



FEMA

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

To Whom It May Concern:

Enclosed is one copy of the Final After Action Report/Improvement Plan for the March 23, 2011, Radiological Emergency Preparedness (REP) Partial Participation Plume Exposure Pathway Exercise for the Dresden Nuclear Power Station. Two copies were provided for the State of Illinois and one copy each was provided for Grundy, Kendall and Will Counties. The State of Illinois, Grundy, Kendall and Will Counties, and the utility owner/operator, Exelon Nuclear, participated in this exercise. The Final Report was prepared by the U.S. Department of Homeland Security/Federal Emergency Management Agency (DHS/FEMA) Region V, Radiological Emergency Preparedness Program.

No Deficiencies were identified for any jurisdiction during this exercise.

No Areas Requiring Corrective Action (ARCA) were identified for any jurisdiction during this exercise.

The ARCA from a previous exercise for the State of Illinois which was identified under Criterion 5.b.1 – OROs provide accurate emergency information and instructions to the public and the news media in a timely manner was resolved by the State of Illinois during this exercise.

There was one Planning Issue from a previous exercise for the State of Illinois, which remains unresolved under Criterion 5.b.1 – Information contained within the Illinois Plan for Radiological Accidents (IPRA) Volume 1, Concept of Operations, and Radiological Task Force (RTF) procedure RTF-POS-2 are not consistent in regards to the KI information that is provided to the public.

There were no Planning Issues identified for the Counties of Grundy, Kendall, or Will.

Based on the results of the March 23, 2011 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

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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 September 30, 1981, remains in effect.

Copies of this Report have been provided to the DHS/FEMA National Office, Nuclear Regulatory Commission (NRC) Region III, and the State of Illinois.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Andrew Velasquez III". The signature is fluid and cursive, with a distinct "III" at the end.

Andrew Velasquez III
Regional Administrator

Enclosure (1)



FEMA

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

Dear Mr. Satorius:

Enclosed is one copy of the Final After Action Report/Improvement Plan for the March 23, 2011, Radiological Emergency Preparedness (REP) Partial Participation Plume Exposure Pathway Exercise for the Dresden Nuclear Power Station. Two copies were provided for the State of Illinois and one copy each was provided for Grundy, Kendall and Will Counties. The State of Illinois, Grundy, Kendall and Will Counties, and the utility owner/operator, Exelon Nuclear, participated in this exercise. The Final Report was prepared by the U.S. Department of Homeland Security/Federal Emergency Management Agency (DHS/FEMA) Region V, Radiological Emergency Preparedness Program.

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There were no Planning Issues identified for the Counties of Grundy, Kendall, or Will.

Mark Satorius

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Based on the results of the March 23, 2011 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 September 30, 1981, remains in effect.

Copies of this Report have been provided to the DHS/FEMA National Office, Nuclear Regulatory Commission (NRC) Headquarters' Document Control Desk, and the State of Illinois.

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

Sincerely,



Andrew Velasquez III
Regional Administrator

Enclosures (1)



Dresden Nuclear Power Station

After Action Report/ Improvement Plan

Exercise Date - March 23, 2011

Radiological Emergency Preparedness (REP) Program



FEMA

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Radiological Emergency Preparedness Program (REP)

After Action Report/Improvement Plan

Dresden Nuclear Power Station

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EXECUTIVE SUMMARY

On March 23, 2011, a Radiological Emergency Preparedness (REP) Partial Participation Plume Exposure Pathway Exercise evaluation was conducted by the U.S. Department of Homeland Security (DHS)/Federal Emergency Management Agency (FEMA) for the 10-mile Emergency Planning Zone (EPZ) around the Dresden Nuclear Power Station (DNPS). The purpose of the exercise was to assess the capabilities of the State and local preparedness in responding to a radiological emergency. This exercise was held in accordance with DHS/FEMA's policies and guidance concerning the exercise of State and local Radiological Emergency Response Plans (RERPs) and procedures.

The most recent exercise at this site was conducted on March 25, 2009. The qualifying emergency preparedness exercise was conducted on September 30, 1981.

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

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

This After Action Report (AAR) contains the evaluation of the biennial exercise and the evaluation of the following out-of-sequence interviews and activities:

- Dosimetry Control Officers Briefing at the Illinois State Police District 5 Headquarters
- Traffic and Access Control Post at the Illinois State Police District 5 Headquarters
- Medical Services Transportation evaluation with Duffy Ambulance Service
- Medical Services Hospital evaluation at Order of Saint Francis St. James Medical Center
- Protective Actions for Schools for Channahon School District 17
- Protective Actions for Schools for Minooka School District 111
- Protective Actions for Schools for Minooka School District 201

The State and local organizations demonstrated knowledge of and adequately implemented their emergency response plans and procedures.

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

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

There was one ARCA from a previous exercise for the State of Illinois that was cleared. Criterion 5.b.1 - OROs provide accurate emergency information and instructions to the public and the news media in a timely manner - whereby the Joint Information Center did not provide to the media a complete EAS message; this criterion was successfully demonstrated during the Dresden Nuclear Power Station exercise.

INTRODUCTION - EXERCISE BASIS

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

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

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

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

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

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

A REP Partial Participation Plume Exposure Pathway Exercise was conducted on March 23, 2011, and evaluated by DHS/FEMA to assess the capabilities of State and local offsite emergency preparedness organizations in implementing their RERPs and procedures to protect the public health and safety during a radiological emergency involving the Dresden Nuclear Power Station. The purpose of this After Action Report (AAR)/Improvement Plan (IP) is to present the exercise results and findings based on the performance of the Offsite Response Organizations (OROs) during a simulated radiological emergency.

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

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

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

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

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

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

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

EMERGENCY PLANNING ZONE (EPZ) DESCRIPTION

The 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 Nuclear Power 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 Nuclear Power Station as the center point. The EPZ extends 10-miles outward in all directions from the Dresden Nuclear Power 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 nine 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 10-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 Dresden Nuclear Power 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.

SECTION 1: EXERCISE OVERVIEW

1.1 Exercise Details

Exercise Name

Dresden Nuclear Power Station

Type of Exercise

Plume

Exercise Date

March 23, 2011

Program

Department of Homeland Security/FEMA Radiological Emergency Preparedness Program

Scenario Type

Radiological Emergency

1.2 Exercise Planning Team Leadership

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Radiological Assistance Committee, Chairman

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1.3 Participating Organizations

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

State Jurisdictions

Army National Guard 5th Civil Support Team
Illinois Emergency Management Agency
Illinois Department of Transportation

Illinois Department of Corrections
Illinois Department of Finance
Illinois Department of Public Health
Illinois National Guard
Illinois Department of Natural Resources
Illinois Environmental Protection Agency
Illinois Department of Human Services
Duffy Ambulance Service
Illinois State Police
Order of Saint Francis St. James Medical Center

Risk Jurisdictions

Grundy County Emergency Management Agency
Grundy County Sheriff's Department
Grundy County Board Chairperson
Grundy County Dosimetry Control Officer
Grundy County Health Department
Grundy County Highway Department
Grundy County Public Information Officer
Kendall County Emergency Management Agency
Coal City Emergency Operations Center
Kendall County Sheriff's Department
Kendall County Board Chairperson
Kendall County Public Information Officer
Kendall County Health Department
Kendall County Highway
Kendall County Emergency Communications Coordinator
Kendall County Dosimetry Control Officer
Regional Office for Education
Minooka Emergency Operations Center
Minooka School District 201
Morris Hospital Representative
Will County Sheriff's Department
Will County Emergency Management Agency
Will County Executive

Will County Public Information Officer
Will County Radiological Officer
Village of Diamond
Channahon School District 17

SECTION 2: EXERCISE DESIGN SUMMARY

2.1 Exercise Purpose and Design

The DHS/FEMA Region V Office evaluated the Dresden Nuclear Power Station Radiological Emergency Preparedness (REP) Partial Participation Plume Exposure Pathway Exercise conducted on March 23, 2011, to assess the capabilities of local emergency preparedness organizations in implementing their Radiological Emergency Response Plans (RERP) and procedures to protect the public health and safety during a radiological emergency involving Dresden Nuclear Power Station. The purpose of this report is to present the results and findings on the performance of the Offsite Response Organizations (OROs) during a simulated radiological emergency.

