



FEMA

MAY 10 2007

Mr. Jim Caldwell
Regional Administrator
U. S. Nuclear Regulatory Commission
Region III
2443 Warrenville Road
Lisle, Illinois 60542-4351

Dear Mr. Caldwell:

Enclosed is one copy of the Final Report for the March 21, 2007, Radiological Emergency Preparedness (REP) Plume Exposure Pathway Exercise for the Dresden Nuclear Power Station. The State of Illinois, Grundy, Kendall and Will Counties, and the utility owner/operator, Exelon Nuclear, participated in this exercise. The final exercise report was prepared by the U.S. Department of Homeland Security/Federal Emergency Management Agency Region V REP Program staff.

No Deficiencies were identified during this exercise for the State of Illinois, or for the Counties of Grundy, Kendall or Will.

There were no Areas Requiring Corrective Action (ARCAs) identified during this exercise for the State of Illinois. There was one prior ARCA identified for the State Emergency Operations Center/State of Illinois Response Center under Criterion 1.c.1. - Direction and Control, which was resolved during this exercise. There was one prior ARCA identified for the State of Illinois at the Joint Information Center under Criterion 5.b.1. - Emergency Information and Instructions for the Public and Media that was resolved during this exercise.

There was one ARCA identified during this exercise for Kendall County. The ARCA occurred under Criterion 5.b.1 – Emergency Information and Instructions for the Public and Media, whereby the media was provided with misleading information during the first media briefing. The ARCA was successfully re-demonstrated during the exercise.

There were no ARCAs identified during this exercise for Grundy and Will Counties.

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

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

Based on the results of the March 21, 2007, exercise, the offsite radiological emergency response plans and preparedness for the State of Illinois and affected local jurisdictions, site-specific to the Dresden Nuclear Power Station, can be implemented and are adequate to provide reasonable

assurance that appropriate measures can be taken offsite to protect the health and safety of the public in the event of a radiological emergency at the site.

Therefore, the Title 44 CFR, Part 350, approval of the offsite radiological emergency response plans and preparedness for the State of Illinois site-specific to the Dresden Nuclear Power Station, granted on October 14, 1982, remains in effect.

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

Sincerely,



Vanessa E. Quinn, Acting Director
Technological Hazards Division
National Preparedness Directorate

Enclosure

cc: Mr. Anthony McMurtray, Chief
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- Dresden Nuclear Power Station
- Exercise – March 21, 2007

- Final Report – Radiological Emergency Preparedness Program

- *May 10, 2007*



FEMA

FEMA Region V





FEMA

Final Exercise Report

Dresden Nuclear Power Station

Licensee: Exelon Corporation

Exercise Date: March 21, 2007

Report Date: May 10, 2007

U.S Department of Homeland Security
Federal Emergency Management Agency
Region V

536 South Clark Street
Chicago, Illinois 60605 - 1521

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1. Executive Summary

On March 21, 2007, a Radiological Emergency Preparedness (REP) Partial Participation Plume Exposure Pathway Exercise was conducted for the 10-mile Emergency Planning Zone (EPZ) around the Dresden Nuclear Power Station by the U.S. Department of Homeland Security (DHS), Chicago Field Office. 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' 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 9, 2005. The qualifying emergency preparedness exercise was conducted on September 30, 1981.

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.

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

This Final Report contains the evaluation of the biennial exercise, and the evaluation of the following out of sequence interview activities: Illinois State Police (ISP) Dosimetry Control Officers Briefing, ISP Traffic and Access Control Point at the ISP District 5 Headquarters, Protective Actions for Schools (EV-2), Monitoring and Decontamination of Evacuees and Emergency Workers, Decontamination of Emergency Worker's Equipment, Public Registration and Congregate Care Center. The State and local organizations except where noted in this report demonstrated knowledge of their emergency response plans and procedures and adequately implemented them

No Deficiencies were identified during this exercise for the State of Illinois, or for the Counties of Grundy, Kendall or Will.

There were no Areas Requiring Corrective Action (ARCAs) identified during this

exercise for the State of Illinois. There was one prior ARCA identified for the State Emergency Operations Center/State of Illinois Response Center under Criterion 1.c.1. - Direction and Control that was resolved during this exercise. There was one prior ARCA identified for the State of Illinois at the Joint Information Center under Criterion 5.b.1. - Emergency Information and Instructions for the Public and Media that was resolved during this exercise.

