

Dresden Nuclear Power Station
Exercise Report - 2009-03-25
Final Report - Radiological Emergency
Preparedness (REP) Program
2009-07-21





FEMA

Exercise Report

Dresden Nuclear Power Station

Exercise Date: 2009-03-25

Report Date: 2009-07-21

U.S. DEPARTMENT OF HOMELAND SECURITY

Federal Emergency Management Agency

REP Program

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1. Executive Summary

On March 25, 2009, a full participation exercise was conducted in the plume exposure pathway emergency planning zone (EPZ) around the Dresden Nuclear Power Station by the U.S. Department of Homeland Security/Federal Emergency Management Agency (DHS/FEMA). 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 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 March 21, 2007. The qualifying emergency preparedness exercise was conducted on September 30, 1981.

The DHS/FEMA wishes to acknowledge the efforts of the many individuals who participated in this exercise. In the State of Illinois the risk counties of Grundy, Kendall, and Will participated along with the State Government. The State of Indiana did not participate in the exercise since it was not a full participation/ingestion exercise.

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 Report contains the evaluation of the biennial exercise and the evaluation of the following out-of-sequence activities: Illinois State Police Dosimetry Control Officers Briefing, Traffic Access and Control Points, Monitoring and Decontamination of Evacuees and Emergency Workers (EWs), Monitoring and Decontamination of EWs' Equipment, Public Registration, Congregate Care Center Interview, and Protective Actions for Schools (EV-2) Interviews. The State and local organizations except where noted in this report demonstrated knowledge of their emergency response plans and procedures and adequately implemented them.

There was one Deficiency during this exercise identified for the State of Illinois under Criterion 2.b.2 – A decision-making process involving consideration of appropriate factors and necessary coordination is used to make protective action decisions (PAD) for the general public (including the recommendation for the use of KI, if ORO policy)

whereby the process used and performance demonstrated by the State and Grundy County to determine and implement protective action recommendations and decisions, contributed to a delay in the notification of the public to take action. The Deficiency was resolved on July 10, 2009, as identified herein.

There was one Deficiency during this exercise identified for the Grundy County Emergency Operations Center, Public Information Officer under Criterion 5.b.1 – OROs provide accurate emergency information and instructions to the public and the news media in a timely manner whereby the process used and performance demonstrated by the State and Grundy County to determine and implement protective action recommendations and decisions, contributed to a delay in the notification of the public to take action. The Deficiency was resolved on July 1, 2009, as identified herein.

There were no Deficiencies identified during this exercise for Kendall or Will Counties.

There were no new Areas Requiring Corrective Action (ARCAs) identified during this exercise for the State of Illinois, Grundy, Kendall and Will Counties.

There were no ARCAs from previous exercises for the State of Illinois, Grundy, Kendall, and Will Counties that were required to be demonstrated during this exercise.

2. Introduction

On December 7, 1979, the President directed FEMA to assume the lead responsibility for all offsite nuclear planning and response. FEMA's activities are conducted pursuant to 44 Code of Federal Regulations (CFR) Parts 350, 351, and 352. 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.

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

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

- Taking the lead in off-site 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 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 Radiological Assistance Committee (RAC), which is chaired by DHS.

Formal submission of the RERPs for the Dresden Nuclear Power Station to DHS/FEMA by the State of Illinois and involved local jurisdictions occurred on March 31, 1981. Formal approval of these RERPs was granted by FEMA on October 14, 1982, under 44 CFR 350.

A REP Full Participation Plume Exposure Pathway exercise was conducted on March 25, 2009, by FEMA to assess the capabilities of State and local offsite emergency preparedness organizations in implementing their RERPs and procedures to protect the public health and safety during a radiological emergency involving the Dresden Nuclear Power Station. 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. Final determinations are made by the DHS/FEMA – Region V Office with FEMA Headquarters concurrence.

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

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

Section III of this report, entitled "Exercise Overview", presents basic information and data relevant to the exercise. This section of the report contains a description of the plume pathway EPZ, a listing of all participating jurisdictions and functional entities,

which were evaluated, and a tabular presentation of the time of actual occurrence of key exercise events and activities.

Section IV of this report, entitled "Exercise Evaluation and Results," 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 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, if applicable, and the status of the OROs' efforts to resolve them.

3. Exercise Overview

Contained in this section are data and basic information relevant to the March 25, 2009, REP Full Participation Plume Exposure Pathway Exercise to test the offsite emergency response capabilities in the area surrounding the Dresden Nuclear Power Station. This section of the exercise report includes a description of the 10-mile Emergency Planning Zone and a listing of all participating jurisdictions and functional entities which were evaluated, and a tabular presentation of the time of actual occurrence of key exercise events and activities.

3.1. EPZ Description

The Dresden Nuclear Power Station is located on 953 rolling prairie acres in northeast Grundy County on the southern bank of the Illinois River. The topography of the site and its immediate environs is relatively flat, with elevations varying from 509 to 523 feet above sea level. The only significant topographic deviations in the area around the Dresden Station are the Kankakee Bluffs, 591 to 624 feet high, located just northeast of the site.

Portions of the site owned by Exelon Nuclear Corporation are leased for cattle grazing and field crops. Approximately 150 acres are used for grazing. Field crop cultivation occupies about another 300 acres. Recreational activity is in the form of hunting during legally prescribed seasons, with entry controlled by the agricultural lessee. The Emergency Planning Zone (EPZ) for the Dresden Nuclear Power Station consists of a circle with the Dresden Station as the center point. The EPZ extends 10 miles outward in all directions from the Dresden Station for the plume exposure pathway planning zone and 50 miles outward for the ingestion exposure pathway planning zone. In the event of a serious accident at the Dresden Nuclear Power Station, the plume exposure EPZ will be the area in which intensive efforts will be made to notify and protect residents and transient populations from exposure to radiation. This EPZ includes the following counties and municipalities: Grundy County (Illinois), and the municipalities of Carbon Hill, Coal City, Diamond, Minooka, and Morris; Will County (Illinois), and the entire municipalities of Braidwood, Channahon, Elwood, and Wilmington, portions of the municipalities of Joliet and Shorewood, and a small portion of Kendall County (Illinois). The plume EPZ is divided into a total of 16 sub-areas.

The population distribution in the 10-mile EPZ surrounding the Dresden Nuclear Power

Station is relatively low. The 2000 census population for the 10-mile EPZ is divided as follows: Braceville - population 792 located nine miles South from the site; Braidwood - population 5203 located seven miles South Southeast from the site; Carbon Hill - population 392 located three miles South Southeast from the site; Channahon - population 7344 located seven miles Northeast from the site; Coal City – population 4797 located seven miles South from the site; Diamond - population 1393 located eight miles South from the site; Elwood - population 1620 located miles miles East from the site; Minooka - population 3971 located four miles North of the site; Morris – population 11928 located eight miles West of the site; and Wilmington - population 5134 located nine miles Southeast of the site. The majority of the populations for the following jurisdictions reside outside of the ten mile EPZ: Joliet - population 106221 located four miles Northeast from the site and Shorewood - population 7686 located nine miles North Northwest of the site.

Outside of the Station's boundaries there is a substantial amount of industry. Adjacent to the southern boundary of the Station is the Away-From-Reactor Operations Spent Fuel Storage Facility. Four miles southeast of the Dresden Nuclear Power Station is the former Joliet Arsenal (36,000 acres), which now is comprised of two industrial areas: 9,000 acres for a national cemetery; and 23,000 acres for the Midewin National Tallgrass Prairie. The Army is retaining the use of 4,000 acres.

Within the EPZ of the Dresden Nuclear Power Station there are industrial plants, chemical production facilities, petroleum refining industries, warehousing, dry dock facilities and transportation equipment industries

The majority of the remaining area in the Dresden Nuclear Power Station EPZ is used for agriculture, predominately cash grain production. South of the Dresden Nuclear Power Station is approximately twenty-seven (27) square miles of recreational and residential land. The EPZ also contains four state parks and a conservation area. These areas are served by various forms of transportation. Interstate Highway 80 passes five miles to the north of the Dresden Nuclear Power Station, and Interstate Highway 55 passes four miles to the east of the Dresden Nuclear Power Station. The Illinois, Des Plaines and Kankakee Rivers flow near the Dresden Nuclear Power Station. Several railroads operate on tracks running near the Dresden Nuclear Power Station EPZ, including, the Burlington Northern and Santa Fe Railway Company and Amtrak which is four (4) miles east of the Dresden Nuclear Power Station; the Elgin, the Joliet and Eastern Railroad which is one and one-half (1½) miles west of the Dresden Nuclear Power Station; the CSX Transportation Inc., which is four (4) miles northwest of the

Dresden Nuclear Power Station; and the Union Pacific Railroad Company, which is seven (7) miles east of the Dresden Nuclear Power Station.

3.2. Exercise Participants

Agencies and organizations of the following jurisdictions participated in the Dresden Nuclear Power Station exercise:

State Jurisdictions

- Central Management Systems
- Illinois Commerce Commission
- Illinois Department of Agriculture
- Illinois Department of Corrections
- Illinois Department of Human Services
- Illinois Department of Natural Resources
- Illinois Department of Transportation-Highways
- Illinois Emergency Management Agency
- Illinois Environmental Protection Agency
- Illinois Law Enforcement Alert System
- Illinois Liaison Officers
- Illinois National Guard
- Illinois State Attorney General
- Illinois State Police
- Mutual Aid Box Alarm System Division 15
- Office of the State Fire Marshal
- Secretary of State
- Secretary of State Police

Risk Jurisdictions

- Grundy County Administrator
- Grundy County Board Chair
- Grundy County Coal City Community Unit District #1
- Grundy County Emergency Management Agency
- Grundy County Health Department
- Grundy County Highway Department
- Grundy County Land Use
- Grundy County Public Information
- Grundy County Regional Superintendent of Schools

Grundy County Saratoga Community Consolidated School District #60C
Grundy County Sheriff's Department
Grundy County Solid Waste
KENCOM
Kendall County Board Chair
Kendall County Emergency Management Agency
Kendall County Health and Human Services
Kendall County Highway Department
Kendall County Public Information
Kendall County Regional Superintendent of Schools
Kendall County Sheriff's Department
Morris Police Department
Will County Emergency Management Agency
Will County Executive Board
Will County Health Department
Will County Public Information
Will County Sheriff's Department
Will County Troy Community Consolidated School District #30C

Private Jurisdictions

American Red Cross
Chicagoland Speedway
EBS Radio Station WCSJ/WJDK
EBS Radio Station WJOL/WSSR/WCCQ/WRXQ
EBS Radio Station WSPY
Exelon Nuclear
Kankakee Community College
Mazon School District
Morris Hospital
Radio Amateur Civil Emergency Services

3.3. Exercise Timeline

Table 1, on the following page, presents the times at which key events and activities occurred during the REP Full Participation Plume Exposure Pathway exercise conducted on March 25, 2009, for the Dresden Nuclear Power Station.

