control to that part of the overall response effort for which they are responsible. (NUREG-0654/FEMA REP-1, A.1.d; A.2.a, b; A.3; C.4, 6)*

### **STATE OF WISCONSIN:**

Reception Center radiological operations are jointly staffed by a complement of specially trained local volunteers working under the oversight of onsite state radiological staff, mobilized and directed by the SRC. The SRC will work with the affected county in determining when state staff and resources will be deployed in support of RC operations. However, operational success of the RC is only ensured with the committed participation of local jurisdictions having adequate facility resources and properly trained personnel. For a response requiring Reception Center (RC) activation, it is the local county that determines when the RC is activated.

### **PIERCE COUNTY:**

The Pierce County EOC will direct and control emergency operations for Pierce County and coordinate decisions and emergency activities with the state and other appropriate off-site response organizations.

Under the guidance of the State of Wisconsin, Reception Center staff will demonstrate this criterion by monitoring and decontaminating evacuees at the Reception Center.

***1d1** - At least two communication systems are available, at least one operates properly, and communication links are established and maintained with appropriate locations. Communications capabilities are managed in support of emergency operations. (NUREG 0654/FEMA REP-1, F.1, 2)*

---

## WISCONSIN/PIERCE COUNTY EOP FOR PRAIRIE ISLAND

### **STATE OF WISCONSIN:**

The Forward Operating Center/Mobile Radiological Laboratory (FOC/MRL) will communicate between the SRC room and the Field Teams. Communications may be in the form of cellular or VOIP telephone calls and a segregated E-Sponder site (separate from the exercise site).

Participants may include the County Radiological Officer Liaison in the SRC room and the Field Team Response Manager at the FOC/MRL.

The primary means of communication is by commercial telephone. Cellular phones, fax, paper systems, RACES and/or emails may also be used as means of communication with the County EOC and others at the JIC.

Communications between Sacred Heart, the Reception Center, and/or the ambulance service will be by commercial telephone, cellular telephone and/or radio.

### **PIERCE COUNTY:**

Pierce County uses a variety of communication systems. Commercial telephones, cellular telephones, and fax machines will be used to communicate with the utility and other locations. Laptops, e-mail and paper messaging are used to communicate within and outside of the EOC.

RACES volunteers will demonstrate back-up radio communication from the RACES radio room in the EOC.

State staff will monitor E-Sponder in the County EOC. -E-Sponder IS NOT GOING TO BE EVALUATED-

***1e1** - Equipment, maps, displays, dosimetry, KI, and other supplies are sufficient to support emergency operations. (NUREG-0654/FEMA REP-1, H.7, 10; I.7, 8, 9; J.10.a, b, e; J.11, 12; K.3.a; K.5.b)*

### **STATE OF WISCONSIN:**

The State Radiological Coordinator (SRC) holds the responsibility for evaluating the utility's PAR, and considering results of the state's independent assessment when developing a PAR for the counties. The SRC briefs the EOC Manager regarding the PAR to be given to the counties.

---

## WISCONSIN/PIERCE COUNTY EOP FOR PRAIRIE ISLAND

Forward Operating Center is equipped with appropriate communication equipment, computers, maps, and display boards for use when directing teams in the field to identify plumes or plume boundaries. Instruments in the FOC requiring calibration will include the appropriate calibration documentation.

The Sacred Heart Hospital REA staff will use dosimetry and survey meter equipment in accordance with their plans and procedures. Hospital REA staff will also demonstrate decontamination and treatment of a potentially contaminated injured evacuee.

The State will demonstrate the use of equipment, maps and displays to support emergency operations in the SEOC, Room 105 (the SRC Room) and the JIC. The state will use its EOC software, E-Sponder, and GIS.

Survey meter and dosimetry inventory and calibration records will be made available at the FEMA Pre-ex Briefing on Monday July 9, 2012.

The state will demonstrate the availability of potassium iodide (KI). Documentation of the KI expiration date and inventory of the current supply will be provided at the FEMA Pre-ex Briefing.

### **PIERCE COUNTY:**

The County will demonstrate the use of equipment, maps, supplies and displays to support emergency operations in the JIC.

Pierce County will demonstrate their ability to support operations through the use of maps, status boards and other displays as appropriate.