There was one ARCA identified during this exercise for Kendall County under Criterion 5.b.1 – Emergency Information and Instructions for the Public and Media, whereby the media was provided with misleading information during the first media briefing. The ARCA was successfully re-demonstrated during the exercise.

There were no new ARCAs identified during this exercise for Grundy and Will Counties.

There were no ARCAs from previous exercises for 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. DHS/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.

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

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

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

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

A REP Partial Participation Plume Exposure Pathway Exercise was conducted on March 21, 2007, by DHS 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 were made by the DHS/FEMA RAC Chairman, and approved by DHS/FEMA Headquarters.

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 21, 2007, REP Partial 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

- Illinois Department of Transportation
- Illinois Emergency Management Agency (IEMA)
- Illinois Environmental Protection Agency
- Illinois State Police

Risk Jurisdictions

- Grundy County Administrator
- Grundy County Board Chairman
- Grundy County City of Minooka
- Grundy County Emergency Management Agency
- Grundy County Health Department
- Grundy County Highway Department
- Grundy County Morris School District 54
- Grundy County Morris School District 101
- Grundy County Public Information
- Grundy County Saratoga School District
- Grundy County Sheriff's Department
- Grundy County Superintendent of Schools
- Kendall County Board Chairman
- Kendall County Emergency Management Agency
- Kendall County Health Department
- Kendall County Public Information
- Kendall County Sheriff's Department
- Will County Board Chairperson
- Will County City of Elwood
- Will County City of Joliet
- Will County City of Shorewood
- Will County Elwood School District

Will County Emergency Management Agency

Will County Sheriff's Department

Private Jurisdictions

Amateur Radio Emergency Services

American Red Cross

Carl Sanberg High School

EBS Radio Station WCSJ

EAS Radio Station WJOL/WSSR/WCCQ/WRXQ

EBS Radio Station WSPY

Exelon Nuclear

Morris Hospital Emergency Medical Services

3.3. Exercise Timeline

Table 1, on the following page, presents the times at which key events and activities occurred during the REP Partial Participation Plume Exposure Pathway exercise conducted on March 21, 2007, for the Dresden Nuclear Power Station.

Table 1 - Exercise Timeline
 DATE: 2007-03-21, SITE: Dresden Nuclear Power Station, IL

Emergency Classification Level or Event	Time Utility Declared	EOC/SIRC	REAC	UAC	JIC	Grundy County - EOC	Kendall County - EOC
Unusual Event	NA	NA	NA	NA	NA	NA	NA
Alert	0808	0820	NA	0825	0824	0837	0831
Site Area Emergency	0949	1000	1000	1004	0957	1011	1014
General Emergency	1117	1130	1130	1136	1124	1139	1139
Simulated Rad. Release Started	1110	1130	1117	1125	1114	1139	1139
Simulated Rad. Release Terminated	NA	NA	NA	NA	NA	NA	NA
Facility Declared Operational		0855	0900	0850	0911	0920	0959
Declaration of State of Emergency		1208	1208	1208	1255 (State)	0925 (Local)	NA
Exercise Terminated		1257	1315	1300	1325	1345	1335
Early Precautionary Actions: a) Instructional Message: Stay tuned to EBS/EAS Radio Station Broadcast for Further Information; b) Livestock Advisory: Place Livestock on Stored Feed and Protective Water; and c) Close Forest Preserve		b) 1020	b) 1020	NA	b) 1020	a) 0936	a) 1041 c) 1103
1st Protective Action Decision: a) State PAR: Evacuate Sub-area 1, 2, 3, 4, 7, 9 & 12 in Grundy & Will Counties; b) PAD by Grundy & Will Counties; and c) Kendall Co. only: Shelter in Place Sub area 6.		a) 1138	a) 1130	a) 1136 c) 1201	a) 1140 c) 1200	b) 1149	c) 1153
1st Siren Activation		NA	NA	NA	NA	1156	1200
1st EAS or EBS Message		NA	NA	NA	NA	1205	1206
2nd Protective Action Decision: a) State PAR: Evacuate Sub-areas 1, 2, 3, 4, 6, 7, 9 and 12; b) Kendall Co. PAD.		a) 1238	a) 1225	a) 1230	a) 1249	N/A	b) 1244
2nd Siren Activation		NA	NA	NA	NA	NA	1250
2nd EAS or EBS Message		NA	NA	NA	NA	NA	1252
KI Administration Decision: State Decision Not to Administer KI		1130	1130	NA	NA	NA	NA