Table 1 - Exercise Timeline
DATE: 2009-03-25, SITE: Dresden Nuclear Power Station, IL

| Emergency Classification Level or Event | Time Utility Declared | State EOC/SIRC | REAC | UAC - Mazon IEMA Office | JIC | Grundy - EOC | Kendell - EOC |
|---|-----------------------|----------------|------|-------------------------|------|--------------|---------------|
| Unusual Event | N/A | NA | NA | NA | NA | N/A | N/A |
| Alert | 0810 | 0825 | 0824 | 0840 | 0930 | 0849 | 0849 |
| Site Area Emergency | 0943 | 0958 | 0954 | 1005 | 1004 | 1008 | 1008 |
| General Emergency | 1107 | 1123 | 1120 | 1135 | 1130 | 1144 | 1144 |
| Simulated Rad. Release Started | 1106 | 1123 | 1106 | 1135 | 1130 | 1144 | 1144 |
| Simulated Rad. Release Terminated | N/A | NA | N/A | N/A | N/A | N/A | N/A |
| Facility Declared Operational | | 0905 | 0844 | 0840 | 0930 | 0922 | 0921 |
| Declaration of State of Emergency | | 1030 | | N/A | 1039 | 1018 | N/A |
| Exercise Terminated | | 1410 | 1340 | 1326 | 1325 | 1406 | N/A |
| Early Precautionary Actions: The State issued a Livestock Advisory; All livestock are to be sheltered and placed on stored feed and water within the 10-mile EPZ. | | 1030 | 1030 | 1135 | N/A | N/A | N/A |
| 1st Protective Action Recommendation: | | 1133 | 1128 | N/A | N/A | N/A | N/A |
| 1st Protective Action Decision (Grundy County): | | N/A | N/A | N/A | N/A | 1154 | N/A |
| 1st Siren Activation (Grundy County) | | N/A | N/A | N/A | N/A | 1158 | N/A |
| 1st EAS or EBS Message (Grundy County) | | N/A | N/A | N/A | N/A | 1218 | N/A |
| 2nd Protective Action Decision (Grundy County): | | N/A | N/A | N/A | N/A | 1201 | N/A |
| 2nd Siren Activation (Grundy County) | | N/A | N/A | N/A | N/A | 1218 | N/A |
| 2nd EAS or EBS Message (Grundy County) | | N/A | N/A | N/A | N/A | 1218 | N/A |
| 1st Protective Action Decision: | | NA | 1220 | N/A | N/A | N/A | 1149 |
| 1st Siren Activation | | NA | N/A | N/A | N/A | N/A | 1206 |
| 1st EAS or EBS Message | | NA | N/A | N/A | N/A | N/A | 1210 |
| 2nd Protective Action Recommendation: | | 1230 | 1220 | N/A | N/A | N/A | N/A |
| 2nd Protective Action Decision: | | NA | N/A | N/A | N/A | 1249 | N/A |
| 2nd Siren Activation | | NA | N/A | N/A | N/A | 1253 | N/A |
| 2nd EAS or EBS Message | | NA | N/A | N/A | N/A | 1300 | N/A |
| KI Administration Decision, Radiological Assessment Field Teams: | | 1133 | 1128 | 1135 | N/A | N/A | N/A |
| KI Administration Decision, Emergency Workers and Immobile Populations: | | 1133 | 1128 | 1135 | N/A | 1158 | 1156 |

Table 1 - Exercise Timeline
DATE: 2009-03-25, SITE: Dresden Nuclear
Power Station, IL

| Emergency Classification Level or Event | Time Utility Declared | Will - EOC |
|---|-----------------------|------------|
| Unusual Event | N/A | N/A |
| Alert | 0810 | 0848 |
| Site Area Emergency | 0943 | 1011 |
| General Emergency | 1107 | 1150 |
| Simulated Rad. Release Started | 1106 | 1150 |
| Simulated Rad. Release Terminated | N/A | N/A |
| Facility Declared Operational | | 0918 |
| Declaration of State of Emergency | | 1030 |
| Exercise Terminated | | 1406 |
| Early Precautionary Actions: The State issued a Livestock Advisory; All livestock are to be sheltered and placed on stored feed and water within the 10-mile EPZ. | | N/A |
| 1st Protective Action Recommendation: | | N/A |
| 1st Protective Action Decision (Grundy County): | | N/A |
| 1st Siren Activation (Grundy County) | | N/A |
| 1st EAS or EBS Message (Grundy County) | | N/A |
| 2nd Protective Action Decision (Grundy County): | | N/A |
| 2nd Siren Activation (Grundy County) | | N/A |
| 2nd EAS or EBS Message (Grundy County) | | N/A |
| 1st Protective Action Decision: | | 1152 |
| 1st Siren Activation | | 1157 |
| 1st EAS or EBS Message | | 1158 |
| 2nd Protective Action Recommendation: | | N/A |
| 2nd Protective Action Decision: | | N/A |
| 2nd Siren Activation | | N/A |
| 2nd EAS or EBS Message | | N/A |
| KI Administration Decision, Radiological Assessment Field Teams: | | N/A |
| KI Administration Decision, Emergency Workers and Immobile Populations: | | 1150 |

4. 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 March 25, 2009, REP Full Participation Plume Pathway Exercises to test the off-site emergency response capabilities of State and local governments in the 10-mile EPZ surrounding the Dresden Nuclear Power Station.

Each jurisdiction and functional entity was evaluated based on its demonstration of exercise criteria delineated in Federal Register Notice: Vol. 67, No. 80, dated April 25, 2002. Detailed information on the exercise criteria and the extent of play agreement used in this exercise are found in Appendix 3 of this report.

4.1. Summary Results of Exercise Evaluation

The matrix presented in Table 2, on the following page(s), presents the status of all exercise criteria from Federal Register Notice: Vol. 67, No. 80, dated April 25, 2002, which were scheduled for demonstration during this exercise by all participating jurisdictions and functional entities. Exercise criteria are listed by number and the demonstration status of those criteria are indicated by the use of the following letters:

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

D – Deficiency assessed

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

N – Not Demonstrated (Reason explained in Section IV.B.)

Blank – Not scheduled for demonstration

Table 2 - Summary of Exercise Evaluation (3 pages)

| DATE: 2009-03-25 SITE: Dresden Nuclear Power Station, IL A: ARCA, D: Deficiency, M: Met, N: Not Demonstrated | | State - IWP | State EOC/SIRC | State Public Inquiry Phone Bank | REAC | UAC - Chicagoland Speedway | RAFT | M&DEWE - RAFT | FT - 1 | FT - 2 | EOF | JIC | IL State Liason - Grundy |
|--|-----|-------------|----------------|---------------------------------|------|----------------------------|------|---------------|--------|--------|-----|-----|--------------------------|
| Emergency Operations Management | | | | | | | | | | | | | |
| Mobilization | 1a1 | M | M | | M | | M | | M | M | M | | |
| Facilities | 1b1 | | | | | | | | | | | | |
| Direction and Control | 1c1 | | M | | M | M | M | | | | | M | M |
| Communications Equipment | 1d1 | M | M | | M | M | M | | M | M | M | M | M |
| Equip & Supplies to support operations | 1e1 | | M | | M | M | M | M | M | M | M | M | |
| Protective Action Decision Making | | | | | | | | | | | | | |
| Emergency Worker Exposure Control | 2a1 | | M | | M | | | | | | | | |
| Radiological Assessment and PARs | 2b1 | | M | | M | | | | | | | | |
| Decisions for the Plume Phase -PADs | 2b2 | | M | | M | M | | | | | | | |
| PADs for protection of special populations | 2c1 | | M | | M | | | | | | | | |
| Rad Assessment and Decision making for the Ingestion Exposure Pathway | 2d1 | | | | | | | | | | | | |
| Rad Assessment and Decision making concerning Relocation, Reentry, and Return | 2e1 | | | | | | | | | | | | |
| Protective Action Implementation | | | | | | | | | | | | | |
| Implementation of emergency worker exposure control | 3a1 | | | | | | | M | M | M | | | |
| Implementation of KI decision | 3b1 | | | | | | | | M | M | | | |
| Implementation of protective actions for special populations - EOCs | 3c1 | | | | | | | | | | | | |
| Implementation of protective actions for Schools | 3c2 | | | | | | | | | | | | |
| Implementation of traffic and access control | 3d1 | | | | | M | | | | | | | |
| Impediments to evacuation are identified and resolved | 3d2 | | | | | M | | | | | | | |
| Implementation of ingestion pathway decisions - availability/use of info | 3e1 | | | | | | | | | | | | |
| Materials for Ingestion Pathway PADs are available | 3e2 | | | | | | | | | | | | |
| Implementation of relocation, re-entry, and return decisions | 3f1 | | | | | | | | | | | | |
| Field Measurement and Analysis | | | | | | | | | | | | | |
| Adequate Equipment for Plume Phase Field Measurements | 4a1 | | | | | | | | M | M | | | |
| Field Teams obtain sufficient information | 4a2 | | | | | | M | | | | | | |
| Field Teams Manage Sample Collection Appropriately | 4a3 | | | | | | M | | M | M | | | |
| Post plume phase field measurements and sampling | 4b1 | | | | | | | | | | | | |
| Laboratory operations | 4c1 | | | | | | | | | | | | |
| Emergency Notification and Public Info | | | | | | | | | | | | | |
| Activation of the prompt alert and notification system | 5a1 | | M | | | | | | | | | | M |
| Activation of the prompt alert and notification system - Fast Breaker | 5a2 | | | | | | | | | | | | |
| Activation of the prompt alert and notification system - Exception areas | 5a3 | | | | | | | | | | | | |
| Emergency information and instructions for the public and the media | 5b1 | | M | M | M | M | | | | | | | M |
| Support Operations/Facilities | | | | | | | | | | | | | |
| Mon / decon of evacuees and emergency workers, and registration of evacuees | 6a1 | | | | | | | | | | | | |
| Mon / decon of emergency worker equipment | 6b1 | | | | | | | M | | | | | |
| Temporary care of evacuees | 6c1 | | | | | | | | | | | | |
| Transportation and treatment of contaminated injured individuals | 6d1 | | | | | | | | | | | | |

Table 2 - Summary of Exercise Evaluation (Continued. page 2/3)