Survey meter and dosimeter calibration records will be available in the EOC on the day of the exercise, July 10, 2012. KI with expiration date information will also be available for inspection in the EOC.

Distribution of emergency worker kits with a briefing for Highway Department workers that may be assigned to traffic control points. Emergency worker kits contain a high and low-range dosimeter, a TLD, KI and forms for record keeping.

Additional KI for emergency workers is stockpiled in the county's EOC.

Reception Center worker kit distribution will be demonstrated. These kits contain only a low-range dosimeter and a TLD as they are located outside of the 10-mile EPZ. KI is not included in Reception Center worker kits.

---

## WISCONSIN/PIERCE COUNTY EOP FOR PRAIRIE ISLAND

Emergency workers' dosimetry kit distribution will be demonstrated at the Sheriff's Conference Room. The Emergency Worker kits contain both a low and high-range dosimeter, a TLD, and KI.

KI for emergency workers is stored in the county's EOC. The KI and expiration date information will be available for inspection on the day of the exercise, July 10, 2012.

Reception Center workers' kit distribution will be demonstrated at the Elmwood School Reception Center. Reception Center personnel are not considered emergency workers and will only receive a low range dosimeter and a TLD, as their work site is located outside of the the 10-mile EPZ. Their Reception Center worker kits do not contain KI.

***2a1** - 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 use of KI, if ORO policy). (NUREG 0654/FEMA REP-1, A.3; C.4, 6; D.4; J.9; J.10.f, m)*

### **STATE OF WISCONSIN:**

The SRC, via the Field Response Manager at the FOC, will manage field team exposure control, and as necessary authorize radiation exposure in excess of pre-designated administrative limits.

The SRC will contact the Field Response Manager (FRM) at the FOC/MRL and instruct restricted area field teams when to take KI based on scenario radiological data or incident classification (ECL) status provided during the course of the exercise. KI is part of the field team kit inventory.

The SRC, based on his/her technical evaluation of the available data, will make recommendations to the Pierce County Radiological Officer for county emergency worker exposure control. This includes recommendations for the ingestion of KI by county emergency workers that will be made by the SRC.

EWs, including the field teams, have a dose limit of 3 Rem whole body (Deep Dose Equivalent). The turn-back value for emergency workers having access to survey meters is 200mR/hr. For an emergency worker who only has access to a DRD, an exposure rate value of 150mR will be used as the turn back value.

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## WISCONSIN/PIERCE COUNTY EOP FOR PRAIRIE ISLAND

State field team members will simulate taking KI at the direction of the SRC. KI for field team members is maintained with the field team's field kits.

The State Radiological Coordinator, working with the County Radiological Officer, will determine the exposure limits necessary for life saving activities.

### **PIERCE COUNTY:**

Pierce County's Radiological Officer (RO) will receive recommendations for the ingestion of KI from the SRC and will make his/her recommendations to the Officer-in-Charge (OIC) of the County. At this point the OIC advises all agencies to recommend the ingestion of KI. The County RO will also evaluate requests from county public safety officials who request an exception to worker exposure limits. The County RO will confer with the SRC for exceptions to exposure limits and make a recommendation to the County OIC. If the scenario does not drive exception to Emergency Worker exposure limits, this evaluation will be accomplished by an interview process.

***2b1** - 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. (NUREG 0654/FEMA REP-1, I.10; Supplement 3)*

### **STATE OF WISCONSIN:**

The SRC staff will evaluate information obtained from:

- 1) The licensee on plant conditions
- 2) Performing independent dose assessment and projections
- 3) Using knowledge of on-site and off-site environmental conditions
- 4) Monitoring plant conditions electronically via ERDS (if available).

Field monitoring data will be provided via controller inject messages through the field teams to the Field Team Coordinator. The SRC will evaluate the data and make any necessary protective action recommendation to the EOC Manager. Generally, early dose assessments performed by state dose assessment personnel will be based upon plant conditions obtained via telephone or facsimile from the affected plant. Later dose assessments and projections will be developed based upon plant conditions and simulated field sampling results (provided by the State Field Teams through the FOC/MRL).

The State SRC will also use dedicated laptop computers for RASCAL dose assessment and/or plume modeling. GIS will be used for display of status maps.