Table 1 - Exercise Timeline
 DATE: 2007-03-21, SITE: Dresden Nuclear
 Power Station, IL

Emergency Classification Level or Event	Time Utility Declared	Will County - EOC
Unusual Event	NA	NA
Alert	0808	0831
Site Area Emergency	0949	1011
General Emergency	1117	1141
Simulated Rad. Release Started	1110	1141
Simulated Rad. Release Terminated	NA	NA
Facility Declared Operational		0914
Declaration of State of Emergency		1100 (Local)
Exercise Terminated		1343
Early Precautionary Actions: a) Instructional Message: Stay tuned to EBS/EAS Radio Station Broadcast for Further Information; b) Livestock Advisory: Place Livestock on Stored Feed and Protective Water; and c) Close Forest Preserve		a) 1020 b) 1032
1st Protective Action Decision: a) State PAR: Evacuate Sub-area 1, 2, 3, 4, 7, 9 & 12 in Grundy & Will Counties; b) PAD by Grundy & Will Counties; and c) Kendall Co. only: Shelter in Place Sub area 6.		b) 1145
1st Siren Activation		1147
1st EAS or EBS Message		1148
2nd Protective Action Decision: a) State PAR: Evacuate Sub-areas 1, 2, 3, 4, 6, 7, 9 and 12; b) Kendall Co. PAD.		N/A
2nd Siren Activation		NA
2nd EAS or EBS Message		NA
KI Administration Decision: State Decision Not to Administer KI		1140

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 21, 2007, REP Partial Participation Plume Exposure Pathway Exercise to test the off-site emergency response capabilities of State and local governments in the 10-mile EPZ plume planning zone 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: 2007-03-21 SITE: Dresden Nuclear Power Station, IL A: ARCA, D: Deficiency, M: Met		IWP - Illinois	EOC/SIRC	REAC	UAC	EOF	JIC	IL State Liaison - Grundy County	IL State Rad Advisor - Grundy County	IL State Liaison - Kendall County	IL State Rad Advisor - Kendall County	IL State Liaison - Will County
Emergency Operations Management												
Mobilization	1a1	M	M	M	M	M	M		M		M	
Facilities	1b1											
Direction and Control	1c1		M	M	M	M	M	M	M	M	M	M
Communications Equipment	1d1	M	M	M	M	M	M					
Equip & Supplies to support operations	1e1		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	
Implementation of KI decision	3b1											
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											
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	
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		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											
Transportation and treatment of contaminated injured individuals	6d1											

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

DATE: 2007-03-21 SITE: Dresden Nuclear Power Station, IL A: ARCA, D: Deficiency, M: Met		IL State Rad Advisor - Will County	DCO Briefing - ISP District 5	TACP - ISP District 5	CSHS - Mon E&EW	CSHS - Decon F&EW	CSHS - M&D EW Equip	CSHS - Registration	CSHS - CCC	Grundy County - IWP	Grundy County - EOC	Grundy County - EBS
Emergency Operations Management												
Mobilization	1a1	M								M	M	
Facilities	1b1											
Direction and Control	1c1	M									M	
Communications Equipment	1d1			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	
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	M	M	M			M	
Implementation of KI decision	3b1		M	M							M	
Implementation of protective actions for special populations - EOCs	3c1										M	
Implementation of protective actions for Schools	3c2										M	
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											
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
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				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: 2007-03-21 SITE: Dresden Nuclear Power Station, IL A: ARCA, D: Deficiency, M: Met		Grundy Co. EV-2 Morris 54 SD	Grundy Co. EV-2 Morris 101	Grundy Co. EV-2 Saratoga SD	Kendall County - IWP	Kendall County - EOC	Kendall County - EACP	Kendall County - FBS	Will County - IWP	Will County - EOC	Will County - EAS	Will Co. EV-2 Elwood SD
Emergency Operations Management												
Mobilization	1a1				M	M			M	M		
Facilities	1b1											
Direction and Control	1c1					M				M		
Communications Equipment	1d1	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		
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		M	M			M		M
Implementation of KI decision	3b1	M	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		M
Implementation of traffic and access control	3d1					M	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											
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	
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	
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											
Transportation and treatment of contaminated injured individuals	6d1											