| DATE: 2009-03-25 SITE: Dresden Nuclear Power Station, IL A: ARCA, D: Deficiency, M: Met, N: Not Demonstrated | | IL State Rad Advisor - Grundy | IL State Liaison - Kendall | IL State Rad Advisor - Kendall | IL State Liaison - Will | IL State Rad Advisor - Will | DCO Briefing - ISP District 5 HQ | TACP - ISP District 5 | DEEW - Kankakee Comm Col | M&DEWE - Kankakee Comm Col | Pub Reg - Kankakee Comm Col | CCC - Kankakee Comm Col | Grundy - IWP |
|--|-----|-------------------------------|----------------------------|--------------------------------|-------------------------|-----------------------------|----------------------------------|-----------------------|--------------------------|----------------------------|-----------------------------|-------------------------|--------------|
| Emergency Operations Management | | | | | | | | | | | | | |
| Mobilization | 1a1 | M | | M | | M | | | | | | | M |
| Facilities | 1b1 | | | | | | | | | | | | |
| Direction and Control | 1c1 | M | M | M | M | M | | | | | | | |
| Communications Equipment | 1d1 | | M | | M | | | M | | | | | M M |
| Equip & Supplies to support operations | 1e1 | M | | M | | M | M | M | M | M | M | | |
| Protective Action Decision Making | | | | | | | | | | | | | |
| Emergency Worker Exposure Control | 2a1 | | | | | | | | | | | | |
| Radiological Assessment and PARs | 2b1 | | | | | | | | | | | | |
| Decisions for the Plume Phase -PADs | 2b2 | M | | M | | | | | | | | | |
| PADs for protection of special populations | 2c1 | | | | | M | | | | | | | |
| Rad Assessment and Decision making for the Ingestion Exposure Pathway | 2d1 | | | | | | | | | | | | |
| Rad Assessment and Decision making concerning Relocation, Reentry, and Return | 2e1 | | | | | | | | | | | | |
| Protective Action Implementation | | | | | | | | | | | | | |
| Implementation of emergency worker exposure control | 3a1 | | | | | | M | M | M | M | | | |
| Implementation of KI decision | 3b1 | | | | | | M | M | | | | | |
| Implementation of protective actions for special populations - EOCs | 3c1 | | | | | | | | | | | | |
| Implementation of protective actions for Schools | 3c2 | | | | | | | | | | | | |
| Implementation of traffic and access control | 3d1 | | | | | | | M | | | | | |
| Impediments to evacuation are identified and resolved | 3d2 | | | | | | | | | | | | |
| Implementation of ingestion pathway decisions - availability/use of info | 3e1 | | | | | | | | | | | | |
| Materials for Ingestion Pathway PADs are available | 3e2 | | | | | | | | | | | | |
| Implementation of relocation, re-entry, and return decisions | 3f1 | | | | | | | | | | | | |
| Field Measurement and Analysis | | | | | | | | | | | | | |
| Adequate Equipment for Plume Phase Field Measurements | 4a1 | | | | | | | | | | | | |
| Field Teams obtain sufficient information | 4a2 | | | | | | | | | | | | |
| Field Teams Manage Sample Collection Appropriately | 4a3 | | | | | | | | | | | | |
| Post plume phase field measurements and sampling | 4b1 | | | | | | | | | | | | |
| Laboratory operations | 4c1 | | | | | | | | | | | | |
| Emergency Notification and Public Info | | | | | | | | | | | | | |
| Activation of the prompt alert and notification system | 5a1 | M | M | M | M | M | | | | | | | |
| Activation of the prompt alert and notification system - Fast Breaker | 5a2 | | | | | | | | | | | | |
| Activation of the prompt alert and notification system - Exception areas | 5a3 | | | | | | | | | | | | |
| Emergency information and instructions for the public and the media | 5b1 | | | | | | | | | | | | |
| Support Operations/Facilities | | | | | | | | | | | | | |
| Mon / decon of evacuees and emergency workers, and registration of evacuees | 6a1 | | | | | | | | M | M | M | | |
| Mon / decon of emergency worker equipment | 6b1 | | | | | | | | | M | | | |
| Temporary care of evacuees | 6c1 | | | | | | | | | | | M | |
| Transportation and treatment of contaminated injured individuals | 6d1 | | | | | | | | | | | | |

Table 2 - Summary of Exercise Evaluation (Continued. page 3/3)

| DATE: 2009-03-25 SITE: Dresden Nuclear Power Station, IL A: ARCA, D: Deficiency, M: Met, N: Not Demonstrated | | | | | | | | | | | | | |
|--|-----|--------------|--------------------------|----------------------------|---------------------------|---------------|---------------|----------------|----------------------|------------|------------|----------------------------------|---------------------------------|
| | | Grundy - EOC | Grundy - EBS - WCSJ/WJDK | Grundy - EV-2 Coal City SD | Grundy - EV-2 Saratoga SD | Kendall - IWP | Kendall - EOC | TACP - Kendall | Kendall - EBS - WSPY | Will - IWP | Will - EOC | Will - EAS - WJOL/WSSR/WCCQ/WRXQ | Will - EV-2 Dresden Troy SD 30C |
| Emergency Operations Management | | | | | | | | | | | | | |
| Mobilization | 1a1 | 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 | M | M | M | M |
| Equip & Supplies to support operations | 1e1 | M | | M | M | | M | M | | | M | | M |
| Protective Action Decision Making | | | | | | | | | | | | | |
| Emergency Worker Exposure Control | 2a1 | | | | | | | | | | | | |
| Radiological Assessment and PARs | 2b1 | | | | | | | | | | | | |
| Decisions for the Plume Phase -PADs | 2b2 | M | | | | | M | | | | M | | |
| PADs for protection of special populations | 2c1 | M | | | | | M | | | | M | | |
| Rad Assessment and Decision making for the Ingestion Exposure Pathway | 2d1 | | | | | | | | | | | | |
| Rad Assessment and Decision making concerning Relocation, Reentry, and Return | 2e1 | | | | | | | | | | | | |
| Protective Action Implementation | | | | | | | | | | | | | |
| Implementation of emergency worker exposure control | 3a1 | M | | M | M | | M | M | | | | | M |
| Implementation of KI decision | 3b1 | M | | M | M | | M | M | | | | | M |
| Implementation of protective actions for special populations - EOCs | 3c1 | M | | | | | M | | | | | | |
| Implementation of protective actions for Schools | 3c2 | M | | M | M | | M | | | | | | M |
| Implementation of traffic and access control | 3d1 | | | | | | M | M | | | | | |
| Impediments to evacuation are identified and resolved | 3d2 | M | | | | | M | | | | | | |
| Implementation of ingestion pathway decisions - availability/use of info | 3e1 | | | | | | | | | | | | |
| Materials for Ingestion Pathway PADs are available | 3e2 | | | | | | | | | | | | |
| Implementation of relocation, re-entry, and return decisions | 3f1 | | | | | | | | | | | | |
| Field Measurement and Analysis | | | | | | | | | | | | | |
| Adequate Equipment for Plume Phase Field Measurements | 4a1 | | | | | | | | | | | | |
| Field Teams obtain sufficient information | 4a2 | | | | | | | | | | | | |
| Field Teams Manage Sample Collection Appropriately | 4a3 | | | | | | | | | | | | |
| Post plume phase field measurements and sampling | 4b1 | | | | | | | | | | | | |
| Laboratory operations | 4c1 | | | | | | | | | | | | |
| Emergency Notification and Public Info | | | | | | | | | | | | | |
| Activation of the prompt alert and notification system | 5a1 | M | M | | | | M | M | M | M | M | | |
| Activation of the prompt alert and notification system - Fast Breaker | 5a2 | | | | | | | | | | | | |
| Activation of the prompt alert and notification system - Exception areas | 5a3 | | | | | | | | | | | | |
| Emergency information and instructions for the public and the media | 5b1 | M | | | | | M | | | | M | | |
| Support Operations/Facilities | | | | | | | | | | | | | |
| Mon / decon of evacuees and emergency workers, and registration of evacuees | 6a1 | | | | | | | | | | | | |
| Mon / decon of emergency worker equipment | 6b1 | | | | | | | | | | | | |
| Temporary care of evacuees | 6c1 | | | | | | | | | | | | |

4.2. Status of Jurisdictions Evaluated

4.2.1. Illinois Jurisdictions

4.2.1.1. State Initial Warning Point

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

4.2.1.2. State Emergency Operations Center/State of Illinois Response Center

- 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, 5.a.1, 5.b.1.
- b. AREAS REQUIRING CORRECTIVE ACTION: None
- c. DEFICIENCY: 2.b.2.

ISSUE NO.: 20-09-2b2-D-01

CRITERION: A decision-making process involving consideration of appropriate factors and necessary coordination is used to make PADs for the general public including KI if ORO policy.

CONDITION: The initial release of radioactive materials from the DNPS began at 1106 hours. The peak release rates by scenario were between 1130-1145 hours, and actually occurred at 1140 hours. The meteorological data indicated a constant wind speed of 4 mph, the affected Sub-Areas needed to be evacuated as quickly as possible to protect the public from being immersed in a radioactive plume.

By 1210 hours, the plume segment which exceeded the PAGs traveled approximately 2.0 miles from the DNPS site boundary. From the time the

State verified the Release occurring at 1123 hours until the time Grundy County had verified receipt of the State's recommended PAR at 1144 hours a total of 21 minutes had elapsed. During this time it took 11 minutes to transmit the State's PAR to the Counties. These 11 minutes contributed to the overall 71 minutes that transpired from the release occurring to the time Grundy County began notification of the General Public through broadcast by EBS Station - WCSJ/WJDK at 1218 hours.

POSSIBLE CAUSE: The process used and performance demonstrated by the State and Grundy County to determine and implement protective action recommendations and decisions, contributed to a delay in the notification of the public to take action.

REFERENCE: NUREG 0654/FEMA-REP-1, J.9
NUREG 0654/FEMA-REP-1, J.10.f, m

EFFECT: The public could have been unnecessarily exposed to additional radiation released from the Dresden Nuclear Power Station.

CORRECTIVE ACTION DEMONSTRATED: Review process and performance and make necessary changes to assure that the General Public receives PARs in a timely manner.

CORRECTIVE ACTION TAKEN:

On June 30, 2009, a telephonic conference was held between the Illinois Emergency Management Agency (IEMA), the Exelon Corporation, and the Federal Emergency Management Agency, Region V (FEMA RV). The purpose of the call was to determine the actions to be taken to resolve the Deficiency identified under criterion 2.b.2, State Incident Response Center, during the March 25, 2009, REP Exercise.

The agreement between IEMA and FEMA RV was for IEMA to submit a letter to FEMA RV which will indicate their commitment to develop an improved process for notice to the public in the case of a radiological event at the Dresden Nuclear Power Station. This process is to be developed, tested and ready for implementation no longer than 90 days for the acknowledgment of receipt by FEMA RV.

On July 7, 2009, the commitment letter from IEMA was received at FEMA RV. After review of the IEMA letter an acknowledgement letter from FEMA RV was prepared and sent to IEMA on July 10, 2009. This letter indicated that the 90 day period would commence on July 10, 2009.

The Illinois Emergency Management Agency complied with the decisions made at the June 30th conference call. The submittal of their letter committing to the development of an improved process within the 90 days period resolves the identified Deficiency for criterion 2.b.2.

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

4.2.1.3. Public Inquiry Phone Bank

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

4.2.1.4. Radiological Emergency Assessment Center

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

4.2.1.5. Unified Area Command - Chicagoland Speedway

- a. MET: 1.c.1, 1.d.1, 1.e.1, 2.b.2, 3.d.1, 3.d.2, 5.b.1.

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

4.2.1.6. Radiological Assessment Field Team

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

4.2.1.7. Monitoring and Decontamination of Emergency Worker Equipment at the RAFT

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

4.2.1.8. Field Team 1

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

4.2.1.9. Field Team 2

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

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

4.2.1.10. Emergency Operations Facility

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

4.2.1.11. Joint Information Center

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

4.2.1.12. Illinois State Liaison - Grundy County

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

4.2.1.13. Illinois State Radiological Advisor - Grundy County

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

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

4.2.1.14. Illinois State Liaison - Kendall County

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

4.2.1.15. Illinois State Radiological Advisor - Kendall County

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

4.2.1.16. Illinois State Liaison - Will County

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

4.2.1.17. Illinois State Radiological Advisor - Will County

- a. MET: 1.a.1, 1.c.1, 1.e.1, 2.c.1, 5.a.1.
- b. AREAS REQUIRING CORRECTIVE ACTION: None

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

4.2.1.18. Dosimetry Control Officer's Briefing - Illinois State Police District 5 Headquarters

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

4.2.1.19. Traffic and Access Control Point at the Illinois State Police District 5 Headquarters

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

4.2.1.20. Decontamination of Evacuees and Emergency Workers - Kankakee Community College

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

4.2.1.21. Monitoring and Decontamination of Emergency Worker Equipment - Kankakee Community College

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

4.2.1.22. Public Registration - Kankakee Community College

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

4.2.1.23. Congregate Care Center - Kankakee Community College

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

4.2.2. Risk Jurisdictions

4.2.2.1. Grundy County - Initial Warning Point

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

4.2.2.2. Grundy County - Emergency Operations Center

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

ISSUE NO.: 20-09-5b1-D-02

CRITERION: OROs provide accurate emergency information and instructions to the public and the news media in a timely manner. (NUREG-0654, E.5., 7., G.3.a, G.4.a.b.c)

CONDITION: The initial release of radioactive materials from the DNPS began at 1106 hours. The peak release rates by scenario were between 1130-1145 hours, and actually occurred at 1140 hours. The meteorological data indicated a constant wind speed of 4 mph, the affected Sub-Areas needed to be evacuated as quickly as possible to protect the public from being immersed in a radioactive plume.