2.2 Exercise Objectives, Capabilities and Activities

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

2.3 Scenario Summary

Appendix G “Scenario Details,” contains a summary of the Exercise Scenario, a simulated sequence of events that was used as the basis for invoking emergency response actions by Offsite Response Organizations (OROs) in the Dresden Nuclear Power Station REP Partial Participation Plume Exposure Pathway exercise on March 23, 2011.

This exercise scenario was submitted by the State of Illinois and Exelon Nuclear and accepted by DHS/FEMA Region V on January 24, 2011.

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

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

SECTION 3: ANALYSIS OF CAPABILITIES

3.1 Exercise Evaluation and Results

Contained in this section are the results and findings of the evaluation of all jurisdictions and functional entities that participated in the March 23, 2011, REP Partial Participation Plume Pathway Exercises to test the offsite emergency response capabilities of State and local governments in the 10-mile EPZ surrounding the Dresden Nuclear Power Station.

Each jurisdiction and functional entity was evaluated based on its demonstration of exercise criteria delineated in Federal Register Notice: Vol. 67, No. 80, dated April 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.

3.2 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 3.1 - Summary of Exercise Evaluation (3 pages)

DATE: 2011-03-23 SITE: Dresden Nuclear Power Station, IL M: Met, A: ARCA, D: Deficiency, P: Plan Issue, N: Not Demonstrated		IL-IWP---	IL-SIRC---	IL-REAC---	IL-CL Speedway-UAC--	IL-EOF---	IL-JIC---	IL-JIC/MBC---	IL-EOC GRU--IL/SL-	IL-EOC GRU--IL/SRA-	IL-EOC KEN--IL/SL-	IL-EOC KEN--IL/SRA-
Emergency Operations Management												
Mobilization	1a1	M	M	M	M	M	M					
Facilities	1b1											
Direction and Control	1c1		M	M	M	M	M					
Communications Equipment	1d1	M	M	M	M			M				
Equip & Supplies to support operations	1e1		M	M	M	M	M			M		M
Protective Action Decision Making												
Emergency Worker Exposure Control	2a1		M	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 Ingestion Pathway	2d1											
Rad Assess/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	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	P	M		M	M	M	M	M	M
Support Operations/Facilities												
Mon/Decon of evacuees and EWs and registration of evacuees	6a1											
Mon/Decon of EW worker equipment	6b1											
Temporary care of evacuees	6c1											
Transportation and treatment of contaminated injured individuals	6d1											

Table 3.1 - Summary of Exercise Evaluation (Continued, page 2/3)

DATE: 2011-03-23 SITE: Dresden Nuclear Power Station, IL M: Met, A: ARCA, D: Deficiency, P: Plan Issue, N: Not Demonstrated		IL-EOC WIL--IL/SL	IL-EOC WIL--IL/SRA-	IL-ISP D#5 HQ--DCO B-	IL-ISP D#5 HQ--TACP-	IL--Duffy AmbS-MSJT-	IL-Saint James Hosp--MSIF-	GRU-IWP---	GRU-EOC--DCO B-	GRU-EOC---	GRU-EBS-WCSJ/WIDK---	GRU--Minooka SD 111-EV2-
Emergency Operations Management												
Mobilization	1a1							M		M		
Facilities	1b1											
Direction and Control	1c1									M		
Communications Equipment	1d1				M	M	M	M		M		M
Equip & Supplies to support operations	1e1		M	M	M	M	M		M	M		M
Protective Action Decision Making												
Emergency Worker Exposure Control	2a1											
Radiological Assessment and PARs	2b1											
Decisions for the Plume Phase - PADs	2b2									M		
PADs for protection of special populations	2c1									M		
Rad Assessment and Decision making for Ingestion Pathway	2d1											
Rad Assess/Decision making concerning Relocation, Reentry, and Return	2e1									M		
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	M		M
Implementation of protective actions for special populations - EOCs	3c1									M		
Implementation of protective actions for Schools	3c2									M		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									M		
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	N	
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 EWs and registration of evacuees	6a1											
Mon/Decon of EW worker equipment	6b1											
Temporary care of evacuees	6c1											
Transportation and treatment of contaminated injured individuals	6d1					M	M					

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

DATE: 2011-03-23 SITE: Dresden Nuclear Power Station, IL M: Met, A: ARCA, D: Deficiency, P: Plan Issue, N: Not Demonstrated											
		GRU--Minooka SD 201-EV2-	KEN-IWP---	KEN-EOC---	KEN-EOC-Sheriff-TACP-	KEN-EOC KEN--DCO B-	KEN-EBS-WSPY ---	WIL-IWP---	WIL-EOC---	WIL--Channahon SD 17-EV2-	WIL-EAS-WJOL/WSSR/WCCQ/WRXQ---
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	
Equip & Supplies to support operations	1e1	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 Ingestion Pathway	2d1										
Rad Assess/Decision making concerning Relocation, Reentry, and Return	2e1			M							
Protective Action Implementation											
Implementation of emergency worker exposure control	3a1	M		M	M	M			M	M	
Implementation of KI decision	3b1	M		M	M	M			M	M	
Implementation of protective actions for special populations - EOCs	3c1			M							
Implementation of protective actions for Schools	3c2	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			M							
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		
Support Operations/Facilities											
Mon/Decon of evacuees and EWs and registration of evacuees	6a1										

Unclassified

Radiological Emergency Preparedness Program (REP)

After Action Report/Improvement Plan

Dresden Nuclear Power Station

Mon/Decon of EW worker equipment	6b1																		
Temporary care of evacuees	6c1																		
Transportation and treatment of contaminated injured individuals	6d1																		

3.3 Criteria Evaluation Summaries

3.3.1 Illinois Jurisdictions

3.3.1.1 State of Illinois - Initial Warning Point

The IEMA Communications Center located within the State Emergency Operations Center in Springfield, Illinois demonstrated the Target Capability of Emergency Operations Center Management. The Communications Center used effective procedures to alert, notify, and mobilize emergency personnel and activate facilities in a timely manner. Dispatchers were familiar with their nuclear incident notification procedures. There are redundant communication systems available at the Communications Center, and both primary and back-up systems were used effectively during this exercise.

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

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

3.3.1.2 State of Illinois - State of Illinois Response Center

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

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

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

3.3.1.3 State of Illinois - Radiological Emergency Assessment Center

The Radiological Emergency Assessment Center (REAC) effectively demonstrated the Target Capability of Emergency Operations Center Management by promptly activating and providing multi-agency coordination throughout the Radiological Emergency Preparedness Exercise at the Dresden Nuclear Power Station. The REAC Manager used a decision-making process that involved considerations of appropriate factors, including utility recommendations, plant status, release rate, dose projections, field measurements, weather conditions and knowledge of the area, and provided necessary coordination to make appropriate and timely Protective Action Recommendations (PARs) to the State of Illinois Response Center (SIRC) Manager provided consistent PARs for the protection of the public.

The Health Physics Specialist performed independent dose projections, compared dose projections and field data to formulate and validate PARs. The REAC Manager demonstrated a leadership role for the offsite response organization and provided direction and control to the response effort. The decisions of the REAC Manager were timely and based upon pertinent information received from REAC staff. The REAC Manager provided the PARs to the SIRC Manager for consideration in the decision-making process of PARs for the State of Illinois.

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

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

- f. PRIOR ISSUES - RESOLVED: None
- g. PRIOR ISSUES - UNRESOLVED: 5.b.1.

ISSUE NO.: 13-09-5b1-P-01

ISSUE: Residents of the Clinton 10-mile EPZ were not notified that they may need to ingest KI after such a recommendation was made for emergency workers and immobile persons.