4.2. Status of Jurisdictions Evaluated

This subsection provides information on the evaluation of each participating jurisdiction and functional entity in a jurisdiction-based, issues-only format. Presented below are definitions of the terms used in this subsection relative to criteria demonstration status.

- **Met** – Listing of the demonstrated exercise criteria under which no Deficiencies or ARCAs were assessed during this exercise and under which no ARCAs assessed during prior exercises remain unresolved.
- **Deficiency** – Listing of the demonstrated exercise criteria under which one or more Deficiencies were assessed during this exercise. Included is a description of each Deficiency and recommended corrective actions.
- **Area Requiring Corrective Action** – Listing of the demonstrated exercise criteria under which one or more ARCAs was assessed during the current exercise or ARCAs assessed during prior exercises remain unresolved. Included is a description of the ARCAs assessed during this exercise and the recommended corrective action to be demonstrated before or during the next biennial exercise.
- **Not Demonstrated** – Listing of the exercise criteria that were not demonstrated as scheduled during this exercise and the reason(s) they were not demonstrated.
- **Prior ARCAs – Resolved** – Descriptions of ARCAs assessed during previous exercises that were resolved in this exercise and the corrective actions demonstrated.
- **Prior ARCAs – Unresolved** – Descriptions of ARCAs assessed during prior exercises that were not resolved in this exercise. Included is the reason the ARCA remains unresolved and recommended corrective actions to be demonstrated before or during the next biennial exercise.

The following are definitions of the two types of exercise issues that maybe discussed in this report.

- A Deficiency is defined in FEMA-REP-14 as "...an observed or identified inadequacy of organizational performance in an exercise that could cause a finding that offsite emergency preparedness is not adequate to provide reasonable assurance that appropriate protective measures can be taken in the event of a radiological emergency

to protect the health and safety of the public living in the vicinity of a nuclear power plant."

- An ARCA is defined in FEMA-REP-14 as "...an observed or identified inadequacy of organizational performance in an exercise that is not considered, by itself, to adversely impact public health and safety."

DHS/FEMA has developed a standardized system for numbering exercise issues (Deficiencies and ARCAs). This system is used to achieve consistency in numbering exercise issues among DHS Regional Offices and site-specific exercise reports within each Field Office. It also is used to expedite tracking of exercise issues on a nationwide basis.

The identifying number of Deficiencies and ARCAs includes the following elements, with each element separated by a hyphen (-).

- Plant Site Identifier – A two-digit number, corresponding to the Utility Billable Plant Site Code.
- Exercise Year – The last two digits of the year the exercise was conducted.
- Criterion Number – An alpha and two-digit number corresponding to the criteria numbers in the six Exercise Evaluation Areas described in Federal Register Notice, Vol. 67, No. 80, dated April 25, 2002, which amends FEMA-REP 14, Radiological Emergency Preparedness Exercise Manual.
- Issue Classification Identifier – (D = Deficiency, A = ARCA). Only Deficiencies and ARCAs are included in exercise reports. Planning Issues are reported to the State(s) via a letter from the Regional Director. Therefore, standardized issue numbers are not assigned to Planning Issues.
- Exercise Identification Number – A separate two- (or three-) digit indexing number assigned to each issue identified in the exercise.

4.2.1. State 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. 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: None
- d. NOT DEMONSTRATED: None
- e. PRIOR ISSUES - RESOLVED: 1.c.1.

ISSUE NO.: 34-06-1c1-A-01

ISSUE: Communication of important information between involved organizations took an excessive amount of time, and new technical data, which supported more aggressive and timely actions, was not passed along from the State REAC staff to State and County Operational Staff.

