



Homeland  
Security

NOV 2 2006

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

Dear Mr. Caldwell:

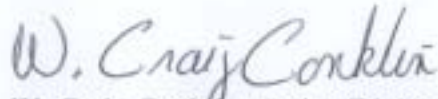
Enclosed is a copy of the Final Report for the August 8-9, 2006, plume and ingestion exposure pathway exercise of the offsite radiological emergency response plans site-specific to the Braidwood Station. The State of Illinois, and Grundy, Kankakee, and Will Counties along with the State of Indiana fully participated in this exercise. The utility owner/operator Exelon Nuclear, also participated in this exercise. The final exercise report was prepared by the U.S. Department of Homeland Security Radiological Emergency Preparedness Program (REPP) Chicago Field Office staff.

There were no Deficiencies identified during this exercise. There was one Area Requiring Corrective Action (ARCA) identified for Grundy County and one ARCA identified for the State of Indiana as a result of this exercise. One previous ARCA identified for the State of Illinois and one previous ARCA identified for the State of Indiana were resolved during this exercise. The final report contains the evaluation of the biennial exercise and a detailed discussion of these ARCAs. These issues can be found in Part IV of the final report.

Based on the results of the August 8-9, 2006, exercise, the offsite radiological emergency response plans and preparedness for the State of Illinois and affected local jurisdictions, and the State of Indiana site-specific to the Braidwood 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 and the State of Indiana site-specific to the Braidwood Station, granted on April 15, 1988, remains in effect.

If you should have any questions, please contact William King, Regional Assistance Committee Chair, REPP Chicago Field Office, at (312) 408-5575.

Sincerely,

A handwritten signature in dark ink, reading "W. Craig Conklin". The signature is fluid and cursive, with the first and last names being more prominent.

W. Craig Conklin, Acting Director  
Chemical and Nuclear Preparedness  
and Protection Division  
Office of the Infrastructure Protection  
Preparedness Directorate

Enclosure

cc: Mr. Anthony McMurtry, Chief  
Inspection and Communications Section  
U.S. Nuclear Regulatory Commission  
Mail Stop O-6H2  
Washington, DC 20555-0001

# Braidwood Station Exercise – August 8 and 9, 2006

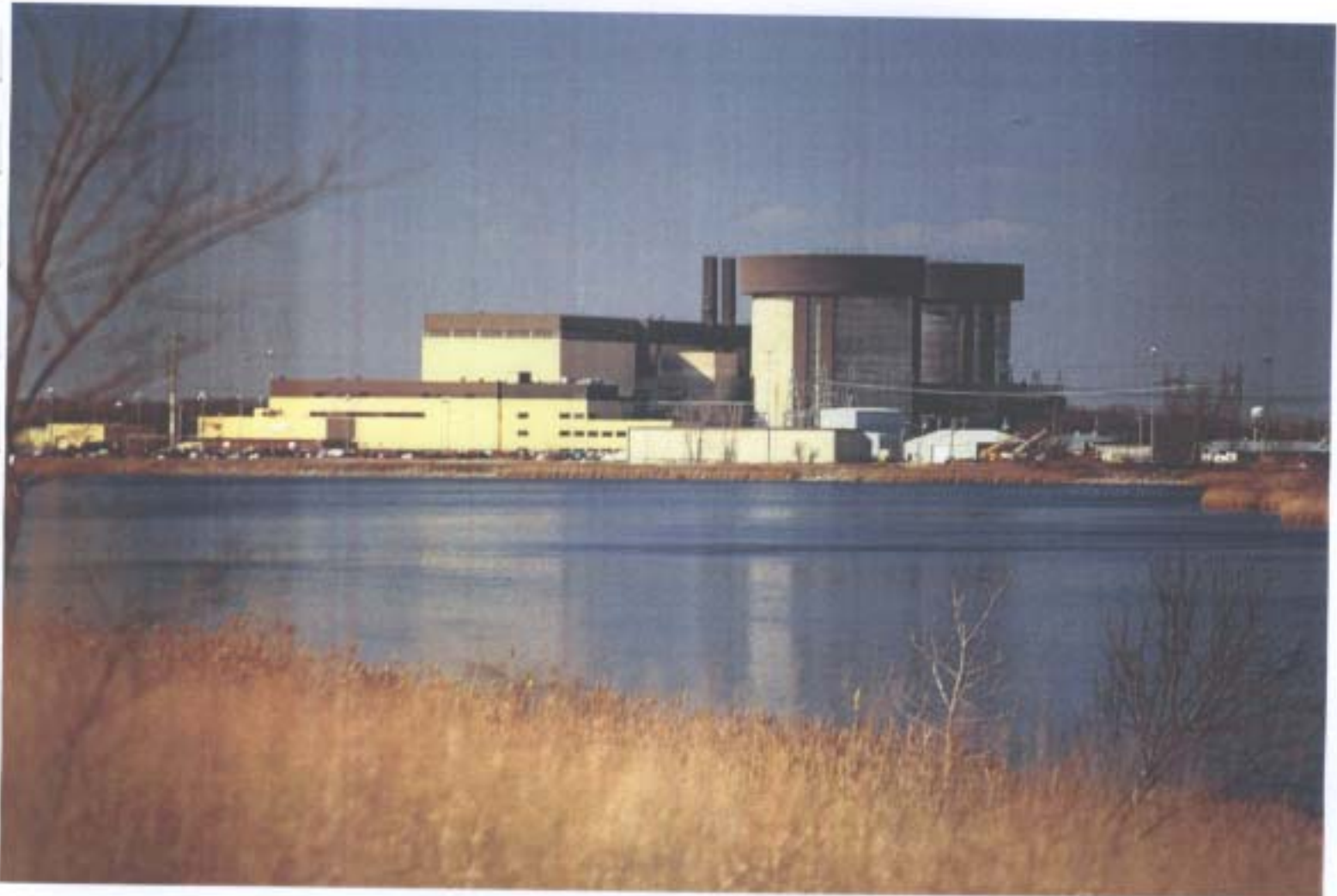
Final Report – Radiological Emergency Preparedness Program