## WISCONSIN/PIERCE COUNTY EOP FOR PRAIRIE ISLAND

### **PIERCE COUNTY:**

Pierce County's Radiological Officer (RO) will receive recommendations for the ingestion of KI from the SRC and will make his/her recommendations to the Officer-in-Charge (OIC) of the County. At this point the OIC advises all agencies to recommend the ingestion of KI. The County RO will also evaluate requests from county public safety officials who request an exception to worker exposure limits. The County RO will confer with the SRC for exceptions to exposure limits and make a recommendation to the County OIC. If the scenario does not drive exception to Emergency Worker exposure limits, this evaluation will be accomplished by an interview process.

**2b2** - *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 use of KI, if ORO policy). (NUREG 0654/FEMA REP-1, A.3; C.4, 6; D.4; J.9; J.10.f, m)*

### **STATE OF WISCONSIN:**

As a "home rule" state, the Governor or his/her designee makes protective action recommendations (PARs), but implementation decisions ultimately reside with the chief elected official (or his/her designee) in the county, who may modify PARs based on local needs or considerations. The EOC Manager, or designee, will contact the Pierce County Emergency Management Director and relay the PAR to ensure that the County has no events taking place that will prohibit implementation of the PAR. Protective action decisions (PADs) are coordinated between the Pierce County EOC and the SEOC (both MN and WI) to ensure that the county is able to effectively implement the PAD at the designated time.

The state of Wisconsin allows for pre-distribution of KI via the annual utility brochure which includes a voucher that allows the holder to redeem it for KI at area Target stores. At the Alert classification level, Target will stop dispensing KI.

### **PIERCE COUNTY:**

Pierce County's chief elected official (County Board Chair) or his/her designee will evaluate protective action recommendations from the State EOC and determine if those recommendations are appropriate for the local situation. Any change to protective action recommendation will be coordinated with the State EOC. Pierce County does not distribute KI to the general public, the state pre-distributes KI to the general public.

**2c1** - *PADs are made, as appropriate, for groups of people with disabilities and those with access/functional needs. (NUREG 0654/FEMA REP-1, D.4; J.9, J.10.d, e)*

---

## WISCONSIN/PIERCE COUNTY EOP FOR PRAIRIE ISLAND

### **STATE OF WISCONSIN:**

If the SRC determines that the situation is deteriorating based upon status information received from the utility and that an evacuation may be recommended, he/she will alert the county so that the county may begin preparing to implement this aspect of their plan.

Protective Action Decisions for special populations are determined by and are the responsibility of the county. Pierce County has no institutionalized individuals in the 10-mile EPZ.

### **PIERCE COUNTY:**

The County RO will receive updates from the SRC and pass the information on to county decision-makers. A Pierce County Human Services representative will demonstrate the ability and resources to determine appropriate protective actions for functional needs populations according to their plans. Pierce County is responsible for identifying transportation needs for functional needs population groups. The County EOC staff maintains a list of people with special transportation needs. The list is available for evaluators to review, but cannot be copied or removed from the county EOC in order to protect confidentiality.

*3a1 - The OROs issue appropriate dosimetry, KI, and procedures, and manage radiological exposure to emergency workers in accordance with the plans/procedures. Emergency workers periodically and at the end of each mission read their dosimeters and record the readings on the appropriate exposure record or chart. Appropriate record-keeping of the administration of KI for emergency workers is maintained. (NUREG-0654/FEMA REP-1, J.10.e; K.3.a, b; K.4)*

### **STATE OF WISCONSIN:**

The State Radiological Coordinator, working with the County Radiological Officer will authorize any exposure limits necessary for life saving activities.

The Sacred Heart Hospital staff will demonstrate the use of dosimetry as a part of the MS-1 facility involving a potentially contaminated evacuee.

This criterion will be demonstrated at the Forward Operations Center/Mobile Radiological Laboratory (FOC/MRL) and by Restricted Area State Field Teams. The briefing will be held at the FOC/MRL operational site (420 W. Grove St., Ellsworth, WI) prior to field team deployment.

The ingestion of KI by Field Team members will be simulated.