CORRECTIVE ACTION DEMONSTRATED: Participants established and maintained contact with technical counterparts, reviewed calculation procedures and resources in the period following the Alert ECL and prior to degradation of plant conditions and continually updated calculations. The REAC Manager's efficient processing of information supported timely and accurate protective action decisions. Examples of efficient processing included the issuance of a State PAR to evacuate sub-area 6 within approximately 10 minutes of receipt of the original NARS form from the Utility, and independent verification of the KI PAR to determine that the release characterization did not warrant recommending KI, also within approximately 10 minutes.

- f. PRIOR ISSUES - UNRESOLVED: None

4.2.1.3. 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

4.2.1.4. Unified Area Command

- a. MET: 1.a.1, 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

4.2.1.5. Emergency Operations Facility

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

4.2.1.6. Joint Information Center

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

ISSUE NO.: 34-06-5b1-A-02

ISSUE: News Release 1, released at 1205 hours, from the JIC, contained incorrect and conflicting information. The release listed the appropriate townships based on the sub-areas subject to the advisory, while also inappropriately indicating that the entire 10-mile EPZ was included. The message had not been approved in accordance with the state's approval process.

CORRECTIVE ACTION DEMONSTRATED: At 1020 hours (during the Site Area Emergency ECL) as a precautionary measure, the State issued a News Release to livestock owners within a 10-mile area to bring livestock in from pasture and confine them in a small area until further notice. This message was staffed through the counties and the State EOC prior to being issued. It also delineated the specific Counties and their appropriate respective townships that were included in the 10-mile area. Additional News Releases and instructions contained in the EBS Messages contained accurate information. All News Releases and instructions were approved in accordance with the State's approval process before being released to the public. These actions successfully correct previous Issue Number: 34-06-5.b.1-A-02.

f. PRIOR ISSUES - UNRESOLVED: None

4.2.1.7. Illinois State Liaison - Grundy County

- a. MET: 1.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

4.2.1.8. Illinois State Radiological Advisor - Grundy County

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

4.2.1.9. Illinois State Liaison - Kendall County

- a. MET: 1.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

4.2.1.10. Illinois State Radiological Advisor - Kendall County

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

4.2.1.11. Illinois State Liaison - Will County

- a. MET: 1.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

4.2.1.12. Illinois State Radiological Advisor - Will County

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

4.2.1.13. 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

4.2.1.14. Traffic and Access Control Point - 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

4.2.1.15. Monitoring of Evacuees and Emergency Workers Interview - Carl Sandberg High School

- 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

4.2.1.16. Decontamination of Evacuees and Emergency Workers Interview - Carl Sandberg High School

- 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

4.2.1.17. Monitoring and Decontamination of Emergency Workers Equipment Interview - Carl Sandberg High School

- 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

4.2.1.18. Public Registration Interview - Carl Sandberg High School

- 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

4.2.1.19. Congregate Care Center Interview - Carl Sandberg High School

- a. MET: 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: None
- 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

- a. MET: 1.d.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

4.2.2.4. Grundy County - EV-2 Interview - Morris School District 54

- 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 - Morris School District 101

- 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. 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

4.2.2.7. 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

4.2.2.8. 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: 5.b.1.

ISSUE NO.: 20-07-5b1-A-1

ISSUE: 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: During the County Board Chair's first media briefing at 1318 hours, media were informed that a State Livestock Advisory was in effect and that farmers should place their animals on stored feed and protected water. A news release received from the JIC several hours earlier at 1026 hours instructed local authorities to discontinue the advisory if an evacuation PAR was subsequently issued. At 1245 hours, the Board Chair decided to evacuate Sub-area 6 in Kendall County, and an evacuation PAR was broadcast (simulated) via EBS Station WSPY at 1252 hours. County authorities did not instruct EAS station WSPY to discontinue the Livestock Advisory for Kendall County, as directed by the earlier instructions received from the JIC.

POSSIBLE CAUSE: During the first media briefing, the County Board representative referred to actions being taken under the State Livestock Advisory but inadvertently failed to state that under this advisory local authorities would terminate the advisory upon issuing an evacuation PAR.

REFERENCE: E.5., E.7., G.3.a, and G.4.c

EFFECT: Information provided during the media briefing could have caused confusion for livestock farmers by directing them to simultaneously evacuate and tend to their livestock, thus delaying evacuation of those individuals and putting them at risk.