REASON UNRESOLVED: The State of Illinois will no longer notify the public to ingest KI once a release of radioactive material has occurred at the Dresden Nuclear Power Station. IPRA Volume 1 has not been updated to reflect this change.

3.3.1.4 State of Illinois - Chicagoland Speedway - Unified Area Command

The State of Illinois demonstrated the Target Capability of On-Site Incident Management by coordinating radiological sampling operations required to support Protective Action Decision-making throughout the Radiological Emergency Preparedness Exercise at the Dresden Nuclear Power Station. The Unified Area Command (UAC) was well equipped with all necessary communications, equipment and supplies required for the capability of efficient communications with offsite organizations. A representative of the Illinois State Police at the UAC activated the call-down procedures in advance of evacuation orders and stationed Troopers at appropriate Traffic and Access Control Posts. The coordination efforts between the Illinois State Police, Illinois Department of Transportation and County Sheriff's Departments allowed for the effective removal of traffic impediments that occurred during the evacuation process. Throughout the exercise, the Incident Commander (IC) had frequent briefings and discussions to resolve issues as they occurred. The IC was able to pass command to the Deputy IC without any loss of continuity to the operation process. The UAC staff interacted and communicated with each other and respective agencies effectively.

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

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

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

3.3.1.5 State of Illinois - Emergency Operations Facility

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

3.3.1.6 State of Illinois - Joint Information Center

The Joint Information Center demonstrated the Target Capability of Providing Emergency Public Information from the State through the County Public Information Officers (PIOs) at the Joint Information Center (JIC). Effective procedures were used to alert, notify, and mobilize personnel and activate the facility in a timely manner. Key personnel with leadership roles provided direction and control. Emergency information and instructions were presented to the public and the news media in a timely manner.

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

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

3.3.1.7 State of Illinois - Joint Information Center/Media Briefing Center

The Joint Information Center (JIC)/Media Briefing Center (MBC) demonstrated the Target Capability of Providing Emergency Public Information from the State through the County Public Information Officers at the JIC/MBC. Key personnel with leadership roles provided direction and control. Emergency information and instructions were presented to the public and the news media in a timely manner.

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

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

ISSUE NO.: 51-10-5b1-A-01

ISSUE: Incomplete information was provided to the media. A Rock Island county fax was received at the JIC that was incomplete. Only odd number pages were received. Lacking information included travel routes to reception centers. This information was provided to the media as complete.

CORRECTIVE ACTION DEMONSTRATED: Information being faxed out from the JIC was checked for completeness and clarity. The importance of the human performance measures of 1) attention to detail, 2) validation that the information being provided is accurate, 3) verification that all of the material that was sent was received in its entirety by the other party was successfully demonstrated.

- g. PRIOR ISSUES - UNRESOLVED: None

3.3.1.8 State of Illinois - Grundy County Emergency Operations Center - Illinois State Liaison

The State of Illinois demonstrated the Target Capability of Emergency Operations Center Management during the Dresden Nuclear Power Station Radiological Emergency Preparedness Exercise on March 23, 2011.

The State Liaison assigned to Grundy County Emergency Operations Center demonstrated the capabilities of having sufficient equipment, maps, displays and other supplies to support operations.

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

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

3.3.1.9 State of Illinois - Grundy County Emergency Operations Center - Illinois State Radiological Advisor

The State of Illinois demonstrated the Target Capability of Emergency Operations Center Management during the Dresden Nuclear Power Station Radiological Emergency Preparedness Exercise on March 23, 2011.

The State Radiological Advisor assigned to Grundy County Emergency Operations Center demonstrated the capabilities of having sufficient equipment, maps, displays and other supplies to support operations.

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

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

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

3.3.1.10 State of Illinois - Kendall County Emergency Operations Center - Illinois State Liaison

The State of Illinois demonstrated the Target Capability of Emergency Operations Center Management during the Dresden Nuclear Power Station Radiological Emergency Preparedness Exercise on March 23, 2011.

The State Liaison assigned to Kendall County Emergency Operations Center demonstrated the capabilities of having sufficient equipment, maps, displays and other supplies to support operations.

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

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

3.3.1.11 State of Illinois - Kendall County Emergency Operations Center - Illinois State Radiological Advisor

The State of Illinois demonstrated the Target Capability of Emergency Operations Center Management during the Dresden Nuclear Power Station Radiological Emergency Preparedness Exercise on March 23, 2011.

The State Radiological Advisor assigned to Kendall County Emergency Operations Center demonstrated the capabilities of having sufficient equipment, maps, displays and other supplies to support operations.

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

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

3.3.1.12 State of Illinois - Will County Emergency Operations Center - Illinois State Liaison

The State of Illinois demonstrated the Target Capability of Emergency Operations Center Management during the Dresden Nuclear Power Station Radiological Emergency Preparedness Exercise on March 23, 2011.

The State Liaison assigned to Will County Emergency Operations Center demonstrated the capabilities of having sufficient equipment, maps, displays and other supplies to support operations.

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

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

3.3.1.13 State of Illinois - Will County Emergency Operations Center - Illinois State Radiological Advisor

The State of Illinois demonstrated the Target Capability of Emergency Operations Center Management during the Dresden Nuclear Power Station Radiological Emergency Preparedness Exercise on March 23, 2011.

The State Radiological Advisor assigned to Will County Emergency Operations Center demonstrated the capabilities of having sufficient equipment, maps, displays and other supplies to support operations.

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

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

3.3.1.14 State of Illinois - Illinois State Police District 5 Headquarters - Dosimetry Control Officer Briefing

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

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

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

3.3.1.15 State of Illinois - Illinois State Police District 5 Headquarters - Traffic and Access Control Post

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

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

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

3.3.1.16 State of Illinois - Duffy Ambulance Service - Medical Service - Transportation

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

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

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

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

3.3.1.17 State of Illinois - Saint James Hospital - Medical Service - Facility

The State of Illinois (Order of Saint Francis (OSF) Saint James Medical Center) demonstrated the Target Capability that they have proper space, resources, and trained personnel to monitor decontaminate and provide medical services to contaminated injured individuals. They aligned the ambulance stretcher aside a hospital stretcher. The patient was carefully transferred across the REA control line to the hospital stretcher. The patient was then wheeled into the decontamination room by the hot zone nurse and EMS responder working at the hospital. They also demonstrated their ability to issue appropriate dosimetry and manage radiological exposure to emergency workers. The Illinois Emergency Management Agency (IEMA) Medical Radiation Technician (MRT) told the Nuclear Medicine Technician that he would monitor the ambulance, ambulance bay and attendants. He would check in when all outside monitoring activities were complete. The availability of dosimetry and potassium iodide (KI) for hospital personnel was not demonstrated during this drill; however an Illinois Emergency Management Agency (IEMA) Medical Radiation Technician (MRT) was issued dosimetry and KI as a field team member and responded to the hospital.

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

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

3.3.2 Risk Jurisdictions

3.3.2.1 Grundy County - Initial Warning Point

The Grundy County Sheriff's Department 911 Dispatch Center, demonstrated the Target Capability of Emergency Operations Center Management as the Grundy County Initial Warning Point for radiological incidents at the Dresden Nuclear Power Station (DNPS). The County Sheriff's dispatcher used appropriate procedures to accurately record information received from DNPS and accurately relayed that information to the Grundy County Emergency Management Director. A variety of primary and back-up communications systems were demonstrated during the exercise.

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

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

3.3.2.2 Grundy County - Emergency Operations Center - Dosimetry Control Officer Briefing

The Grundy County Dosimetry Control Officer (DCO) demonstrated the Target Capability by issuing appropriate dosimetry and procedures, and managed radiological exposure to emergency workers in accordance with the plans and procedures. Emergency workers periodically and at the end of each mission read their dosimeters and recorded the readings on the appropriate exposure record.