### **PIERCE COUNTY:**

The State Radiological Coordinator, working with the County Radiological Officer will authorize any exposure limits necessary for life saving activities.



## WISCONSIN/PIERCE COUNTY EOP FOR PRAIRIE ISLAND

Pierce County Highway Dept. workers assigned to the traffic/access control point will receive Emergency worker kits. They will be briefed by the county Radiological Officer and the Public Health nurse at the Sheriff's Department.

The staff assigned to TACP will demonstrate following the instructions on proper ingestion of KI through simulation.

Reception Center workers are not considered emergency workers and are issued Reception Center worker kits that do not contain KI.

**3b1** - 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. (NUREG 0654/FEMA REP-1, J.10.e, f)

### **PIERCE COUNTY:**

Upon a recommendation to take KI from the SRC, and with the County Radiological Officer's concurrence, Pierce County will demonstrate administering KI by simulating the ingestion of a KI tablet when recommended. There are no institutionalized individuals within the Pierce County EPZ. Distribution of KI to the general public is "pre-distributed" by the State of Wisconsin before a nuclear power plant event occurs.

**3c1** - PADs are implemented for people with disabilities and those with access/functional needs other than schools within areas subject to protective actions. (NUREG 0654/FEMA REP-1, J.10.c, d, e, g)

### **STATE OF WISCONSIN:** **COUNTY RESPONSIBILITY**

### **PIERCE COUNTY:**

Pierce County will demonstrate the ability and resources to implement appropriate protective actions for special populations. The County EOC staff will plan for people with special transportation needs and simulate providing evacuation assistance as driven by the scenario.

Pierce County has seven transportation providers. Pierce County EOC staff will make contact with four of the seven contacts; Plum City School District, Ellsworth School District, Prescott School District, and the Pierce County Aging & Disability Resource Center. The Highway Department will be responsible for assessing the capability and availability of these transportation providers. The demonstration will not require the mobilization of assets, but County EOC staff will be prepared to discuss plans and procedures regarding the implementation of protective actions for functional needs populations. Bus drivers are not considered emergency workers.

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WISCONSIN/PIERCE COUNTY EOP FOR PRAIRIE ISLAND

**3c2-** *OROs/school officials implement protective actions for schools. (NUREG 0654/FEMA REP-1, J.10.c, d, e, g)*

**STATE OF WISCONSIN:**  
**COUNTY RESPONSIBILITY**

**PIERCE COUNTY:**

Pierce County will demonstrate this objective out-of-sequence on Wednesday, July 11, 2012 at 10:00 am, through an interview process at the Prairie View Elementary School, W7375 170th Avenue, Hagar City, WI, with the School Superintendent, Principal, a teacher, a bus driver, and the Transportation Supervisor. The "host school", Spring Valley High School, will also have a representative participating in the interview at the Prairie View Elementary School.

**3d1-** *Appropriate traffic and access control is established. Accurate instructions are provided to traffic and access control personnel. (NUREG 0654/FEMA REP-1, A.3; C.1, 4; J.10.g, j)*

**STATE OF WISCONSIN:**  
**COUNTY RESPONSIBILITY**

**PIERCE COUNTY:**

Pierce County will demonstrate this criterion by interview with a County Highway Department worker on July 10, 2012, at 11:00 am, in the Pierce County EOC.

**4a2** – *Field teams (2 or more) are managed to obtain sufficient information to help characterize the release and to control radiation exposure. (NUREG-0654-FEMA-REP-1, C.1; H.12; I.7, 8, 11; J.10.a)*

**STATE OF WISCONSIN:**

State Field Teams are directed by the SRC, through the Field Response Manager (FRM) and the Field Team Coordinator (FTC) in the FOC. The Field Team Coordinator will provide monitoring/sampling direction and exposure control information directly to the teams. The FOC will provide Controller-injected field measurements reported by the State Field Teams to the SRC.

**PIERCE COUNTY:**  
**STATE RESPONSIBILITY**

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## WISCONSIN/PIERCE COUNTY EOP FOR PRAIRIE ISLAND

**4a3** - *Ambient radiation measurements are made and recorded at appropriate locations, and radioiodine and particulate samples are collected. Teams will move to an appropriate low-background location to determine whether any significant (as specified in the plan and/or procedures) amount of radioactivity has been collected on the sampling media. (NUREG 0654/FEMA REP-1, C.1; I.8, 9; H.12; J.10.a)*

### **STATE OF WISCONSIN:**

Field Team members will take measurements and collect various sample media according to their plans and procedures. They will demonstrate transport of samples and follow chain-of-custody procedures according to their plans and procedures.