CORRECTIVE ACTION DEMONSTRATED: At 1420 hours, the Controller conducted on-the-spot training for key County officials (County Board Chair, PIO and EMC) involved in protective action decision-making and providing emergency information to the public and the media. The substance of the issue was described and discussed, and the appropriate actions to be taken were identified.

Following the training session, Kendall County officials successfully re-demonstrated this criterion by conducting a follow-up media briefing, during which mock media representatives were informed that the statement about the State Livestock Advisory provided during the first briefing was for informational purposes, and that the intention was for all citizens to immediately evacuate Sub-Area 6. She emphasized the State Livestock Advisory was no longer in effect and that farmers, as well as other members of the public, should evacuate immediately.

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

4.2.2.9. 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

4.2.2.10. Kendall County - Emergency Broadcast System Station - WSPY

- a. MET: 1.d.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

4.2.2.11. 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

4.2.2.12. 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, 3.a.1, 3.b.1, 3.c.1, 3.c.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

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

- a. MET: 1.d.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

4.2.2.14. Will County - EV-2 Interview - Elwood 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

APPENDIX 1

ACRONYMS AND ABBREVIATIONS

CFO	Chicago Field Office
EPZ	Emergency Planning Zone
IEMA	Illinois Emergency Management Agency
ISP	Illinois State Police
NRC	Nuclear Regulatory Commission
REP	Radiological Emergency Preparedness
RPCC	Radiological Preparedness Coordinating Committee

APPENDIX 2

EXERCISE EVALUATORS AND TEAM LEADERS

The following is a list of the personnel who evaluated the Dresden Nuclear Power Station REP Partial Participation Plume Exposure Pathway exercise on March 21, 2007. Evaluator Team Leaders are indicated by an asterisk "*" before their names. The organization which each evaluator represents is indicated by the following abbreviations:

DHS Department of Homeland Security
ICF ICF Consulting

<u>TITLE</u>	<u>NAME</u>	<u>ORGANIZATION</u>
Radiological Assistance Committee, Chairman	William E. King	DHS
Exercise Director	Gary Naskrent	DHS
Site Specialist	Sandra Bailey	DHS

DATE: 2007-03-21, SITE: Dresden Nuclear Power Station, IL

LOCATION	EVALUATOR	AGENCY
State Initial Warning Point	Marynette Herndon	ICF
Emergency Operations Center/State of Illinois Response Center	Frank Cordaro Marynette Herndon *Harral Logaras	ICF ICF DHS-CNPPD -CFO
Radiological Emergency Assessment Center	Thomas Essig Harry Harrison	ICF ICF
Unified Area Command	Lyle Slagle Carolyn Sturghill	ICF DHS-CNPPD -CFO
Emergency Operations Facility	Richard Grundstrom	ICF
Joint Information Center	Roy Smith	ICF
Illinois State Liaison - Grundy County	Sandra Bailey	DHS-CNPPD -CFO
Illinois State Radiological Advisor - Grundy County	Sandra Bailey Lynn Mariano Richard Wessman	DHS-CNPPD -CFO ICF ICF
Illinois State Liaison - Kendall County	Carl Bebrich	DHS-CNPPD -CFO
Illinois State Radiological Advisor - Kendall County	Carl Bebrich Clark Cofer Daniel Prevo Bart Ray	DHS-CNPPD -CFO ICF ICF ICF
Illinois State Liaison - Will County	Delwyn Kinsley	DHS-CNPPD -CFO
Illinois State Radiological Advisor - Will County	David Henry Delwyn Kinsley Richard Smith	ICF DHS-CNPPD -CFO ICF
Dosimetry Control Officer's Briefing - Illinois State Police District 5 Headquarters	Carolyn Sturghill	DHS-CNPPD -CFO
Traffic and Access Control Point - Illinois State Police District 5 Headquarters	Carolyn Sturghill	DHS-CNPPD -CFO
Monitoring of Evacuees and Emergency Workers Interview - Carl Sandberg High School	Walter Gawlak	ICF
Decontamination of Evacuees and Emergency Workers Interview - Carl Sandberg High School	Walter Gawlak	ICF
Monitoring and Decontamination of Emergency Workers Equipment Interview - Carl Sandberg High School	Walter Gawlak	ICF
Public Registration Interview - Carl Sandberg High School	Richard Grundstrom	ICF
Congregate Care Center Interview - Carl Sandberg High School	Richard Grundstrom	ICF
Grundy County - Initial Warning Point	David Petta	ICF
Grundy County - Emergency Operations Center	*Sandra Bailey Lynn Mariano Richard Wessman	DHS-CNPPD -CFO ICF ICF
Grundy County - Emergency Broadcast System Station - WCSJ	Clinton Crackel	DHS-CNPPD -CFO
Grundy County - EV-2 Interview - Morris School District 54	Clinton Crackel	DHS-CNPPD -CFO
Grundy County - EV-2 Interview - Morris School District 101	Clark Cofer	ICF