Each dosimetry kit contained one Dosimetry Corporation of America (DCA) Model 622 0-20 R Direct-Read Dosimeter (DRD) exchanged in January 2011, one inSight Systems Landauer luminescent dosimeter (LD), dated July 2010 – June 2012, 14 iOSAT 130 mg KI tablets in a foil pack (expiration date extended to June 2011), instructions and precautions for taking KI, a dosimetry instructions card, and a radiation exposure record. When the decision was made for

emergency workers to ingest KI, the Grundy County DCO advised that area dosimetry would be done for the EOC area and certain individuals would be issued personal dosimetry. One individual issued personal dosimetry was the dispatcher in the EOC. KI and appropriate instructions were available when the decision to recommend use of KI was made. Appropriate record keeping of the administration of KI for emergency workers and institutionalized individuals (not the general public) was maintained.

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

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

3.3.2.3 Grundy County - Emergency Operations Center

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

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

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

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

3.3.2.4 Grundy County - Emergency Broadcast System Station - WCSJ/WJDK

This area was not demonstrated during this exercise.

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

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

3.3.2.5 Grundy County - Minooka School District 111 - Evacuation School

The Minooka Community High School District #111, demonstrated the Target Capability, by demonstrating the ability to implement protective actions for schools. The two campuses which comprise Minooka High School District #111 are the Minooka High School Central Campus, located in Minooka, and the Minooka High School South Campus, located in Channahon. Freshman and sophomores attend the central campus, with juniors and seniors attending the south campus. The schools are located approximately five miles from the plant. Twenty-five hundred students attend these schools, with approximately 150 teachers and 50 support staff. There are 400 parking permits for students, with the large remainder of them utilizing buses. Upon activation of the Grundy County EOC, the Regional Office of Education Superintendent reports to the County EOC and serves as the School Services Officer.

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

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

3.3.2.6 Grundy County - Minooka School District 201 - Evacuation School

The Minooka Consolidated School District #201 demonstrated the Target Capability by making appropriate decisions and implementing protective actions for their respective schools. The Minooka Consolidated School District #201 consists of seven schools grades K-8, all within 4-5 miles of the DNPS. The student enrollment is 3927 and the employee population is approximately 500. Transportation is provided by 67 full size buses, one small bus, and five vans with the capability to move all school children at one time. A nurse is present in each building to provide medical assistance if needed. An additional vehicle for the transportation of disabled students is requested through the Grundy County EOC.

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

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

3.3.2.7 Kendall County - Initial Warning Point

The Kendall County Communication Center (KENCOC), demonstrated the Target Capability of Emergency Operations Center Management as the Kendall County Initial Warning Point for radiological incidents at the Dresden Nuclear Power Station (DNPS).

Kendall County demonstrated their capabilities to implement Initial Notifications in accordance with plans and procedures through the KENCOC Telecommunicator via the Nuclear Accident

Reporting System (NARS) dedicated telephone line which connected the Dresden Nuclear Power Station, the State of Illinois Emergency Management Agency (IEMA), Kendall, Will and Grundy Counties. The KENCOM Telecommunicator acknowledged his presence over a roll call that was utilized by the IEMA on a NARS dedicated telephone line and began transcribing information being provided on a blank NARS form. Following the initial call, a follow up call was made back to the State EOC to verify the information. After verification, a NARS message (State Message No. 1) was created and passed to the Kendall County EMA and verified by the EMA Coordinator. The EMA Coordinator instructed the Telecommunicator to contact the Kendall County Board Chairman, and complete the call down list and activate the County-wide paging system for EOC staff. The KENCOM Telecommunicator conducted the call down list procedure to notify all/any Emergency operations Center staff.

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

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

3.3.2.8 Kendall County - Emergency Operations Center

The Kendall County Emergency Operations Center (EOC) demonstrated the Target Capability of Emergency Operations Center Management including the use of effective procedures to alert, notify and mobilize emergency personnel and activate facilities in a timely manner.

The Kendall County Emergency Operations Center demonstrated their capabilities to implement effective procedures to alert, notify and mobilize emergency personnel and activate facilities in a timely manner. During the Dresden Nuclear Power Station (DNPS) Radiological Emergency Preparedness Exercise, these procedures were implemented at the Kendall County Emergency Operations Center (EOC). After receiving the initial call from the KENCOM Telecommunicator, the EMA Coordinator demonstrated giving instructions to the KENCOM Telecommunicator to activate the EOC, and to notify County officials and staff in accordance with procedures. The EMA Coordinator responded by reviewing the most current information available for the DNPS

and ensuring that a sign-in station was established and staffed. He also directed incoming staff to check their telephones for operability, logged key actions taken and assigned staff to security, telecommunication, facsimile/copy, electronic event log, and dosimetry control functions. He established communications with adjacent Risk Counties (Grundy and Will), and ensured that all key EOC functions were filled and provided incoming staff with situational awareness, and determined when to declare the EOC Operational.

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

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

3.3.2.9 Kendall County - Emergency Operations Center - Sheriffs Department - Traffic and Access Control Post

Kendall County demonstrated the Target Capability of Emergency Public Safety and Security Response through interview. The Kendall County Sheriff's Department Liaisons indicated that there was a total of 26 TACPs as identified in the Dresden Station Emergency Planning Zone (EPZ) for Kendall County. The Kendall County Sheriff's Department was responsible for establishing 19 of these points and the Illinois State Police was responsible for establishing the additional seven. It was also explained that the Sheriff's Deputy would arrive at the EOC and be dispatched to a TACP. The Deputy would be issued a designated TACP to man and would direct traffic north, south, east, or west to avoid an accident or prevent the public from entering into the 10-mile EPZ. If additional TACP items are needed, the Sheriff's Deputy would contact KENCOM.

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

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

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

3.3.2.10 Kendall County - Emergency Operation Center - Dosimetry Control Officer Briefing

The Kendall County Dosimetry Control Officer (DCO) demonstrated the Target Capability by issuing appropriate dosimetry and procedures, and managed radiological exposure to emergency workers in accordance with the plans and procedures. Emergency workers periodically and at the end of each mission read their dosimeters and recorded the readings on the appropriate exposure record.

Emergency workers understood to periodically and at the end of each mission read and record dosimeter readings. The demonstration was conducted by Dosimetry Control Officer (DCO), Assistant DCO, Sheriff's Office personnel, and advised by the IEMA Radiological Liaison in the Kendall County Emergency Operations Center (EOC).

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

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

3.3.2.11 Kendall County - Emergency Broadcast System Station - WSPY

Kendall County demonstrated the Target Capability of Emergency Public Information and Warning associated with primary alerting and notification of the public in a timely manner. Following the decision by Will County emergency management officials to notify the public of an emergency situation at the Dresden Nuclear Power Station (DNPS), Radio station WSPY

personnel demonstrated a thorough understanding of their equipment, the EAS process and executed their duties in a timely and professional manner.

An interview and demonstration was conducted during the exercise at the WSPY FM facility. During the interview process, the Station Manager explained that radio station WSPY FM 107.1, serves as the primary radio station for Kendall County EAS broadcasts and is used to distribute public information concerning incidents at the DNPS. The radio station is not a 24-hour station; however, in the event that the Kendall County Emergency Operation Center (EOC) would need to broadcast a message after hours, a Sage-ENDAC EAS encoder, linked by UHF radio to the station transmitter allows them to interrupt normal broadcasting and transmit directly from the EOC. The Kendall County Emergency Operations Center (EOC) also has the capability to remotely access and broadcast an EAS message through the radio station at any time, overriding normal programs at three radio stations, WSPY, WSQR and WBYG. This option is for fast breaking emergencies does not require advance coordination with the radio stations.

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

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

3.3.2.12 Will County - Initial Warning Point

Will County demonstrated the Target Capability of Emergency Operations Center Management at the Initial Warning Point, located in the Will County Sheriff's Dispatch Center. The dispatchers demonstrated the ability to alert, notify, and mobilize emergency personnel in a timely manner. The dispatchers were familiar with the nuclear incident notification procedures, demonstrated the redundant communication systems available at the Dispatch Center, and used both primary and backup systems effectively during this exercise.