### **PIERCE COUNTY:**

#### **STATE RESPONSIBILITY**

**4c1** - *The laboratory is capable of performing required radiological analyses to support PADs. (NUREG-0654/FEMA REP-1, C.1, 3; J.11)*

### **STATE OF WISCONSIN:**

**This will NOT be demonstrated for this exercise.**

### **PIERCE COUNTY:**

#### **STATE RESPONSIBILITY**

**5a1** - *Activities associated with primary alerting and notification of the public are completed in a timely manner following the initial decision by authorized offsite emergency officials to notify the public of an emergency situation. The initial instructional message to the public must include as a minimum the elements required by current REP guidance. (NUREG 0654/FEMA REP-1, E.5, 6, 7)*

### **STATE OF WISCONSIN:**

County responsibility

### **PIERCE COUNTY:**

The States of Wisconsin and Minnesota determine a time to sound the sirens and inform their respective counties. Pierce County will simulate activating its sirens upon recommendation from the State of Wisconsin, in coordination with Goodhue and Dakota Counties, and in conjunction with the State of Minnesota.

Pierce County, along with the affected Minnesota counties, and the states of Wisconsin and Minnesota will select the appropriate EAS message for broadcast. The broadcast of these messages is performed by the State of Minnesota.

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## WISCONSIN/PIERCE COUNTY EOP FOR PRAIRIE ISLAND

**5b1** - *OROs provide accurate emergency information and instructions to the public and news media in a timely manner. (NUREG 0654/FEMA REP-1, E.5, 7; G.3.a, G.4.c)*

### **STATE OF WISCONSIN:**

Pierce County will have a PIO present at the JIC who will work with the state and utility, and other county PIOs to ensure that the interests and concerns of the county are represented in the media briefings. Prior to the JIC becoming operational, the Pierce County PIO will coordinate with the State of Wisconsin PIO to issue a "First Advisory" media notice.

All media releases will be issued from the JIC in St. Paul. All media briefings are held in the Media Briefing Center at the JIC in St. Paul. The County Emergency Management Director can describe procedures and facilities for holding a media briefing, if necessary.

### **PIERCE COUNTY:**

The Pierce County PIO assigned to the JIC will work closely with the PIO at the county EOC to make sure media releases are accurate and coordinated. The County PIO present at the JIC will work with the state, utility and other county PIOs to ensure that the county's interests and concerns are represented in the media briefings.

All media briefings will be done at the JIC in St. Paul, Minnesota.

**6a1** - *The reception center facility has appropriate space, adequate resources, and trained personnel to provide monitoring, decontamination, and registration of evacuees. (NUREG-0654/FEMA REP-1, A.3; C.4; J.10.h; J.12)*

### **STATE OF WISCONSIN:**

The Pierce County reception center demonstration will be performed out-of-sequence at the Elmwood School Reception Center on July 9, 2012 at 7:00 pm.

Radiological monitoring and decontamination of evacuees at the reception center will be demonstrated in accordance with the applicable County reception center procedures. A minimum of six evacuees will be monitored and at least one will require decontamination. State radiological staff is available to assist/support, as needed.

A minimum of two evacuee vehicles will be monitored, one of which will require decontamination.

### **PIERCE COUNTY:**

Pierce County is responsible for registering emergency workers and distributing Reception Center worker kits and conducting briefings.

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## WISCONSIN/PIERCE COUNTY EOP FOR PRAIRIE ISLAND

**6b1** - *The facility/ORO has adequate procedures and resources to accomplish monitoring and decontamination of emergency workers and their equipment and vehicles. (NUREG 0654/FEMA REP-1, K.5.a, b)*

### **STATE OF WISCONSIN:**

Designated Reception Center personnel will demonstrate this criterion by monitoring and decontaminating emergency workers.