Grundy County - EV-2 Interview - Saratoga School District	Gary Bolender	ICF
Kendall County - Initial Warning Point	Jan Jackson	ICF
Kendall County - Emergency Operations Center	*Carl Bebrich Clark Cofer Daniel Prevo Bart Ray	DHS-CNPPD -CFO ICF ICF ICF
Kendall County - Traffic and Access Control Point	Jan Jackson	ICF
Kendall County - Emergency Broadcast System Station - WSPY	Gary Bolender	ICF
Will County - Initial Warning Point	David Henry	ICF
Will County - Emergency Operations Center	David Henry *Delwyn Kinsley Richard Smith	ICF DHS-CNPPD -CFO ICF
Will County - Emergency Alert System Station - WJOL/WSSR/WCCQ/WRXQ	Walter Gawlak	ICF
Will County - EV-2 Interview - Elwood School District	David Petta	ICF
* Team Leader		

APPENDIX 3

EXERCISE EVALUATION AREAS AND
EXTENT OF PLAY AGREEMENT

**STATE OF ILLINOIS EXTENT OF PLAY AGREEMENT
FOR THE
DRESDEN NUCLEAR POWER STATION EXERCISE
March 21, 2007**

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 partially activated with IEMA personnel. 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.

The Unified Area Command (UAC) will be activated with State district and regional personnel. Radiological Assessment Field Team (RAFT) and mobile lab will be activated for training purposes. IEMA personnel will be prepositioned in the local area and dispatched to the County EOCs, UAC, EOF, Technical Support Center (TSC) and the JIC. DHS will not evaluate the TSC.

The prepositioned 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) demonstration will be conducted by the Illinois State Police on March 20 at the ISP District 5 Headquarters. During this event, the availability of dosimetry will be demonstrated.

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.

The 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 demonstration will be conducted on March 19 at the ISP District 5 Headquarters.

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 demonstration will be conducted on March 19 at the ISP District 5 Headquarters.

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 demonstration will be conducted in conjunction with the DOC briefing on March 19 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 not be demonstrated during this exercise.

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 not be demonstrated during this exercise.

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 not be demonstrated during this exercise.

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 not be operated by the State during the exercise.

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.

An interview of State and local officials and inspection of Carl Sandburg High School will be conducted on March 20, at 9 a.m. The following organizations will be represented at the interview: local EMA, Police and Fire Departments, American Red Cross and IEMA. Evacuees will not be processed. Monitoring equipment will not be available at the interview/inspection.

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.

An interview of State and local officials and inspection of Carl Sandburg High School will be conducted on March 20, at 9a.m. The following organizations will be represented at the interview: local EMA, Police and Fire Department, American Red Cross and IEMA. Emergency worker equipment will not be processed. Monitoring equipment will not be available at the interview/inspection.

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.

An interview of local officials and inspection of Carl Sandburg High School will be conducted on March 20, at 9 a.m. Representatives of the American Red Cross will be present for the interview. Evacuees will not be processed. Equipment will not be available at the interview/inspection.

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 a hospital in the Dresden Station area later in 2007.

**GRUNDY COUNTY EXTENT OF PLAY AGREEMENT
FOR THE
DRESDEN NUCLEAR POWER STATION EXERCISE
March 21, 2007**

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 intends to 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 was demonstrated in the Grundy County EOC during the 2002 Dresden exercise. It 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.

Three school interviews will be conducted as followed:

Saratoga District	March 19, 2:30 p.m.
Morris District #101	March 20, 9 a.m.
Morris District #54	March 20, 10:30 a.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). 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 21, 2007**

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.I: 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.I: Facilities are sufficient to support the emergency response.