By 1210 hours, the plume segment which exceeded the PAGs traveled approximately 2.0 miles from the DNPS site boundary.

At 1144 Grundy County officials verified State NARS Message No. 3, which included a recommendation to evacuate Grundy County Sub-Areas 1 and 4. A total of 34 minutes transpired before initiation of the EBS message including an evacuation recommendation for the General Public. These 34 minutes contributed to the overall 71 minutes that transpired from the release

occurring to the time Grundy County began notification of the General Public through broadcast by EBS Station - WCSJ/WJDK at 1218 hours.

POSSIBLE CAUSE: The process used and performance demonstrated by the State and Grundy County to determine and implement protective action recommendations and decisions, contributed to a delay in the notification of the public to take action.

REFERENCE: NUREG-0654, E.5., E.7., G.3.a, G.4.a.b.c

EFFECT: The public could have been unnecessarily exposed to additional radiation released from the Dresden Nuclear Power Station.

CORRECTIVE ACTION DEMONSTRATED: Review process and performance and make necessary changes to assure that the General Public receives PADs in a timely manner.

CORRECTIVE ACTIONS TAKEN

GRUNDY COUNTY EOC

The Grundy County Emergency Operations Center (EOC) successfully demonstrated its capability to provide accurate and timely information to the media and the public in the re-demonstration drill to rectify the Deficiency detected during the Dresden Nuclear Power Station Exercise conducted on March 25, 2009. The re-demonstration was held on July 1, 2009, at the Grundy County Emergency Operations Center.

The Grundy County EOC had the necessary staff pre-positioned and activated at the Grundy County EOC for this re-demonstration exercise by 0900 hours. Radio station WCSJ/WJDK was also staffed to assist in the re-demonstration.

The Controller (IEMA) provided a hand-out containing general information regarding the situation and the actions taken up to the point of play just prior to the re-demonstration drill commencing. This information included two previous NARS messages (State Message No.1 and No.2) which brought the situation up to an Alert condition for the Dresden Nuclear Power Station.

At approximately 0915 hours, the County EOC Communications Center received notification of a change in the On-site Conditions via NARS State Message No. 3. This message was verified at 0920 hours and provided to the Grundy County EMA Director. This message identified that a General Emergency Classification Level (ECL) had been declared at the site and there was not a radioactive release. The State's Protective Action Recommendation (PAR) identified that Sub-Areas 1, 3, and 4, were to be evacuated. The EM Director and County Board Representative concurred with the State's recommendation to evacuate Sub-Areas 1 and 4 (which are in Grundy County). At 0926 hours, simulated coordination (telephone call to a State Controller) was made with the other two affected counties (Will and Kendall) for the broadcast of Emergency Broadcast System (EBS) messages and sounding of sirens.

The County Media Message Manager prepared the pre-scripted messages regarding the evacuations of Sub-Areas 1 and 4, to be disseminated to the public via the EBS. The completed message contained all the required elements: names of affected municipalities, evacuation routes, location of reception centers, transportation availability for those needing assistance, what to take, phone numbers to call for assistance, information on schools, and other information. The message was approved by the County Board Representative. Once approved the message was e-mailed to the radio station by the Media Message Manager. At 0938 hours, the County Board Representative read the message to the radio station (WCSJ/WJDK) over the telephone for simulated immediate live broadcast and recorded for future repeat broadcasts, ending the message at 0941 hours.

At approximately 0949 hours, the County received NARS State Message No. 4 which provided notice of a release of radioactive material and that a General Emergency ECL was still declared. This message was verified at 0952 hours and provided to the Grundy County EMA Director. The County accepted the Illinois Emergency Management Agency's recommendation to evacuate Sub-Areas 1, 2, 3, 4, 7, 9 and 12. The addition of Sub-Areas 2 and 7 affect Grundy County.

The County Media Message Manager used a pre-scripted template with specific information for the affected Sub-Areas to prepare the EBS message.

The completed message contained all the required elements: names of affected municipalities, evacuation routes, location of reception centers, transportation availability for those needing assistance, what to take, phone numbers to call for assistance, information on schools, and other information.

The message was reviewed and approved by the County Board Representative. The Media Message Manager sent the message via e-mail to the radio station. At 1008 hours, the message was then read by the County Board Representative over the telephone to the radio station for simulated immediate live broadcast and recorded by the media outlet for simulated playback every 15 minutes for the first hour. Simulated coordination (telephone call to a State Controller) was made with the other two affected counties (Will and Kendall) for the broadcast of EBS messages and sounding of sirens.

All news releases were simulated as coordinated (faxed) with the local municipalities, Kendall and Will Counties, the IEMA Representative at the JIC and the EOF. All media communication activities were logged on the Grundy County Master Log.

There was no requirement for non-English language information to be published.

RADIO STATION WCSJ

At 0820 hours, Radio Station WCSJ/WJDK received a test e-mail message from the Media Manager in the Grundy County EOC (GCEOC) requesting a confirmation of the message, and informing the radio station of the status of a drill. At 0828 hours, the Operations Manager for Radio Station WCSJ/WJDK submitted an e-mail response to the GCEOC Media Manager. At 0829 hours, the GCEOC Media Manager replied to the radio station's Operations Manager via e-mail.

At approximately 0915 hours, the small, central broadcasting and recording booth for the radio station was staffed by another radio station employee in anticipation of receiving and simultaneously broadcasting an EBS message live while recording it for future playback.

At 0937 hours, the central booth operator received an initial notification of the pending broadcast of an EAS message from the GCEOC by way of the illumination of a bright warning light in the booth and a follow-up telephone call from the GCEOC. The booth operator immediately activated the MP3 recorder while simulating overriding the live broadcast. At 0938 hours, GCEOC began reading the first EAS message and at 0941 hours, the message was completed and recorded. The booth operator also received an e-mail message containing the EAS message (Message Number 2) as an attachment with the time of the approval of the message in the GCEOC being 0935 hours.

At 1007 hours, the booth operator was again notified of a pending EAS message by the illumination of a bright warning light in the booth and a follow-up telephone call from the GCEOC. At 1007 hours, the booth operator simulated broadcasting the EAS message over the airwaves while simultaneously recording the message on the MP3 recorder. The EAS message was completed at 1011 hours. The booth operator received an e-mail message with this EAS message (Message Number 3) as an attachment, and the message was approved at the GCEOC 1005 hours.

During discussions with the broadcast/recording booth operator, it was learned that training for the radio station broadcasting staff on the e-mail notification system had been conducted by the Grundy County EMA in March 2009. The booth operator provided the evaluator with copies of both EAS messages and the radio station provided the evaluator with a copy of the Grundy County Emergency Public Notification Guideline, G-SOG-20, dated May 2007.

All activities described in the re-demonstration criterion were carried out in accordance with the plan and procedures.

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

4.2.2.3. Grundy County - Emergency Broadcast System Station - WCSJ/WJDK

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

4.2.2.4. Grundy County - EV-2 Interview - Coal City School District

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

4.2.2.5. Grundy County - EV-2 Interview - Saratoga School District

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

4.2.2.6. Kendall County - Initial Warning Point

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

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

4.2.2.7. Kendall County - Emergency Operations Center

- a. MET: 1.a.1, 1.c.1, 1.d.1, 1.e.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. NOT DEMONSTRATED: None
- e. PRIOR ISSUES - RESOLVED: None
- f. PRIOR ISSUES - UNRESOLVED: None

4.2.2.8. Kendall County - Traffic and Access Control Point

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

4.2.2.9. Kendall County - Emergency Broadcast System Station - WSPY

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

4.2.2.10. Will County - Initial Warning Point

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

4.2.2.11. Will County - Emergency Operations Center

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

4.2.2.12. Will County - Emergency Alert System Station - WJOL/WSSR/WCCQ/WRXQ

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

4.2.2.13. Will County - EV-2 Interview - Troy Community Consolidated School District 30C

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

APPENDIX 1

ACRONYMS AND ABBREVIATIONS

| | |
|-------|---|
| ARC | American Red Cross |
| ARES | Amateur Radio Emergency Service |
| BC | Board Chairman |
| CBC | County Board Chairman |
| CCC | Congregate Care Center |
| CERT | Civilian Emergency Response Team |
| DAP | Disaster Assistance Plans |
| DCO | Dosimetry Control Officer |
| DDP | Dosimetry Distribution Point |
| DGS | Dresden Generating Station |
| DNPS | Dresden Nuclear Power Station |
| DRD | Direct Reading Dosimeter |
| EAL | Emergency Action Level |
| EAS | Emergency Alert System |
| EBS | Emergency Broadcast System |
| ECL | Emergency Classification Level |
| EMA | Emergency Management Agency |
| EMC | Emergency Management Coordinator |
| EMD | Emergency Management Director |
| EMS | Emergency Medical Services |
| EOC | Emergency Operations Center |
| EOF | Emergency Operations Facility |
| EPA | Environmental Protection Agency |
| EPZ | Emergency Planning Zone |
| FEMA | Federal Emergency Management Agency |
| GCEMA | Grundy County Emergency Management Agency |
| GE | General Emergency |
| IEMA | Illinois Emergency Management Agency |
| IEPA | Illinois Environmental Protection Agency |
| ISP | Illinois State Police |
| ITECS | Illinois Transportable Emergency Communication System |
| IVCC | Illinois Valley Community College |
| IWP | Initial Warning Point |
| JIC | Joint Information Center |
| LD | Luminescent Dosimeter |
| NARS | Nuclear Accident Reporting System |
| NPS | Nuclear Power Station |
| NRC | Nuclear Regulatory Commission |
| ORO | Offsite Response Organizations |
| PA | Public Address |
| PAD | Protective Action Decision |
| PAR | Protective Action Recommendation |
| PDP | Personnel Dosimetry Packet |

| | |
|-------|--|
| PHD | Public Health Department |
| PIO | Public Information Officer |
| PNS | Prompt Notification System |
| PRD | Permanent Reading Dosimeter |
| RA | Radiological Advisor |
| RAC | Radiological Assistance Committee |
| RACES | Radio Amateur Civil Emergency Services |
| RAFT | Radiological Assistance Field Team |
| REAC | Radiological Emergency Assessment Center |
| REP | Radiological Emergency Preparedness |
| SAE | Site Area Emergency |
| SEOC | State Emergency Operations Center |
| SIRC | State Incident Response Center |
| UAC | Unified Area Command |