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

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

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

3.3.2.13 Will County - Emergency Operations Center

Will County demonstrated the Target Capability of Emergency Operations Center (EOC) Management including the use of effective procedures to alert, notify and mobilize emergency personnel and activate facilities in a timely manner. The Will County EOC demonstrated sufficient multi-agency coordination to respond to an incident at the Dresden Nuclear Power Station (DNPS) through timely activation and efficient operations throughout the exercise. The EOC was managed efficiently and effectively, completed a partial notification and activation, and staffed in accordance with the extent-of-play agreement. The County Executive and Emergency Management Agency Director provided effective management, direction and control throughout the exercise. The Will County EOC coordinated decision-making with the State of Illinois Response Center (SIRC), Unified Area Command (UAC), Joint Information Center (JIC), other risk counties, municipalities, and special facilities within the DNPS 10-mile Emergency Planning Zone (EPZ) and ensured that a clear and consistent message was communicated to the public.

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

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

3.3.2.14 Will County - Channahon School District 17 - Evacuation School

Will County demonstrated the Target Capability of Citizen Evacuation and Shelter-in-Place for school children through out-of-sequence interview. The Channahon School District representatives described plans and procedures to safely evacuate students from the Dresden Nuclear Power Station (DNPS) 10-mile Emergency Planning Zone (EPZ) and reunite them with their families. The school district official demonstrated sufficient personnel, emergency worker dosimetry, transportation and communications capabilities to evacuate the students and staff as well as current contact information and communications capabilities required to notify and inform families and guardians regarding how to reunite with the evacuated students.

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

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

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

Will County demonstrated the Target Capability of Emergency Public Information and Warning associated with primary alerting and notification of the public in a timely manner. Following the decision by Will County emergency management officials to notify the public of an emergency situation at the Dresden Nuclear Power Station (DNPS), Radio station WJOL personnel in Crest City, Illinois, demonstrated a thorough understanding of their equipment, the EAS process and executed their duties in a timely and professional manner.

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

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

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

SECTION 4: CONCLUSION

No Deficiencies were identified for any jurisdiction during this exercise.

No Areas Requiring Corrective Actions (ARCAs) were identified for any jurisdiction during this exercise.

Based on the results of the March 23, 2011, 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 September 30, 1981, remains in effect.

APPENDIX A: IMPROVEMENT PLAN

Issue Number: 13-09-5b1-P-01		Criterion: 5b1
<p>ISSUE: Residents of the Clinton 10-mile EPZ were not notified that they may need to ingest KI after such a recommendation was made for emergency workers and immobile persons.</p>		
<p>RECOMMENDATION: Review the information contained within the IPRA and RTF-PARS-2 regarding KI information that is provided to the public and revise the procedures as required to ensure that they contain the same information and direction.</p>		
<p>CORRECTIVE ACTION DESCRIPTION:</p> 		
CAPABILITY:	PRIMARY RESPONSIBLE AGENCY:	
CAPABILITY ELEMENT:	START DATE:	
AGENCY POC:	ESTIMATED COMPLETION DATE:	

APPENDIX B: BEST PRACTICES

1. School communication to parents

Summary: Teacher Ease: email notification to parents

School Messenger: phone notification to parents

Description: The Minooka School District #201 utilized a system called Teacher Ease, which could relay information to parents by email, and another system called School Messenger, which relayed information to parents by calling all listed phone numbers until a connection was completed. These systems were used to notify parents when school children were enroute to host schools in the event of a radiological emergency.

2. Communication

Summary: Primary and secondary communications systems link the nuclear power station, Federal and State agencies and local governments on a 24-hour basis. The primary system known as NARS connects the utility and surrounding counties and even the state of Iowa for seamless instant communication.

Description: The NARS is a highly efficient communications network which perpetuates a cohesive and coordinated response of all participants during a radiological accident.

3. Exceptional Teamwork

Summary: Demonstrated strengths:

The Grundy County Emergency Operations Center had an exceptionally efficient, streamlined and cohesive team approach in regards to handling public information coordination, identifying potential rumor trends and managing the flow of incoming and outgoing messages. The team consisted of a Media Message Manager, Rumor Control Manager and a Public Information Officer. In particular each incoming message was discussed promptly among the team and with all relevant EOC representatives.

Description: The Public Information Officer (PIO) demonstrated a proactive approach specifically in identifying potential rumor trends. By consistently checking and requesting updates from the Rumor Control Manager, the PIO was able to quickly determine and communicate to the EOC Manager whether any rumor trends were developing.

APPENDIX C: 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 23, 2011, for the Dresden Nuclear Power Station.

Table 1 - Exercise Timeline
DATE: 2011-03-23, SITE: Dresden Nuclear Power Station, IL

Emergency Classification Level or Event	Time Utility Declared	IL-SIRC---	IL-REAC---	IL-CL Speedway-UAC--	IL-JIC---	GRU-EOC---	KEN-EOC---
Unusual Event	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alert	0816	0828	0833	0851	0913	0850	0849
Site Area Emergency	0947	0959	1002	1020	1028	1015	1011
General Emergency	1117	1127	1127	1139	1157	1145	1149
Simulated Rad. Release Started	1110	1127	1112	1139	1157	1145	1149
Simulated Rad. Release Terminated	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Facility Declared Operational		0905	0900	0840	1015	0927	0930
Declaration of State of Emergency		1059	N/A	N/A	N/A	0944	1230
Exercise Terminated		1300	1239	1300	1310	1300	1312
Early Precautionary Action Decision: Order to Evacuate State Parks and Hunting Areas		1059	N/A	1023	N/A	N/A	N/A
Early Precautionary Action Decision: Livestock Advisory: Sheltered/Placed on Stored Feed		1009	1009	N/A	N/A	1114	1109
Early Precautionary Action Decision: Restricted Air, Water, and Rail Traffic within 5/10 miles		1112	1059	1117	N/A	N/A	1138
Early Precautionary Action Decision: Evacuate Schools and/or Special Populations		N/A	N/A	N/A	N/A	1145	1043
General Information Message		N/A	N/A	0934	N/A	0925	1030
1st Siren Activation		N/A	N/A	N/A	N/A	N/A	1040
1st EAS Message		N/A	N/A	N/A	N/A	N/A	1041
1st Protective Action Recommendation: Evacuation of Sub-Areas 1, 3, 4, 6, 12		1131	1113	1139	N/A	1145	1149
1st Protective Action Decision: Evacuation		N/A	N/A	N/A	N/A	1155	1153
1st Siren Activation		N/A	N/A	N/A	N/A	1200	1155
1st EAS Message		N/A	N/A	N/A	N/A	1203	1156
KI Administration Decision: Emergency Workers and Immobile Populations		1131	1131	1139	N/A	1145	1153

Table 1 - Exercise Timeline
DATE: 2011-03-23, SITE: Dresden Nuclear Power Station, IL

Emergency Classification Level or Event	Time Utility Declared	WIL-EOC---
Unusual Event	N/A	N/A
Alert	0816	0847
Site Area Emergency	0947	1013
General Emergency	1117	1146
Simulated Rad. Release Started	1110	1146
Simulated Rad. Release Terminated	N/A	N/A
Facility Declared Operational		0920
Declaration of State of Emergency		1125
Exercise Terminated		1310
Early Precautionary Action Decision: Order to Evacuate State Parks and Hunting Areas		N/A
Early Precautionary Action Decision: Livestock Advisory: Sheltered/Placed on Stored Feed		1115
Early Precautionary Action Decision: Restricted Air, Water, and Rail Traffic within 5/10 miles		1131
Early Precautionary Action Decision: Evacuate Schools and/or Special Populations		1113
General Information Message		1024
1st Siren Activation		1024
1st EAS Message		1025
1st Protective Action Recommendation: Evacuation of Sub-Areas 1, 3, 4, 6, 12		1146
1st Protective Action Decision: Evacuation		1152
1st Siren Activation		1154
1st EAS Message		1155
KI Administration Decision: Emergency Workers and Immobile Populations		1145