This criterion will not be demonstrated during this exercise.

Criterion 1.c.I: 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.I: 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.I: 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.

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 21, 2007**

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. If a critical incident is in progress, evaluators may be asked to leave.

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 also 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 also 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 Elwood School District on March 20, 9 a.m. in the District Office. 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.

APPENDIX 4

EXERCISE SCENARIO AND TIMELINE

EXERCISE TIME LINE

Scenario	
Winds are out of the East at 100 degrees. No precipitation. Light winds -- 4 mph.	
Unit 2 Initial Conditions	Unit 3 Initial Conditions
Unit 2 at approximately 800 MWe power following Recirc runback <ul style="list-style-type: none"> • 2B Condensate pump is OOS - overcurrent trip at approx. 0415 • Power is stabilized. CRAM rods have been inserted. 	Unit 3 is in cold shutdown- Day 10 of forced outage. <ul style="list-style-type: none"> • U-3 Generator repairs in progress • RPV head is tensioned and Drywell is closed out. • U3 Circ Water Strubber / Pipe-Support hot work preparations are in progress in the U2/3 Cribhouse
07:50	Start Scenario – Crew Assumes Shift
08:00	Report of Explosion / Fire in Crib House. <ul style="list-style-type: none"> • "B" Service Water Pump trips on overcurrent. • Fire Alarms received in MCR for Crib House.
08:05 (ALERT T ₀)	ALERT – HA6 – "Fire or Explosion affecting the operability of safety systems required to establish or maintain safe shutdown." (HA6) <ul style="list-style-type: none"> • Report of acetylene bottle falling / release of gas / explosion • Visual report of damage to Crib House door / small fires visible inside building.
08:40	Chemistry Sample Results – 1.0 µCi/gm DE I-131. No EAL escalation.
08:50	Loss of power to busses 29-1 and 29-9 <ul style="list-style-type: none"> • Breaker failure / bus damage at breaker for MOV 2-1501-28B (Inboard "B" train Containment Spray Train) • ERO can restore busses, but buswork at breaker for MOV 2-1501-28B is damaged (8 to 10 hours for repair).
09:35 (ALERT+90)	Reactor Feed Pump High vibrations / U2 Reactor SCRAM U2 Feedwater Vibrations <ul style="list-style-type: none"> • RFP "B" then "C" then Feed Station alarms, RPV level oscillations • Reactor SCRAM • Loss of all high-pressure feedwater sources • Group I isolation on low RPV level (-60").
09:40 (ALERT+95) (SAE T ₀)	Loss Of Coolant Accident in the U2 Drywell SITE AREA EMERGENCY – FS1 <ul style="list-style-type: none"> • Potential Loss of Fuel Clad – RPV level <-143" (FC2) or Loss of Fuel Clad – RPV level <-191" (FC2). • Loss of RCS – RPV level <-143" (RC2) or Loss of RCS – Drywell press > 2.0 due to RCS leakage (RC3) or DW Rad >100 R/hr with RCS leakage (RC5). Successful Drywell isolation - No Release
09:45	Drywell Radiation rises <ul style="list-style-type: none"> • Drywell Radiation reaches > 670 R/Hr (FC5)
10:45	Chemistry Sample Results – 322 µCi/gm DE I-131. Loss of Fuel Clad (FC1)
11:10 (SAE+90) (GE T ₀)	Containment Penetration failure in the Reactor Building (RWCU area) GENERAL EMERGENCY – FG1 <ul style="list-style-type: none"> • Loss of Fuel Clad – Chem sample (FC1), Drywell Radiation > 670 R/Hr (FC5) • Loss of RCS – Drywell press > 2.0 due to RCS leakage (RC3) • Loss of Containment – Rapid drop in DW pressure (CT3), Rx Bld Max Safe operating lvls (CT6) • MAX PARS (Wind Direction from 100") • RELEASE IN PROGRESS via SBGT (release path "J").
11:30 (GE+5)	Stack Effluent Monitor Readings rise (PAGS at 5 miles) Concurrent (RG1)
12:15 (GE+65)	WIND SHIFT (Wind Direction from 125")
13:15 (GE+125)	Exercise Termination