APPENDIX 2

EXERCISE EVALUATORS AND TEAM LEADERS

DATE: 2009-03-25, SITE: Dresden Nuclear Power Station, IL

| LOCATION | EVALUATOR | AGENCY |
|---|---|-----------------------------|
| State Initial Warning Point | Clayton Spangenberg | ICF |
| State Emergency Operations Center/State of Illinois Response Center | Frank Cordaro Robert Duggleby | ICF ICF |
| Public Inquiry Phone Bank | Clayton Spangenberg | ICF |
| Radiological Emergency Assessment Center | Thomas Essig Larry Harrington | ICF ICF |
| Unified Area Command - Chicagoland Speedway | James Greer Simon Guereca | ICF ICF |
| Radiological Assessment Field Team | Jill Leatherman | ICF |
| Monitoring and Decontamination of Emergency Worker Equipment at the RAFT | Jill Leatherman | ICF |
| Field Team 1 | Dennis Wilford | ICF |
| Field Team 2 | Earl Shollenberger | ICF |
| Emergency Operations Facility | Richard Grundstrom | ICF |
| Joint Information Center | Deborah Bell | ICF |
| Illinois State Liaison - Grundy County | Edward Diaz | DHS/FEMA |
| Illinois State Radiological Advisor - Grundy County | Robert Vork | ICF |
| Illinois State Liaison - Kendall County | Michael Petullo | ICF |
| Illinois State Radiological Advisor - Kendall County | Carl Bebrich | DHS/FEMA |
| Illinois State Liaison - Will County | Robert Rospenda | ICF |
| Illinois State Radiological Advisor - Will County | Richard McPeak | ICF |
| Dosimetry Control Officer's Briefing - Illinois State Police District 5 Headquarters | Paul Ringheiser Jr | ICF |
| Traffic and Access Control Point at the Illinois State Police District 5 Headquarters | James King | DHS/FEMA |
| Decontamination of Evacuees and Emergency Workers - Kankakee Community College | Richard McPeak | ICF |
| Monitoring and Decontamination of Emergency Worker Equipment - Kankakee Community College | Deborah Bell Wendy Swygert | ICF ICF |
| Public Registration - Kankakee Community College | Tracey Green | ICF |
| Congregate Care Center - Kankakee Community College | Tracey Green | ICF |
| Grundy County - Initial Warning Point | Paul Ringheiser Jr | ICF |
| Grundy County - Emergency Operations Center | Edward Diaz Delwyn Kinsley Robert Vork | DHS/FEMA DHS/FEMA ICF |
| Grundy County - Emergency Broadcast System Station - WCSJ/WJDK | Paul Ringheiser Jr | ICF |
| Grundy County - EV-2 Interview - Coal City School District | *Clinton Crackel | DHS/FEMA |
| Grundy County - EV-2 Interview - Saratoga School District | *Clinton Crackel | DHS/FEMA |
| Kendall County - Initial Warning Point | James King | DHS/FEMA |
| Kendall County - Emergency Operations Center | Carl Bebrich Michael Petullo | DHS/FEMA ICF |
| Kendall County - Traffic and Access Control Point | Wendy Swygert | ICF |
| Kendall County - Emergency Broadcast System Station - WSPY | James King | DHS/FEMA |
| Will County - Initial Warning Point | Tracey Green | ICF |
| Will County - Emergency Operations Center | Richard McPeak Robert Rospenda *William Sulinckas | ICF ICF DHS/FEMA |
| Will County - Emergency Alert System Station - WJOL/WSSR/WCCQ/WRXQ | Tracey Green | ICF |

| | | |
|--|----------------|----------|
| Will County - EV-2 Interview - Troy Community Consolidated School District 30C | Delwyn Kinsley | DHS/FEMA |
| * Team Leader | | |

APPENDIX 3

EXERCISE CRITERIA AND EXTENT OF PLAY AGREEMENT

This appendix lists the exercise criteria, which were scheduled for demonstration in the Dresden Nuclear Power Station REP Full Participation Plume Exposure Pathway Exercise on March 25, 2009, and the off-site extent of play agreement approved by DHS/FEMA Region V on February 23, 2009.

The exercise criteria, contained in the FEMA "Radiological Emergency Preparedness Exercise Evaluation Methodology; Notice," as published in the Federal Register Notice/Vol 67, dated April 25, 2002, represent a functional translation of the planning standards and evaluation criteria of NUREG-0654/FEMA-REP-1, Rev1, "Criteria for the Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," November 1980.

Because the exercise criteria are intended for use at all nuclear power plant sites, and because of variations among offsite plans and procedures, an extent of play agreement is prepared by the State and approved by DHS/FEMA to provide evaluators with guidance on expected actual demonstration of the criteria.

A. Exercise Criteria

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

**STATE OF ILLINOIS EXTENT OF PLAY AGREEMENT
FOR THE
DRESDEN NUCLEAR POWER STATION EXERCISE
March 25, 2009**

Criteria that can be re-demonstrated immediately for credit, at the discretion of the evaluator, include the following: 3.a.1, 3.d.1, 3.d.2, 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 Radiological Preparedness Coordinating Committee, include the following: 2.a.1, 2.b.1, 2.b.2, 5.a.1 and 5.b.1.

EVALUATION AREA 1 - EMERGENCY OPERATIONS MANAGEMENT

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

The State Emergency Operations Center (SEOC), which houses the IEMA Communications Center (Initial Warning Point), the State of Illinois Response Center (SIRC) and the Radiological Emergency Assessment Center (REAC), will be activated. The IEMA Emergency Response Telecommunicator will implement procedures for notification of IEMA staff as defined in IEMA SOPs. The SIRC will be fully activated with a variety of State agencies. REAC will be fully activated. Rosters will be provided to demonstrate 24-hour staffing of the SIRC and REAC. The evaluator will not be allowed to remove the rosters.

An actual phone call will be made to the FEMA advising them of the situation at Dresden Station. Follow up calls to FEMA will be simulated.

The Unified Area Command (UAC) will be activated with State district and regional personnel. Radiological Assessment Field Team (RAFT) and mobile lab (not evaluated) will be activated in Mazon. IEMA personnel will be pre-positioned in the local area and dispatched to the County EOCs, UAC, EOF, Technical Support Center (TSC) and the JIC. FEMA will not evaluate the TSC.

The pre-positioned State staff will begin exercise play no earlier than the Alert.

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

This criterion will not be demonstrated during this exercise.

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.

The ability to direct and control emergency response activities will be demonstrated at the SIRC, REAC, the UAC and the JIC. Coordination will be demonstrated between the SIRC, the REAC, the UAC, the JIC, the EOF and the county EOCs.

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.

IEMA will use a variety of communication systems (Nuclear Accident Reporting System (NARS), telefax, commercial telephone, cellular phone, radio) to communicate with other organizations and locations.

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

The State of Illinois will demonstrate the use of equipment, maps and displays to support emergency operations. Dosimetry Control Officer (DCO) logs will be available from an IEMA Radiological Advisors in the County EOCs.

A DCO briefing/Traffic and Access Control (TAC) interview will be conducted by the Illinois State Police on March 24, 1 p.m., at the ISP District 5 Headquarters. During this event, the availability of dosimetry will be demonstrated. No more than 10% of ISP District 5 dosimetry kits will be inspected during the interview to confirm serial numbers.

EVALUATION AREA 2 - PROTECTIVE ACTION DECISION MAKING

Criterion 2.a.1: OROs use a decision-making process, considering relevant factors and appropriate coordination, to ensure that an exposure control system, including the use of KI, is in place for emergency workers including provisions to authorize radiation exposure in excess of administrative limits or protective action guides.

The ability to make the decision to recommend the use of KI to emergency workers will be demonstrated in REAC. A message will be injected in the Grundy County EOC to drive the decision to authorize exposure in excess of administrative limits.

Criterion 2.b.1: Appropriate protective action recommendations are based on available information on plant conditions, field monitoring data and licensee and ORO dose projections, as well as knowledge of on-site and off-site environmental conditions.

REAC will evaluate the licensee information and complete independent dose projections based on that information and simulated field monitoring data. REAC will make an evaluation of the data and make a protective action recommendation to the SIRC.

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).

The coordination to determine protective action recommendations (PARs) based upon available shelters, evacuation time estimates and other relevant factors will be demonstrated between the SIRC and REAC. The State PAR will be transmitted to the EPZ counties via NARS.

The capability to determine which centers should be activated for monitoring, decontamination, registration reception and congregate care will be demonstrated at UAC, with input from the SIRC and REAC.

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

The coordination to determine protective action recommendations (PARs) based upon available shelters, evacuation time estimates and other relevant factors will be demonstrated between the SIRC and REAC. The State PAR will be transmitted to the EPZ counties via NARS.

The ability to make the decision to recommend the use of KI to institutionalized persons will be demonstrated in REAC.

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

This criterion will not be demonstrated during this exercise.

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

This criterion will not be demonstrated during this exercise.

EVALUATION AREA 3 - PROTECTIVE ACTION IMPLEMENTATION

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

This will be demonstrated during the ISP DCO briefing/TAC interview that will be conducted on March 24, 1 p.m. at the ISP District 5 Headquarters. This criterion will also be demonstrated at the field team staging area.

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

This will be demonstrated during the ISP DCO briefing/TAC interview that will be conducted on March 24, 1 p.m. at the ISP District 5 Headquarters. This criterion will also be demonstrated at the field team staging area.

Criterion 3.c.1: Protective action decisions are implemented for special population groups within areas subject to protective actions.

This criterion does not apply to the State of Illinois.

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

This criterion does not apply to the State of Illinois.

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

This will be demonstrated by the State through coordination between the UAC and the County EOCs, in accordance with the Dresden Station EPZ Traffic and Access Control procedures. The staffing of the State posts will be simulated during the exercise.

A TAC interview will be conducted in conjunction with the DCO briefing on March 24, 1 p.m. (tentative) at the ISP District 5 Headquarters.

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

This will be demonstrated through discussions at the UAC between the Illinois State Police and Illinois Department of Transportation. A message will be injected at the UAC that will drive this demonstration. State personnel will deal with the impediment by discussing the need for equipment, and its estimated time of arrival, etc. Actual contacts with resource providers will be made and logged.

Criterion 3.e.1: The ORO demonstrates the availability and appropriate use of adequate information regarding water, food supplies, milk and agricultural production within the ingestion exposure pathway emergency planning zone for implementation of protective actions.

This criterion will not be demonstrated during this exercise.

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

This criterion will not be demonstrated during this exercise.

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

This criterion will not be demonstrated during this exercise.

EVALUATION AREA 4 - FIELD MEASUREMENT AND ANALYSIS

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

This criterion will be demonstrated at RAFT with field teams performing radiation measurements with various monitoring equipment. Air samples will be taken with charcoal cartridges and the availability of silver zeolite cartridges will be indicated. Two field teams will be evaluated.

Evaluators may not interfere with field team activities or take teams out of play to demonstrate field measurements or air sampling. If necessary, these activities will be demonstrated following the order to return all teams to the staging area.

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

This criterion will be demonstrated at RAFT.

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.

This criterion will be demonstrated by the field teams and information will be coordinated with RAFT. Samples appropriate to the area and season will be collected and transported in accordance with SOPs. Two field teams will be evaluated. Each team will take an air sample with particulate filters.

Evaluators may not interfere with field team activities or take teams out of play to demonstrate field measurements or air sampling. If necessary, these activities will be demonstrated following the order to return all teams to the staging area.

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

This criterion will not be demonstrated during this exercise.

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

This criterion will not be demonstrated during this exercise.

EVALUATION AREA 5 - EMERGENCY NOTIFICATION AND PUBLIC INFORMATION

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

The State's role in demonstrating this criterion is limited to transmitting the State's protective action recommendation (PAR) to the counties and monitoring the instructional messages provided to the public by the counties. This monitoring will be accomplished by IEMA representatives in the County EOCs.