APPENDIX D: EXERCISE EVALUATORS AND TEAM LEADERS

The following is a list of the personnel that evaluated the Dresden Nuclear Power Station REP Partial Participation Plume Exposure Pathway Exercise on March 23, 2011. The list includes the evaluation team leadership and all evaluators. The organization each evaluator represents is indicated by the following abbreviations:

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

ICF Consulting

Title	Name	Organization
Radiological Assistance Committee, Chairman	William E. King	DHS/FEMA
Exercise Director	Dwaine Warren	DHS/FEMA
Exercise Officer	Stephen Tulley	DHS/FEMA
Site Specialist	Deborah Fulk	DHS/FEMA
Team Leader - Illinois	Todd M. Gemskie	DHS/FEMA
Team Leader – Grundy County	James King	DHS/FEMA
Team Leader – Kendall County	Carolyn Sturghill	DHS/FEMA
Team Leader – Will County	Karl Rabenhorst	DHS/FEMA

DATE: 2011-03-23, SITE: Dresden Nuclear Power Station, IL

LOCATION	EVALUATOR	AGENCY
State of Illinois - Initial Warning Point	Michael Meshenberg	ICF
State of Illinois - State of Illinois Response Center	Kerris Bates Michael Meshenberg	DHS/FEMA ICF
State of Illinois - Radiological Emergency Assessment Center	Marcy Campbell David Jacobson	ICF ICF
State of Illinois - Chicagoland Speedway - Unified Area Command	Louis Sosler Bruce Swiren	ICF ICF
State of Illinois - Emergency Operations Facility	Roy Smith	ICF
State of Illinois - Joint Information Center	John Simpson	DHS/FEMA
State of Illinois - Joint Information Center/Media Briefing Center	Roy Smith	ICF
State of Illinois - Grundy County Emergency Operations Center - Illinois State Liaison	James King	DHS/FEMA
State of Illinois - Grundy County Emergency Operations Center - Illinois State Radiological Advisor	James King	DHS/FEMA
State of Illinois - Kendall County Emergency Operations Center - Illinois State Liaison	Carolyn Sturghill	DHS/FEMA
State of Illinois - Kendall County Emergency Operations Center - Illinois State Radiological Advisor	Carolyn Sturghill	DHS/FEMA
State of Illinois - Will County Emergency Operations Center - Illinois State Liaison	Karl Rabenhorst	DHS/FEMA
State of Illinois - Will County Emergency Operations Center - Illinois State Radiological Advisor	Karl Rabenhorst	DHS/FEMA
State of Illinois - Illinois State Police District 5 Headquarters - Dosimetry Control Officer Briefing	Delwyn Kinsley	DHS/FEMA
State of Illinois - Illinois State Police District 5 Headquarters - Traffic and Access Control Post	Christopher Bellone	DHS/FEMA
State of Illinois - Duffy Ambulance Service - Medical Service - Transportation	Roy Smith	ICF
State of Illinois - Saint James Hospital - Medical Service - Facility	Marcy Campbell	ICF
Grundy County - Initial Warning Point	Clinton Crackel	DHS/FEMA
Grundy County - Emergency Operations Center - Dosimetry Control Officer Briefing	Deborah Fulk	DHS/FEMA
Grundy County - Emergency Operations Center	Clinton Crackel Kaori Flores Richard Grundstrom	DHS/FEMA DHS/FEMA ICF
Grundy County - Emergency Broadcast System Station - WCSJ/WJDK	Clinton Crackel	DHS/FEMA
Grundy County - Minooka School District 111 - Evacuation School	Bruce Swiren	ICF
Grundy County - Minooka School District 201 - Evacuation School	Louis Sosler	ICF
Kendall County - Initial Warning Point	Delwyn Kinsley	DHS/FEMA
Kendall County - Emergency Operations Center	Carl Bebrich Brian Hasemann Delwyn Kinsley Kara Scott	DHS/FEMA DHS/FEMA DHS/FEMA DHS/FEMA
Kendall County - Emergency Operations Center - Sheriffs Department - Traffic and Access Control Post	Patricia Mason	FEMA (2)
Kendall County - Emergency Operation Center - Dosimetry Control Officer Briefing	Carl Bebrich	DHS/FEMA
Kendall County - Emergency Broadcast System Station - WSPY	Delwyn Kinsley	DHS/FEMA

Unclassified

Radiological Emergency Preparedness Program (REP)

After Action Report/Improvement Plan

Dresden Nuclear Power Station

Will County - Initial Warning Point	Christopher Bellone	DHS/FEMA
Will County - Emergency Operations Center	Bridget Ahlgrim John Arszulowicz	DHS/FEMA DHS/FEMA
Will County - Channahon School District 17 - Evacuation School	Clinton Crackel	DHS/FEMA
Will County - Emergency Alert System Station - WJOL/WSSR/WCCQ/WRXQ	Christopher Bellone	DHS/FEMA
* Team Leader		

APPENDIX E: ACRONYMS AND ABBREVIATIONS

Acronym	Meaning
AAR	After Action Report
ANI	American Nuclear Insurers
CDE	Committed Dose Equivalent
DCO	Dosimetry Control Officer
DDP	Dosimetry Distribution Point
DNPS	Dresden Nuclear Power Station
DRD	Direct- Reading Dosimeter
EAL	Emergency Action Levels
EAS	Emergency Alert System
ECL	Emergency Classification Level
ED	Emergency Department
EMA	Emergency Management Agency
EMS	Emergency Medical System
EOC	Emergency Operation Center
EOF	Emergency Operations Facilities
EPZ	Emergency Planning Zone
FEMA	Federal Emergency Management Agency
GCBC	Grundy County Board Chairman
GCEMD	Grundy County Emergency Management Director
GE	General Emergency
GEMS	Gaseous Effluent Monitoring System
GIS	Global Information System
HP	Health Physics
IAP	Incident Action Plan
IC	Incident Commander
IEMA	Illinois Emergency Management Agency
IP	Improvement Plan
IPZ	Ingestion Pathway Zone
ISP	Illinois State Police
ISPERN	Illinois State Police Emergency Radio Network
ITEC	Illinois Tactical Emergency Communications
IWP	Initial Warning Point
JIC	Joint Information Center
LCD	Liquid Crystal Display

LD	Luminescent Dosimeter
LEADS	Law Enforcement Agency Data System
MBR	Media Briefing Room
MRT	Medical Radiation Technician
NARS	Nuclear Accident Reporting System
NRC	Nuclear Regulatory Commission
NWS	National Weather Service
ORO	Offsite Response Organization
OSL	Optically Stimulated Luminescent
PAD	Protective Action Decision
PAG	Protective Action Guide
PAR	Protective Action Recommendation
PIO	Public Information Officer
RAC	Regional Assistance Committee
RAFT	Radiological Assessment Field Teams
REA	Radiological Emergency Area
REAC	Radiological Emergency Assessment Center
REP	Radiological Emergency Preparedness
RS	Reactor Specialists
SAE	Site Area Emergency
SEOC	State Emergency Operations Center
SIRC	State Incident Response Center
SOP	Standard Operating Procedure
TEDE	Total Effective Dose Equivalent
TSC	Technical Support Center
UAC	Unified Area Command

APPENDIX F: EXERCISE PLAN

This appendix lists the exercise criteria, which were scheduled for demonstration in the Dresden Nuclear Power Station Radiological Emergency Preparedness Partial Participation Plume Exposure Pathway Exercise on March 23, 2011 and the offsite extent-of-play agreement accepted by DHS/FEMA Region V on January 24, 2011.

The exercise criteria, contained in the FEMA “Radiological Emergency Preparedness Exercise Evaluation Methodology; Notice,” as published in the Federal Register Notice/Vol. 67, dated April 25, 2002, represent a functional translation of the planning standards and evaluation criteria of NUREG-0654/FEMA-REP-1, Rev. 1, “Criteria for the Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants,” November 1980. Because the exercise criteria are intended for use at all nuclear power plant sites, and because of variations among offsite plans and procedures, an extent-of-play agreement is prepared by the State and accepted by DHS/FEMA to provide evaluators with guidance on expected actual demonstration of the criteria.