A vehicle monitoring station will be set up and operated at the Reception Center, in accordance with the applicable County procedures. A minimum of two EWs will be monitored and at least one will require decontamination. Also, at least one emergency vehicle will be monitored which will require decontamination.

State staff is available to assist/support, as needed.

### **PIERCE COUNTY:**

#### **STATE RESPONSIBILITY-**

**6c1** - *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. (NUREG 0654/FEMA REP-1, J.10.h, J.12)*

### **STATE OF WISCONSIN:**

#### **COUNTY RESPONSIBILITY**

### **PIERCE COUNTY:**

The Congregate Care Center demonstration will be out of sequence, During the Reception Center Drill at the Elmwood School a Red Cross representative will be designated to conduct an interview/walk through of facility with the evaluator.

**6d1** - *The facility/ORO has the appropriate space, adequate resources, and trained personnel to provide transport, monitoring, decontamination, and medical services to contaminated injured individuals. (NUREG 0654/FEMA REP-1, F.2; H.10; K.5.a, b; L.1, 4)*

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## WISCONSIN/PIERCE COUNTY EOP FOR PRAIRIE ISLAND

### **STATE OF WISCONSIN:**

The MS-1 hospital drill will be held out-of-sequence on July 10, 2012 at 9:00 am at Sacred Heart Hospital, Eau Claire, WI. The hospital will demonstrate setting up the Radiological Emergency Area (REA), providing appropriate medical care to the patient, and monitoring and decontamination of the patient.

The Sacred Heart Hospital staff will demonstrate the use of dosimetry as a part of the MS-1 facility involving a potentially contaminated evacuee.

### **PIERCE COUNTY:**

#### **STATE RESPONSIBILITY**

<p style="text-align: center;"><b>State of Wisconsin MS-1 Medical Facility</b></p> <p><b>Location: Sacred Heart Hospital, 900 W. Clairemont Ave. Eau Clair, WI.</b>  <b>Date/Time: July 10, 2012 / 9:00 am</b></p>		
<b>Criterion</b>	<b>Definition</b>	<b>Exercise Demonstration Synopsis</b>
1.d.1	At least two communication systems are available, at least one operates properly, and communication links are established and maintained with appropriate locations. Communications capabilities are managed in support of emergency operations. (NUREG 0654/FEMA REP-1, F.1, 2)	Communications between Sacred Heart, the Reception Center, and/or the ambulance service will be by commercial telephone, cellular telephone and/or radio.
1.e.1	Equipment, maps, displays, dosimetry, KI, and other supplies are sufficient to support emergency operations. (NUREG-0654/FEMA REP-1, H.7, 10; I.7, 8, 9; J.10. a, b, e; J.11, 12; K.3.a; K.5.b)	The Sacred Heart Hospital REA staff will use dosimetry and survey meter equipment in accordance with their plans and procedures. Hospital REA staff will also demonstrate decontamination and treatment of a potentially contaminated injured evacuee.

3.a.1	<p>The OROs issue appropriate dosimetry, KI, and procedures, and manage radiological exposure to emergency workers in accordance with the plans/procedures. Emergency workers periodically and at the end of each mission read their dosimeters and record the readings on the appropriate exposure record or chart. Appropriate record-keeping of the administration of KI for emergency workers is maintained. (NUREG-0654/FEMA REP-1, J.10.e; K.3.a, b; K.4)</p>	<p>The Sacred Heart Hospital staff will demonstrate the use of dosimetry as a part of the MS-1 facility involving a potentially contaminated evacuee.</p>
6.d.1	<p>The facility/ORO has the appropriate space, adequate resources, and trained personnel to provide transport, monitoring, decontamination, and medical services to contaminated injured individuals. (NUREG 0654/FEMA REP-1, F.2; H.10; K.5.a, b; L.1, 4)</p>	<p>The MS-1 hospital drill will be held out-of-sequence on July 10, 2012 at 9:00 am at Sacred Heart Hospital, Eau Claire, WI. The hospital will demonstrate setting up the Radiological Emergency Area (REA), providing appropriate medical care to the patient, and monitoring and decontamination of the patient.</p> <p>The Sacred Heart Hospital staff will demonstrate the use of dosimetry as a part of the MS-1 facility involving a potentially contaminated evacuee.</p>



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