Criterion 5.a.2: [RESERVED]

Criterion 5.a.3: Activities associated with DHS approved exception areas (where applicable) are completed within 45 minutes following the initial decision by authorized offsite emergency officials to notify the public of an emergency situation. Backup alert and notification of the public is completed within 45 minutes following the detection by the ORO of a failure of the primary alert and notification system.

This criterion does not apply to the State of Illinois.

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

This will be demonstrated at the JIC in coordination with the SIRC, REAC, UAC and the County EOCs. IEMA personnel will be present at the JIC to coordinate with the Exelon staff. Media briefings will be conducted at the JIC. A livestock advisory will be issued to the media from the JIC or the SIRC when appropriate.

A rumor control phone bank for public inquiries will be operated by the State during the exercise in a room adjacent to the SIRC.

EVALUATION AREA 6 - SUPPORT OPERATION/FACILITIES

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

This criterion will be demonstrated at Kankakee Community College during an out of sequence of demonstration conducted on March 24, with set up beginning at 8:30 a.m. Two portal monitors will be set up during the demonstration. Evacuee and emergency worker monitoring and decontamination will be demonstrated. The appropriate number of evacuees will be processed to meet 20% in 12 hours requirement.

Field team staff will discuss procedures for handling personal belongings and evacuee vehicles. An evacuee vehicle will not be monitored and decontaminated.

Criterion 6.b.1: The facility/ORO has adequate procedures and resources for the accomplishment of monitoring and decontamination of emergency worker equipment including vehicles.

This criterion will be demonstrated at Kankakee Community College during an out of sequence demonstration conducted on March 24, with set up beginning at 8:30 a.m. An emergency worker vehicle will be monitored and decontaminated by field team staff.

During the exercise, at the RAFT Staging Area, field team staff will demonstrate monitoring of a field team vehicle. Decontamination of that vehicle will be simulated via an interview.

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.

This criterion will be demonstrated at Kankakee Community College during an out of sequence demonstration conducted on March 24, with set up beginning at 8:30 a.m. Local organizations responsible for operating a reception and congregate care center will be present to demonstrate this criterion.

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

This criterion will be demonstrated during a drill conducted at St. James Hospital in Pontiac on July 14 at 9 a.m. Duffy Ambulance Service will participate in the drill.

**GRUNDY COUNTY EXTENT OF PLAY AGREEMENT
FOR THE
DRESDEN NUCLEAR POWER STATION EXERCISE
March 25, 2009**

Criteria that can be re-demonstrated immediately for credit, at the discretion of the evaluator, include the following: 3.a.1, 3.d.1, 3.d.2, 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 Radiological Preparedness Coordinating Committee, include the following: 2.a.1, 2.b.1, 2.b.2, 5.a.1 and 5.b.1.

EVALUATION AREA 1 - EMERGENCY OPERATIONS MANAGEMENT

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

Grundy County will fully activate the Emergency Operations Center (EOC) in Morris, Illinois. The County will implement notification procedures as defined in IPRA-Dresden. Representatives from IEMA and Exelon will staff the County EOC but will not be pre-positioned in the EOC. A roster will be provided to demonstrate 24-hour staffing of the EOC. Evaluators will not be allowed to remove the roster from the EOC.

The Grundy County Sheriff's Department will allow an evaluator to observe and evaluate the initial NARS message and notification at the Sheriff's Communications Center. The following conditions apply:

- Telecommunicators shift change takes place at 7 a.m. There is an exchange of information between shifts, usually from 6:50 a.m. to 7:10 a.m. Evaluators are asked not to be disruptive to this process.
- If major events occur or are occurring, evaluators will be asked to leave.
- Evaluators are expected to observe and evaluate without creating additional disruptions.

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

This criterion will not be demonstrated during this exercise.

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.

Decision making will be demonstrated at the State of Illinois Response Center (SIRC) and Grundy County EOC. Coordination of decisions and emergency activities will be demonstrated between Grundy County, the SIRC, UAC and the JIC, and between the County and municipalities within the EPZ. Coordination between Grundy County, Will County and Kendall County will be demonstrated.

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.

Grundy County will use NARS, commercial telephone, radio and telefax to communicate with departments and agencies at other locations.

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

Grundy County will adequately demonstrate the ability to support operations through the use of maps, status boards and other displays as appropriate. DCO logs will be available from the IEMA

Radiological Advisor in the County EOC. The availability of dosimetry and KI will be demonstrated at the County EOC and during the school interviews.

EVALUATION AREA 2 - PROTECTIVE ACTION DECISION MAKING

Criterion 2.a.1: OROs use a decision-making process, considering relevant factors and appropriate coordination, to insure that an exposure control system, including the use of KI, is in place for emergency workers including provisions to authorize radiation exposure in excess of administrative limits or protective action guides.

This criterion does not apply to Grundy County.

Criterion 2.b.1: Appropriate protective action recommendations are based on available information on plant conditions, field monitoring data and licensee and ORO dose projections, as well as knowledge of on-site and off-site environmental conditions.

This criterion does not apply to Grundy County.

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).

The State of Illinois will make protective action recommendations to Grundy County officials in the County EOC. The Grundy County officials will make the final decision regarding what protective actions will be recommended to the public.

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

The State of Illinois will make protective action recommendations to Grundy County officials in the County EOC. The Grundy County officials will make the final decision regarding what protective actions will be recommended for special population groups.

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

This criterion does not apply to Grundy County.

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

This criterion will not be demonstrated during this exercise.

EVALUATION AREA 3 - PROTECTIVE ACTION IMPLEMENTATION

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

Grundy County will demonstrate this criterion by close coordination with the IEMA Radiological Advisor and timely dissemination and exchange of information within the County Dosimetry Control Officer network. Exercise messages will be injected which will ensure the opportunity to demonstrate this criterion in the County EOC. This criterion will also be demonstrated during the school interviews.

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

When notified by the State of Illinois to distribute and administer KI, Grundy County officials will discuss the issuance of KI to emergency workers and immobile populations, as a voluntary measure, and will notify the municipalities of the State's recommendation. This criterion will also be demonstrated at the school interviews.

Criterion 3.c.1: Protective action decisions are implemented for special population groups within areas subject to protective actions.

This will be demonstrated by Grundy County through the simulated implementation of the appropriate task assignments. The appropriate officials will coordinate transportation and receiving facilities for special populations. One of each type of special facility will be contacted during the exercise. One of each type of transportation provider (ambulance/bus) will be contacted during the exercise. The public will not be involved in the demonstration.

The Mobility Impaired List will be available for inspection in the County EOC during the exercise. The evaluator will not be allowed to remove the list from the EOC.

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

Grundy County officials will demonstrate this capability through the simulated implementation of the appropriate task assignment in the County EOC. The EPZ schools and transportation providers will be contacted during the exercise.

Two school interviews will be conducted as follows:

| | |
|---|---------------------|
| Coal City Community Unit Dist. #1 | March 19, 9:30 a.m. |
| Saratoga Community Consolidated School Dist. #60C | March 19, 1:30 p.m. |

The District Superintendent, Principal, a Teacher, the transportation coordinator (DCO), the maintenance supervisor and a bus driver will be present at the interviews.

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

This criterion does not apply to Grundy County. Grundy County is not responsible for staffing any of the designated traffic and access control posts.

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

The Grundy County EOC staff will demonstrate the capability to identify and take appropriate actions concerning impediments to evacuation. A message will be injected by the Controller that will drive this demonstration. County personnel will deal with the impediment by identifying the equipment needed, discussing its estimated time of arrival, etc. Actual contacts with resource providers will be made and logged.

Criterion 3.e.1: The ORO demonstrates the availability and appropriate use of adequate information regarding water, food supplies, milk and agricultural production within the ingestion exposure pathway emergency planning zone for implementation of protective actions.

This criterion does not apply to Grundy County.

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

This criterion does not apply to Grundy County.

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

This criterion will not be demonstrated during this exercise.

EVALUATION AREA 4 - FIELD MEASUREMENT AND ANALYSIS

This evaluation area does not apply to Grundy County.

EVALUATION AREA 5 - EMERGENCY NOTIFICATION AND PUBLIC INFORMATION

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

Grundy County will demonstrate the capability to provide both an alert signal and an initial instructional message to populated areas throughout the 10-mile plume pathway EPZ in a timely manner after their decision to activate the alert and notification system to implement protective action recommendations (PAR).

This capability will be demonstrated through the simulated activation of the Dresden Station EPZ Prompt Notification System as defined in IPRA-Dresden. The Prompt Notification System (outdoor warning sirens) will not be activated during the exercise.

The ability to provide instructions to the public will be demonstrated through the simulated activation of the local radio station (WCSJ/WJDK). The local radio station will be contacted during the first, and possibly the second, alert and notification sequence. An evaluator and controller will be positioned at the radio station during the exercise to monitor the initial message. If the initial message does not contain a protective action recommendation, the evaluator and controller will stay at the radio station for a second message.

Coordination between Grundy County, Will County and Kendall County will be demonstrated.

Criterion 5.a.2: [RESERVED]

Criterion 5.a.3: Activities associated with FEMA approved exception areas (where applicable) are completed within 45 minutes following the initial decision by authorized offsite emergency officials to notify the public of an emergency situation. Backup alert and notification of the public is completed within 45 minutes following the detection by the ORO of a failure of the primary alert and notification system.

This criterion does not apply to Grundy County.

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

Grundy County will demonstrate this criterion by using pre-scripted messages as indicated in IPRA-Dresden or ad hoc messages will be developed. Contact with the radio station will be

simulated for each alert and notification sequence following the sequence issuing the initial protective action recommendation.

The ability to provide information to the media will be demonstrated by Grundy County through a briefing held at the Grundy County media briefing location. If real media are not present for the briefing, the controller and observers will serve as mock media. Evaluators will not serve as mock media.

The ability to deal with rumors will be demonstrated by Grundy County through coordination between the County EOC and the JIC. The Grundy County EOC controller will inject exercise messages which will ensure the opportunity to demonstrate this criterion. County officials will investigate and address rumors. If appropriate, the rumors will be coordinated between State and County officials in the County EOC and the JIC.

County emergency broadcast messages and news releases, if issued, will be faxed to the JIC.

EVALUATION AREA 6 - SUPPORT OPERATION/FACILITIES

This evaluation area does not apply to Grundy County.

**KENDALL COUNTY EXTENT OF PLAY AGREEMENT
FOR THE
DRESDEN NUCLEAR POWER STATION EXERCISE
March 25, 2009**

Criteria that can be re-demonstrated immediately for credit, at the discretion of the evaluator, include the following: 3.a.1, 3.d.1, 3.d.2, 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 Radiological Preparedness Coordinating Committee, include the following: 2.a.1, 2.b.1, 2.b.2, 5.a.1 and 5.b.1.

EVALUATION AREA 1 - EMERGENCY OPERATIONS MANAGEMENT

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

Kendall County intends to fully activate the Emergency Operations Center (EOC) in Yorkville, Illinois. The County will implement notification procedures as defined in IPRA-Dresden. Representatives from IEMA and Exelon will staff the County EOC but will not be pre-positioned in the EOC. A roster will be made available for review in order to demonstrate 24-hour County staffing of the EOC. The evaluator will not be allowed to remove the roster from the EOC.

An evaluator will be positioned at KENCOM (initial warning point) at the start of the exercise.

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

This criterion will not be demonstrated during this exercise.