Exercise Criteria

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

**STATE OF ILLINOIS EXTENT OF PLAY AGREEMENT
FOR THE
DRESDEN NUCLEAR POWER STATION EXERCISE
March 23, 2011**

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 roster will be available for review; however, it will not be removed from the EOC.

The Unified Area Command (UAC) will be activated at the Chicagoland Speedway 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, Unified Area Command (UAC), Emergency Operations Facility (EOF), Technical Support Center (TSC) and the JIC. FEMA will not evaluate the TSC.

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

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) interview will be conducted by the Illinois State Police on March 22 at 4:00 pm 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.

To support the demonstration in Kendall and Grundy counties, the State of Illinois will participate in this criterion; however, State demonstration will not be evaluated.

EVALUATION AREA 3 - PROTECTIVE ACTION IMPLEMENTATION

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

This will be demonstrated during the ISP DCO briefing/TAC interview will be conducted on March 22 at 4:00 pm 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 interview will be conducted on March 22 at 4:00 pm 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 interview will be conducted in conjunction with the DOC briefing on March 22 at 4:00 pm 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.

This criterion will not be demonstrated during this exercise. All reception centers/emergency worker facilities have successfully demonstrated this criterion in the last 6 years.

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

This criterion will not be demonstrated during this exercise. All reception centers/emergency worker facilities have successfully demonstrated this criterion in the last 6 years.

Criterion 6.c.1: Managers of congregate care facilities demonstrate that the centers have resources to provide services and accommodations consistent with American Red Cross planning guidelines. Managers demonstrate the

procedures to assure that evacuees have been monitored for contamination and have been decontaminated as appropriate prior to entering congregate care facilities.

This criterion will not be demonstrated during this exercise. All reception centers/emergency worker facilities have successfully demonstrated this criterion in the last 6 years.

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 scheduled at OSF St. James Hospital in Pontiac, IL on March 22, 2011 at 10:00 a.m..

**GRUNDY COUNTY EXTENT OF PLAY AGREEMENT
FOR THE
DRESDEN NUCLEAR POWER STATION EXERCISE
March 23, 2011**

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. The roster will be available for review; however, it will not be removed 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.

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

This criterion will not be demonstrated during this exercise.

Criterion 1.c.1: Key personnel with leadership roles for the ORO provide direction and control to that part of the overall response effort for which they are responsible.

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

Criterion 1.d.1: At least two communication systems are available, at least one operates properly, and communication links are established and maintained with appropriate locations. Communications capabilities are managed in support of emergency operations.

Grundy County will use NARS, commercial telephone, cellular telephone, electronic mail, 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.

The Grundy County EOC staff will demonstrate this criterion through discussions within the Grundy County EOC and with REAC and UAC as appropriate. The controller will provide break messages, which will contain the predesigned State recommendation regarding relocation, re-entry and return. The Grundy County EOC staff will discuss the State's recommendation and determine whether to follow that recommendation or another of the County's choosing. The State will participate to the extent necessary to support Grundy County.

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.

School interviews will be conducted with representatives of Minooka Consolidated District #201 on March 22 at 9:00 am and Minooka Community High School District #111 on March 22 at 10:00 am. Both interviews will be conducted at the Minooka Consolidated District #201 board room.

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

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 be demonstrated through discussions in the Grundy County EOC. Grundy County EOC staff will coordinate with REAC, UAC, and the JIC as appropriate. The State will participate to the extent necessary to support Grundy County.

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 23, 2011**

Criteria that can be re-demonstrated immediately for credit, at the discretion of the evaluator, include the following: 3.a.1, 3.d.1, 3.d.2, 6.a.1, 6.b.1, 6.c.1 and 6.d.1. Criteria that may be re-demonstrated, as approved on a case-by-case basis by the Chairperson of the Radiological Preparedness Coordinating Committee, include the following: 2.a.1, 2.b.1, 2.b.2, 5.a.1 and 5.b.1.

EVALUATION AREA 1 - EMERGENCY OPERATIONS MANAGEMENT

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

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

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

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

This criterion will not be demonstrated during this exercise.

Criterion 1.c.1: Key personnel with leadership roles for the ORO provide direction and control to that part of the overall response effort for which they are responsible.

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

Criterion 1.d.1: At least two communication systems are available, at least one operates properly, and communication links are established and maintained with appropriate locations. Communications capabilities are managed in support of emergency operations.

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

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

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

EVALUATION AREA 2 - PROTECTIVE ACTION DECISION MAKING

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

This criterion does not apply to Kendall County.

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

This criterion does not apply to Kendall County.

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

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

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

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

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

This criterion does not apply to Kendall County.

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

The Kendall County EOC staff will demonstrate this criterion through discussions within the Kendall County EOC and with REAC and UAC as appropriate. The controller will provide break messages which will contain the predesignated State recommendation regarding relocation, re-entry and return. The Kendall County staff will discuss the State's recommendation and determine whether to follow that recommendation or another of the County's choosing. The State will participate to the extent necessary to support Kendall County.

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 (TAC) demonstration. The DCO briefing for the Sheriff's deputy demonstrating traffic and access control will be conducted at the Kendall County EOC.

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

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

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

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 may be asked to 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 be demonstrated through discussions in the Kendall County EOC. Kendall County EOC staff will coordinate with REAC, UAC, and the JIC as appropriate. The State will participate to the extent necessary to support Kendall County.

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 23, 2011**

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. The roster will be available for review; however, it will not be removed 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.

Will County will demonstrate this criterion by 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 be demonstrated during the school interview at Channahon School District.

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, Will County officials will discuss the issuance of KI to emergency workers and immobile populations, as a voluntary measure, and will notify municipal officials, as applicable, of the State's recommendation.

This criterion will be demonstrated during the school interview at the Channahon School District.

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 Channahon School District #17 on March 16, 2011, at 11:00 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 G: SCENARIO DETAILS

This appendix contains a summary of the Exercise Scenario, a simulated sequence of events, that was used as the basis for invoking emergency response actions by Offsite Response Organizations (OROs) in the Dresden Nuclear Power Station REP Partial Participation Plume Exposure Pathway exercise on March 23, 2011.

Results of a technical review of the scenario, submitted by the State of Illinois and Exelon Nuclear on January 24, 2011, indicated that the scenario was adequate to support demonstration of Department of Homeland Security's requirements, as well as criteria selected by the OROs provided in the State's January 19, 2011, final extent-of-play submission.

This exercise scenario was accepted by DHS/FEMA Region V on February 7, 2011.

During the exercise, in addition to information and data provided through the Dresden Station onsite scenario, controllers from the State of Illinois gave "inject messages" containing scenario events and/or relevant data to those persons or locations who would normally receive notification of such events. The inject messages were the method used for invoking additional specific response actions by OROs.

DHS/FEMA concurred with the offsite scenario and extent-of-play submission for the State of Illinois, Grundy, Kendall and Will Counties for the March 23, 2011 Biennial Radiological Emergency Preparedness Exercise for the Dresden Nuclear Power Station.

Dresden Station ALERT Scenario Summary

0810 – 0940

Diesel Generator Crankcase Explosion and Cardox Discharge

At 0810, the CR Crew will receive a message that the U2 Diesel Generator (DG) has suffered an explosion and Cardox is discharging into the DG room. The Non-Licensed Operator monitoring the surveillance exited the room and is on the scene giving reports.

At 0820, the CR Crew will receive a message that there is no fire in the U2 DG room, the Cardox discharge has automatically terminated and there are no injuries. At 0900, U3 TB vent trips.