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.

Decision making will be demonstrated at the State of Illinois Response Center (SIRC) and Kendall County EOC. Coordination of decisions and emergency activities will be demonstrated between Kendall County, the SIRC, UAC and the JIC. Coordination between Kendall County, Grundy County and Will County will be demonstrated.

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.

Kendall County will use NARS, commercial telephone, radio and telefax to communicate with departments, organizations and agencies at other locations.

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

Kendall County will adequately demonstrate the ability to support operations through the use of maps, status boards and other displays as appropriate. DCO logs will be available from the IEMA Radiological Advisor in the County EOC. The availability of dosimetry and KI will be demonstrated at the County EOC and during the traffic and access control demonstration.

EVALUATION AREA 2 - PROTECTIVE ACTION DECISION MAKING

Criterion 2.a.1: OROs use a decision-making process, considering relevant factors and appropriate coordination, to ensure that an exposure control system, including the use of KI, is in place for emergency workers including provisions to authorize radiation exposure in excess of administrative limits or protective action guides.

This criterion does not apply to Kendall County.

Criterion 2.b.1: Appropriate protective action recommendations are based on available information on plant conditions, field monitoring data and licensee and ORO dose projections, as well as knowledge of on-site and off-site environmental conditions.

This criterion does not apply to Kendall County.

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).

The State of Illinois will make protective action recommendations to Kendall County officials in the County EOC. The Kendall County officials will make the final decision regarding what protective actions will be recommended to the public.

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

The State of Illinois will make protective action recommendations to Kendall County officials in the County EOC. The Kendall County officials will make the final decision regarding what protective actions will be recommended for special population groups.

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

This criterion does not apply to Kendall County.

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

This criterion will not be demonstrated during this exercise.

EVALUATION AREA 3 - PROTECTIVE ACTION IMPLEMENTATION

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

Kendall County will demonstrate this criterion by close coordination with the IEMA Radiological Advisor and timely dissemination and exchange of information within the County Dosimetry Control Officer network. Exercise messages will be injected which will ensure the opportunity to demonstrate this criterion in the County EOC.

This criterion will also be demonstrated during the traffic and access control demonstration. The DCO briefing for the Sheriff's deputy demonstrating traffic and access control will be conducted at the Kendall County EOC.

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

When notified by the State of Illinois to distribute and administer KI, Kendall County officials will discuss the issuance of KI to emergency workers and immobile populations, as a voluntary measure. This criterion will also be demonstrated during the traffic and access control demonstration.

Criterion 3.c.1: Protective action decisions are implemented for special population groups within areas subject to protective actions.

This will be demonstrated by Kendall County through the simulated implementation of the appropriate procedures. The appropriate officials will coordinate transportation and receiving facilities for special populations. One of each type of special facility will be contacted during the exercise. One of each type of transportation provider (ambulance/bus) will be contacted during the exercise. The public will not be involved in the demonstration.

The Mobility Impaired List will be available for inspection in the County EOC during the exercise. The evaluator will not be allowed to remove the list from the EOC.

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

This criterion will be demonstrated in the Kendall County EOC.

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

Coordination between Kendall County agencies designated to provide traffic and access control will be exhibited in the County EOC. A Sheriff's deputy will be available during the exercise to demonstrate the staffing of one post. The post for the demonstration will be selected by Kendall County during the exercise based on exercise play. The deputy will drive to the selected post location for the demonstration. The staffing of the remaining posts will be simulated.

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

The Kendall County EOC staff will demonstrate the capability to identify and take appropriate actions concerning impediments to evacuation. A message will be injected by the controller that will drive this demonstration. County personnel will deal with the impediment by identifying the equipment needed, discussing its estimated time of arrival, etc. Actual contacts with resource providers will be made and logged.

Criterion 3.e.1: The ORO demonstrates the availability and appropriate use of adequate information regarding water, food supplies, milk and agricultural production within the ingestion exposure pathway emergency planning zone for implementation of protective actions.

This criterion does not apply to Kendall County.

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

milk and agricultural production.

This criterion does not apply to Kendall County.

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

This criterion will not be demonstrated during this exercise.

EVALUATION AREA 4 - FIELD MEASUREMENT AND ANALYSIS

This evaluation area does not apply to Kendall County.

EVALUATION AREA 5 - EMERGENCY NOTIFICATION AND PUBLIC INFORMATION

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

Kendall County will demonstrate the capability to provide both an alert signal and an initial instructional message to populated areas throughout the 10-mile plume pathway EPZ in a timely manner after their decision to activate the alert and notification system to implement protective action recommendations (PAR).

This capability will be demonstrated through the simulated activation of the Dresden Station EPZ Prompt Notification System as defined in IPRA-Dresden. The Prompt Notification System (outdoor warning sirens) will not be activated during the exercise.

The ability to provide instructions to the public will be demonstrated through the simulated activation of the local radio station. The local radio station (WSPY) will be contacted during the first, and possibly the second, alert and notification sequence. An evaluator and controller will be positioned at the radio station during the exercise to monitor the initial message. If the initial message does not contain a PAR, the evaluator and controller will stay at the radio station for the second message.

Coordination between Kendall County, Grundy County and Will County will be demonstrated.

Criterion 5.a.2: [RESERVED]

Criterion 5.a.3: Activities associated with FEMA approved exception areas (where applicable) are completed within 45 minutes following the initial decision by authorized offsite emergency officials to notify the public of an emergency situation. Backup alert and notification of the public is completed within 45 minutes following the detection by the ORO of a failure of the primary alert and notification system.

This criterion does not apply to Kendall County.

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

Kendall County will demonstrate this criterion by using pre-scripted messages as indicated in IPRA-Dresden. Contact with the radio station will be simulated for each alert

and notification sequence following the sequence issuing the initial protective action recommendation.

The ability to provide information to the media will be demonstrated by Kendall County through a briefing held at the Kendall County media briefing location. If real media are not present for the briefing, the controller and observers will serve as mock media. Evaluators will not serve as mock media.

The ability to deal with rumors will be demonstrated by Kendall County through coordination between the County EOC and the JIC. The controller will inject exercise messages which will ensure the opportunity to demonstrate this criterion. County officials will investigate and address "rumors." If appropriate, the "rumors" will be coordinated between State and County officials in the County EOC and the JIC.

County emergency broadcast messages and news releases, if issued, will be faxed to the JIC.

EVALUATION AREA 6 - SUPPORT OPERATION/FACILITIES

This evaluation area does not apply to Kendall County.

**WILL COUNTY EXTENT OF PLAY AGREEMENT
FOR THE
DRESDEN NUCLEAR POWER STATION EXERCISE
March 25, 2009**

Criteria that can be re-demonstrated immediately for credit, at the discretion of the evaluator, include the following: 3.a.1, 3.d.1, 3.d.2, 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 Radiological Preparedness Coordinating Committee, include the following: 2.a.1, 2.b.1, 2.b.2, 5.a.1 and 5.b.1.

EVALUATION AREA 1 - EMERGENCY OPERATIONS MANAGEMENT

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

Will County intends to partially activate the Emergency Operations Center (EOC) in Joliet, Illinois. The County will implement notification procedures as defined in IPRA-Dresden. The following Will County officials will staff the County EOC: County Executive, Emergency Management Director, Sheriff and PIO. Representatives from IEMA and Exelon will staff the County EOC but will not be pre-positioned in the EOC. A roster will be provided to demonstrate 24-hour staffing of the EOC. Evaluators will not be allowed to remove the roster from the EOC.

An evaluator will be positioned at the County Sheriff's Communications Center (initial warning point) at the start of the exercise.

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

This criterion will not be demonstrated during this exercise.

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.

Decision making will be demonstrated at the State of Illinois Response Center (SIRC) and Will County EOC. Coordination of decisions and emergency activities will be demonstrated between Will County, the SIRC, UAC and the JIC, and between the County and municipalities within the EPZ. Coordination between Will County, Grundy County and Kendall County will be demonstrated.

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.

Will County will use NARS, commercial telephone, radio and telefax to communicate with departments and agencies at other locations.

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

Will County will demonstrate the ability to support operations through the use of maps, status boards and other displays as appropriate. DCO logs will be available from the IEMA Radiological Advisor in the Will County EOC. The availability of dosimetry and KI will be demonstrated at the school interview.

EVALUATION AREA 2 - PROTECTIVE ACTION DECISION MAKING

Criterion 2.a.1: OROs use a decision-making process, considering relevant factors and appropriate coordination, to ensure that an exposure control system, including the use of KI, is in place for emergency workers including provisions to authorize radiation exposure in excess of administrative limits or protective action guides.

This criterion does not apply to Will County.

Criterion 2.b.1: Appropriate protective action recommendations are based on available information on plant conditions, field monitoring data and licensee and ORO dose projections, as well as knowledge of on-site and off-site environmental conditions.

This criterion does not apply to Will County.

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).

The State of Illinois will make protective action recommendations to Will County officials in the County EOC. The Will County officials will make the final decision regarding what protective actions will be recommended to the public.

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

The State of Illinois will make protective action recommendations to Will County officials in the County EOC. The Will County officials will make the final decision regarding what protective actions will be recommended for special population groups.

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

This criterion does not apply to Will County.

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

This criterion will not be demonstrated during this exercise.

EVALUATION AREA 3 - PROTECTIVE ACTION IMPLEMENTATION

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

This criterion will be demonstrated during the school interview.

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

This criterion will be demonstrated during the school interview.

Criterion 3.c.1: Protective action decisions are implemented for special population groups within areas subject to protective actions.

This criterion will not be demonstrated during this exercise.

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

A school interview will be conducted with the Troy Community Consolidated School District #30C on Thursday, March 19 at 2:00 p.m.. A District Administrator, a Teacher, the transportation coordinator (DCO), the maintenance supervisor and a bus driver will be present at the interview.

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

This criterion will not be demonstrated during this exercise.

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

This criterion will not be demonstrated during this exercise.

Criterion 3.e.1: The ORO demonstrates the availability and appropriate use of adequate information regarding water, food supplies, milk and agricultural production within the ingestion exposure pathway emergency planning zone for implementation of protective actions.

This criterion does not apply to Will County.

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

This criterion does not apply to Will County.

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

This criterion will not be demonstrated during this exercise.

EVALUATION AREA 4 - FIELD MEASUREMENT AND ANALYSIS

This evaluation area does not apply to Will County.

EVALUATION AREA 5 - EMERGENCY NOTIFICATION AND PUBLIC INFORMATION

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

Will County will demonstrate the capability to provide both an alert signal and an initial instructional message to populated areas throughout the 10-mile plume pathway EPZ in a timely manner after their decision to activate the alert and notification system to implement protective action recommendations (PAR).

This capability will be demonstrated through the simulated activation of the Dresden Station EPZ Prompt Notification System as defined in IPRA-Dresden. The Prompt Notification System (outdoor warning sirens) will not be activated during the exercise.

The ability to provide instructions to the public will be demonstrated through the simulated activation of the local radio station (WJOL/WSSR/WCCQ/WRXQ). The local radio station will be contacted during the first, and possibly the second, alert and notification sequence. An evaluator and controller will be positioned at the radio station during the exercise to monitor the initial message. If the initial message does not contain a protective action recommendation, the evaluator and controller will stay at the radio station for a second message.

Coordination between Will County, Grundy County and Kendall County will be demonstrated.