Expected Actions

The Operating Crew should respond by following the actions of the prescribed procedures. The Shift Manager should declare either HA6 “Fire or explosion affecting operability of systems required to establish or maintain safe shutdown” or HA7 “Release of toxic or flammable gases within or restricting access to a Vital Area.” [T₀=when the explosion occurs, or CO₂ discharges]

All appropriate notifications should be performed, and the Dialogic System should be activated. The Operating Crew may contemplate calling in extra personnel to assist with monitoring the control boards. Command and Control should be transferred as soon as practicable.

Operations will continue with follow-up actions such as ventilating the EDG room, preparing the room re-entry for inspection, and establishing a Fire Watch.

Approx. Time

Event/Anticipated Offsite Response

0800	Initial conditions/weather forecast message to players.
0810	An Alert is declared at Dresden Station.
0825	Exelon notifies the IEMA Telecommunicator of the ALERT via NARS. IEMA Telecommunicator verifies the NARS message. An IEMA Duty Officer contacts the Dresden Station Shift Engineer. IEMA Telecommunicator notifies IEMA personnel of the ALERT per SOP. IEMA may activate the State of Illinois Response Center (SIRC) and Radiological Emergency Assessment Center (REAC), if appropriate. IEMA may dispatch liaisons to the County EOCs, Unified Area Command (UAC), Radiological Assessment Field Team (RAFT) Staging Area, Joint Information Center (JIC), Technical Support Center (TSC) and Emergency Operations Facility (EOF), if appropriate.

IEMA notifies Governor's Office of the ALERT. (Simulated)

IEMA Telecommunicator notifies appropriate State agencies of the ALERT.

IEMA notifies FEMA of the ALERT.

0840 IEMA Telecommunicator notifies the counties of the ALERT via NARS.

County telecommunicators complete and verify the NARS message.

County telecommunicators notify County officials and municipalities of the ALERT per SOP.

The counties may activate the EOCs, if appropriate.

Municipal telecommunicators complete and verify the NARS message.

Municipal telecommunicators notify officials of the ALERT per SOP.

Dresden Station SITE AREA EMERGENCY (SAE) Scenario Summary

0940 - 1110

LARGE BREAK LOCA INSIDE DRYWELL w/ FUEL FAILURE

The condensate/feed water system experiences a failure as FME in the main condenser results in a loss of condensate pumps. This results in a loss of high pressure feed. Additionally, a large break occurs resulting in a RPV level reduction and RCS input into the Drywell. A SCRAM occurs and all ECCS systems and isolations respond as designed with the exception of the HPCI which fails to pump. RPV level will drop to less than -143" and recover. After the LOCA, DW radiation will rise, eventually exceeding 670 R/hr, a Loss of the Fuel barrier (FC5), Loss of RCS – Drywell press > 2.0 due to RCS leakage (RC3) or DW Rad >100 R/hr with RCS leakage (RC5), which will result in a concurrent FS1.

Expected Response

Multiple annunciators will alert the crew that a SCRAM has occurred on Unit 2 and a break into the drywell is occurring. Procedural steps will be taken to restore RPV level and stabilize Drywell pressure. DW pressure control will be restricted as there is a loss of the DW sprays.

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

Expected Actions

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

Additional Information

An engineering report will be made available that states the currently installed charcoal adsorbers are not effective for both trains of the SGBT system. This information should make its way to the facility RPM, who will inform appropriate personnel that the DAPAR Process Reduction Factor (PRF) is reduced due to failed filters.

Approx. Time

Event/Anticipated Offsite Response

0940	A SITE AREA EMERGENCY is declared at Dresden Station.
0955	Exelon notifies the IEMA Telecommunicator of the SITE AREA EMERGENCY via NARS. IEMA Telecommunicator verifies the NARS message.

Approx. Time

Event/Anticipated Offsite Response

0955	REAC contacts the Dresden Station Shift Engineer. SIRC is activated if not previously activated. SIRC notifies the Governor's Office and requests that a representative report to the State EOC. (Simulated) State dispatches liaisons to the County EOCs, UAC, RAFT, JIC, TSC and EOF, if not previously dispatched.
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SIRC notifies FEMA of conditions. (Simulated)

IEMA notifies State agencies (Simulated):

- Illinois State Police
- IDOT/Division of Highways
- IDOT/Division of Aeronautics
- IDNR
- Illinois National Guard
- ICC
- American Red Cross
- IDPH
- IEPA
- IDOC
- IDHS
- IDOA
- Office of the State Fire Marshal
- others as appropriate

REAC contacts Federal agencies. (Simulated)

REAC provides an update to the SIRC and County EOC Liaisons.

REAC provides an update to the JIC.

1010 IEMA notifies the counties of the SITE AREA EMERGENCY via NARS.

County telecommunicators complete and verify the NARS message.

County telecommunicators notify County officials and municipalities of the SITE AREA EMERGENCY per SOP.

County EOCs are activated if not previously activated.

**Approx.
Time**

Event/Anticipated Offsite Response

1010 Counties implement public notification procedures, if appropriate. (Simulated)

Municipal telecommunicators complete and verify the NARS message.

Municipal telecommunicators notify officials per SOP.

Dosimetry is issued to emergency personnel, EOC staff and exposure records are completed.

Dresden Station GENERAL EMERGENCY (GE) Scenario Summary

1110-1245

DRYWELL PENETRATION FAILURE RELEASE IN PROGRESS

Reactor Building area radiation/temperatures will rise, exceeding max safe levels. The crew should identify that a containment break has occurred allowing the drywell atmosphere to leak into the Reactor Building. Control Room indications for the Reactor Building and decreasing containment pressure indicate a penetration failure causing a leak into secondary containment (CT 3/6). A release path exists from the RPV to the RB through the penetration failure to the ventilation systems to SBTG and out the U2/3 Main Chimney. Effluent readings will indicate a significant jump in release rates. DW radiation will continue to rise, peaking at ~1020 R/hr.

Expected Actions

The Operating Crew will continue to address RPV parameters and control the reactor. The Emergency Director in Command and Control should declare **FG-1** *“Loss of two fission product barriers AND Loss or Potential Loss of the third barrier.”* Appropriate notifications should be made. The EOF should identify that Maximum PARs are applicable, and notifications of such should be made. Note: The loss of RCS (RC2) may be included for the GE classification. The basis for RC2 states that dropping level below TAF is indicative of a LOCA. This was used as loss of the RCS barrier at the SAE. Also, RA3 may be considered for a concurrent EAL as RB area rads meet the classification for this. A concurrent EAL (RG1) should be declared when actual or projected Site Boundary dose > 1 Rem TEDE or > 5 Rem Thyroid.

Approx. Time

Event/Anticipated Offsite Response

1110	A GENERAL EMERGENCY is declared at Dresden Station.
1125	Exelon notifies the IEMA Telecommunicator of the GENERAL EMERGENCY via NARS. Protective actions are recommended.

**Approx.
Time**

Event/Anticipated Offsite Response

1125	<p>IEMA Telecommunicator verifies the NARS message.</p> <p>The SIRC and REAC evaluate the protective action recommendation. A recommendation is made to the Governor. The Governor recommends that protective actions be implemented.</p> <p>SIRC staff is advised of the situation.</p> <p>SIRC advises UAC, the County EOC liaisons and JIC staff of the situation.</p> <p>SIRC notifies FEMA of conditions. (Simulated)</p> <p>REAC provides an update to the SIRC and County EOC liaisons.</p> <p>REAC provides an update to the JIC.</p>
1140	<p>SIRC notifies the counties of the GENERAL EMERGENCY and the recommended protective actions via NARS.</p> <p>County telecommunicators complete and verify the NARS message.</p> <p>County telecommunicators notify County officials and municipalities per SOP.</p> <p>Counties implement public notification procedures and traffic and access control per SOPs, as applicable.</p> <p>Municipal telecommunicators complete and verify and the NARS message.</p> <p>Municipal telecommunicators notify EOC staff.</p>

EXERCISE TERMINATION

Exercise termination is scheduled for 1245, but at the discretion of the Lead Scenario Evaluator, Lead Scenario Controller, and State of Illinois with the concurrence of the Evaluator and Controller network, this time may be extended or advanced.

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