Criterion 5.a.2: [RESERVED]

Criterion 5.a.3: Activities associated with FEMA approved exception areas (where applicable) are completed within 45 minutes following the initial decision by authorized offsite emergency officials to notify the public of an emergency situation. Backup alert and notification of the public is completed within 45 minutes following the detection by the ORO of a failure of the primary alert and notification system.

This criterion does not apply to Will County.

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

Will County will demonstrate a portion of this criterion by using pre-scripted messages as indicated in IPRA-Dresden. Contact with the radio station will be simulated for each alert and notification sequence following the sequence issuing the initial protective action recommendation. County emergency broadcast messages will be faxed to the JIC.

Media briefings and the ability to deal with public inquiries will not be demonstrated during this exercise.

EVALUATION AREA 6 - SUPPORT OPERATION/FACILITIES

This evaluation area does not apply to Will County.

NARRATIVE SUMMARY

NORMAL OPERATIONS

0800

The Operating Crew will be briefed and is expected to take the shift by 0800. They will be directed by turnover to continue operations at full power.

ALERT

0805 - 0935

Flooding affecting the plant Vital Area - ALERT, HA5

At 0805, the operating crew will receive a call from the engineer at the U2 CCSW vault room with a report of flooding in the U2 CCSW vault. 2 "8" CCSW Pump trips on overcurrent. There will be a visual report of damage to 2 "8" and "C" CCSW Pumps visible inside vault. The operating crew will also receive a message that, due to the 2 "8" CCSW Pump trip, water flow from the has been reduced to weeping from the hairline break on the discharge of the pump. There is no water exiting from the vault and there is no input to the Condensate Pump room floor or sumps.

Expected Response

The Shift Manager should identify that **ALERT, HA5 "Flooding affecting the plant Vital Area"** is applicable. All appropriate notifications should be performed, and the Dialogic System should be activated. The Operating Crew may contemplate calling in extra personnel to assist with monitoring the control boards. Command and Control should be transferred as soon as practicable.

SITE AREA EMERGENCY

0935 --1105

LARGE BREAK LOCA INSIDE DRYWELL w/FUEL FAILURE

A large break occurs resulting in a RPV level reduction and RCS input into the Drywell. A SCRAM occurs and all ECCS systems and isolations respond as designed with the exception of the HPCI steam supply isolation that fails open (this is not a loss of containment as there is no pathway to the environment). RPV level will drop to less than - 143" and recover. After the LOCA, DW radiation will rise, eventually exceeding 670 R/hr, a Loss of the Fuel barrier (FC5), which will result in a concurrent FS1.

Expected Response

Multiple annunciators will alert the crew that a SCRAM has occurred on Unit 2 and a break

into the drywell is occurring. Procedural steps will be taken to restore RPV level and stabilize Drywell pressure. Manual attempts to close the HPCI steam supply isolation valves will not succeed. ADS function will be restricted as well as one loop of DW sprays.

The Shift Manager should identify that **FS1 "Loss or Potential Loss of two fission product barriers"** is applicable. Assuming Command and Control has been transferred from the Shift ED, the Shift Manager should provide backup and peer checking to the ED in command. PA announcements will be made and Assembly / Accountability will be initiated.

Expected Actions

The situation should be transmitted to the TSC via one of the communicator in the Simulator Control Room. The Maintenance Director and/or the Operations Manager should take actions to dispatch an NLO / OSC team to investigate the pump trips and equipment failures.

Additional Information

A Service Water pump will trip, prompting operating crew response. Isolation Condenser will isolate on a spurious trip. A 250vDC failure will result in lost indication to selected ECCS systems. An engineering report will be made available that will state that the currently installed charcoal adsorbers are not effective for both trains of the SGBT system. This information should make its way to the facility RPM, who will inform appropriate personnel that the DAPAR Process Reduction Factor (PRF) is 0.4 due to failed filters.

GENERAL EMERGENCY **1105-1205**

UNISOLABLE RCS LEAK OUTSIDE OF DRYWELL RELEASE IN PROGRESS

HPCI room temperatures will alarm, followed quickly by radiation alarms in the same room. The crew should identify that a break has occurred outside the drywell. Control Room indications for the HPCI Steam Supply Outboard Isolation valve (2-2301-5) will be lost due to 250vDC failure, as it is postulated that the valve has failed, causing a leak into the HPCI room. A release path exists from the RPV to the HPCI room through the HPCI steam supply to the ventilation systems to SGBT and out the U2/3 Main Chimney. Effluent readings will indicate a significant jump in release rates. DW radiation will continue to rise, peaking at >1000 R at 1120.

Expected Actions

The Operating Crew will continue to address RPV parameters and control the reactor. The Emergency Director in Command and Control should declare **FG-1 "Loss of two fission product barriers with the potential loss of the third."** Appropriate notifications should be made. The EOF (assuming Command and Control for PARs has been transferred) should identify that Minimum PARs are applicable, and notifications of such should be made. Note: The loss of RCS (RC2) may be included for the GE classification. The basis for RC2 states that dropping level below TAF is indicative of a LOCA. This was used as loss of

the RCS barrier at the SAE. Also, RA3 may be considered for a concurrent EAL as HPCI area rads meet the classification for this.

GENERAL EMERGENCY

1205-1235

WIND SHIFT Release In Progress

The Wind will shift, changing from 190° (into 010°) to wind from 123° (into 303°).

Expected Actions

The EOF should identify a change in PARs are applicable, and notifications of such should be made.

EXERCISE TERMINATION

Exercise termination is scheduled for 1235, but at the discretion of the Lead Scenario Evaluator, Lead Scenario Controller, and State of Illinois with the concurrence of the Evaluator and Controller network, this time may be extended or advanced.

OFFSITE EXERCISE TIMELINE
March 25, 2009

| <u>Approx. Time</u> | <u>Event/Anticipated Response</u> |
|---------------------|--|
| 0800 | Initial conditions/weather forecast message to players. |
| 0810 | An Alert is declared at Dresden Station. |
| 0825 | <p>Exelon notifies the IEMA Telecommunicator of the ALERT via NARS.</p> <p>IEMA Telecommunicator verifies the NARS message.</p> <p>An IEMA Duty Officer contacts the Dresden Station Shift Engineer.</p> <p>IEMA Telecommunicator notifies IEMA personnel of the ALERT per SOP.</p> <p>IEMA may activate the State of Illinois Response Center (SIRC) and Radiological Emergency Assessment Center (REAC), if appropriate.</p> <p>IEMA may dispatch liaisons to the County EOCs, Unified Area Command (UAC), Radiological Assessment Field Team (RAFT) Staging Area, Joint Information Center (JIC), Technical Support Center (TSC) and Emergency Operations Facility (EOF), if appropriate.</p> <p>IEMA notifies Governor's Office of the ALERT. (Simulated)</p> <p>IEMA Telecommunicator notifies appropriate State agencies of the ALERT.</p> <p>IEMA notifies FEMA of the ALERT.</p> |
| 0840 | <p>IEMA Telecommunicator notifies the counties of the ALERT via NARS.</p> <p>County telecommunicators complete and verify the NARS message.</p> <p>County telecommunicators notify County officials and municipalities of the ALERT per SOP.</p> <p>The counties may activate the EOCs, if appropriate.</p> <p>Municipal telecommunicators complete and verify the NARS message.</p> <p>Municipal telecommunicators notify officials of the ALERT per SOP.</p> |

| <u>Approx. Time</u> | <u>Event/Anticipated Response</u> |
|---------------------|---|
| 0940 | A SITE AREA EMERGENCY is declared at Dresden Station. |
| 0955 | <p>Exelon notifies the IEMA Telecommunicator of the SITE AREA EMERGENCY via NARS.</p> <p>IEMA Telecommunicator verifies the NARS message.</p> <p>REAC contacts the Dresden Station Shift Engineer.</p> <p>SIRC is activated if not previously activated.</p> <p>SIRC notifies the Governor's Office and requests that a representative report to the State EOC. (Simulated)</p> <p>State dispatches liaisons to the County EOCs, UAC, RAFT, JIC, TSC and EOF, if not previously dispatched.</p> <p>SIRC notifies FEMA of conditions. (Simulated)</p> <p>IEMA notifies State agencies (Simulated):</p> <ul style="list-style-type: none"> - Illinois State Police - IDOT/Division of Highways - IDOT/Division of Aeronautics - IDNR - Illinois National Guard - ICC - American Red Cross - IDPH - IEPA - IDOC - IDHS - IDOA - Office of the State Fire Marshal - others as appropriate <p>REAC contacts Federal agencies. (Simulated)</p> <p>REAC provides an update to the SIRC and County EOC Liaisons.</p> <p>REAC provides an update to the JIC.</p> |
| 1010 | IEMA notifies the counties of the SITE AREA EMERGENCY via NARS. |

| <u>Approx. Time</u> | <u>Event/Anticipated Response</u> |
|---------------------|--|
| | <p>County telecommunicators complete and verify the NARS message.</p> <p>County telecommunicators notify County officials and municipalities of the SITE AREA EMERGENCY per SOP.</p> <p>County EOCs are activated if not previously activated.</p> <p>Counties implement public notification procedures, if appropriate. (Simulated)</p> <p>Municipal telecommunicators complete and verify the NARS message.</p> <p>Municipal telecommunicators notify officials per SOP.</p> <p>Dosimetry is issued to emergency personnel, EOC staff and exposure records are completed.</p> |
| 1105 | A GENERAL EMERGENCY is declared at Dresden Station. |
| 1120 | <p>Exelon notifies the IEMA Telecommunicator of the GENERAL EMERGENCY via NARS. Protective actions are recommended.</p> <p>IEMA Telecommunicator verifies the NARS message.</p> <p>The SIRC and REAC evaluate the protective action recommendation.</p> <p>A recommendation is made to the Governor. The Governor recommends that protective actions be implemented.</p> <p>SIRC staff is advised of the situation.</p> <p>SIRC advises UAC, the County EOC liaisons and JIC staff of the situation.</p> <p>SIRC notifies FEMA of conditions. (Simulated)</p> <p>REAC provides an update to the SIRC and County EOC liaisons.</p> <p>REAC provides an update to the JIC.</p> |
| 1135 | SIRC notifies the counties of the GENERAL EMERGENCY and the recommended protective actions via NARS. |

County telecommunicators complete and verify the NARS message.

County telecommunicators notify County officials and municipalities per SOP.

Approx.
Time

Event/Anticipated Response

Counties implement public notification procedures and traffic and access control per SOPs, as applicable.

Municipal telecommunicators complete and verify and the NARS message.

Municipal telecommunicators notify EOC staff.

1205 The GENERAL EMERGENCY continues at Braidwood Station. A wind shift has occurred.

1220 Exelon notified the IEMA Telecommunicator of the wind shift via NARS. Additional protective action are recommended.

IEMA Telecommunicator verified the NARS message.

The SIRC and REAC evaluate the protective action recommendation.

A recommendation is made to the Governor. The Governor recommended that protective actions be implemented.

SIRC staff is advised of the situation.

SIRC advises UAC, the County EOC liaisons and JIC staff of the situation.

SIRC notifies FEMA of conditions. (Simulated)

REAC provides an update to the JIC.

1235 SIRC notifies EPZ counties of the wind shift and the recommended protective actions via NARS.

County telecommunicators complete and verify the NARS message.

County telecommunicators advise county officials and municipalities per SOP.

Counties implement public notification procedures and traffic and access control per SOPs, as applicable.

Municipal telecommunicators complete and verify the NARS message.

1300 Terminate exercise play.