*November 6, 2006*



Homeland  
Security

*Chicago Field Office*





# Homeland Security

## **Final Exercise Report**

### **Braidwood Station**

Licensee:	<b>Exelon Energy</b>
Exercise Dates:	<b>August 9 and 10, 2006</b>
Report Date:	<b>November 6, 2006</b>

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**U.S. DEPARTMENT OF HOMELAND SECURITY  
CHICAGO FIELD OFFICE**

**536 South Clark Street - 6<sup>th</sup> Floor  
Chicago, Illinois 60605 - 1521**

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## I. EXECUTIVE SUMMARY

On August 8 and 9, 2006, a Radiological Emergency Preparedness (REP) Full Participation Ingestion Exposure Pathway exercise was conducted for the 10-mile Emergency Planning Zone (EPZ) and the 50-mile Ingestion Planning Zone (IPZ) around the Braidwood Station by the U.S. Department of Homeland Security (DHS), Chicago Field Office (CFO). The purpose of the exercise was to assess the level of State and local preparedness in responding to a radiological emergency. This exercise was held in accordance with DHS' policies and guidance concerning the exercise of State and local radiological emergency response plans (RERPs) and procedures.

The most recent exercise at this site was conducted on November 17, 2004. The qualifying emergency preparedness exercise was conducted on November 6, 1985.

DHS wishes to acknowledge the efforts of the many individuals who participated in this exercise. In the State of Illinois the risk counties of Grundy, Kankakee, and Will participated along with the State Government. The State of Indiana also participated in the 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 was evident during this exercise.

This Final Report contains the evaluation of the biennial exercise, the ingestion exercise, and the evaluation of the following out-of-sequence activities: Illinois State Police Dosimetry Control Officers Briefing, Monitoring and Decontamination of Evacuees and Emergency Workers (EWs), Monitoring and Decontamination of EWs' Equipment, Public Registration, Congregate Care Center Interview, Medical Services (MS-1) Transportation and Hospital drills, and Protective Actions for Schools (EV-2) Interviews. The State and Local organizations except where noted in this report demonstrated knowledge of their emergency response plans and procedures and adequately implemented them

There were no Deficiencies identified during this exercise for any jurisdiction.

There were no Areas Requiring Corrective Action (ARCAs) identified during this exercise for the State of Illinois. There was one prior ARCA identified for the State of Illinois under Criterion 4.a.1 - Plume Phase Field Measurement and Analyses that was resolved during this exercise.

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



There was one ARCA identified for Grundy County under Criterion 5.b.1 - Emergency Information and Instructions for the Public and the Media, whereby several inaccuracies and some missing information occurred in Emergency Broadcast System Messages.

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

There was one ARCA identified for the State of Indiana under Criterion 6.a.1 - Monitoring and Decontamination of Evacuees and Emergency Workers, and Registration of Evacuees, whereby inadequate personnel monitoring techniques and contamination control methods were demonstrated during emergency worker monitoring.

There was one prior ARCA identified for the State of Indiana under Criterion 4.b.1 (old Objective 24) - Post Plume Phase Field Measurements and Sampling that was resolved during this exercise.

## II. INTRODUCTION

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

The FEMA Rule 44 CFR 350 establishes the policies and procedures for DHS'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's responsibilities in radiological emergency planning for fixed nuclear facilities include the following:

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

Representatives of these agencies serve on the DHS Radiological Preparedness Coordinating Committee (RPCC), which is chaired by DHS.

Formal submission of the RERPs for the Braidwood Station to DHS Chicago Field Office by the State of Illinois and involved local jurisdictions occurred on January 9, 1987. Formal approval of these RERPs was granted by FEMA on April 15, 1988, under 44 CFR 350.

A REP Full Participation Ingestion Pathway exercise was conducted on August 8 and August 9, 2006, by DHS to assess the capabilities of State and local offsite emergency preparedness organizations in implementing their RERPs and procedures to protect the public health and safety during a radiological emergency involving the Braidwood Station. The purpose of this exercise report is to present the exercise results and findings on the performance of the offsite response organizations (ORO) during a simulated radiological emergency.

The findings presented in this report are based on the evaluations of the Federal evaluation team. Final determinations were made by the DHS Chicago Field Office RPCC Chairman, and approved by DHS Headquarters.

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

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

Section III of this report, entitled "Exercise Overview", presents basic information and data relevant to the exercise. This section of the report contains a description of the plume pathway EPZ, a listing of all participating jurisdictions and functional entities, which were evaluated, and a tabular presentation of the time of actual occurrence of key exercise events and activities.

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

### **III. EXERCISE OVERVIEW**

Contained in this section are data and basic information relevant to the August 8, and August 9, 2006, REP Full Participation Ingestion Exposure Pathway exercise to test the offsite emergency response capabilities in the area surrounding the Braidwood Station. This section of the exercise report includes a description of the 10-mile Emergency Planning Zone, the 50-mile radius of the Ingestion Planning Zone, and a listing of all participating jurisdictions and functional entities which were evaluated, and a tabular presentation of the time of actual occurrence of key exercise events and activities.

#### **A. Plume Emergency and Ingestion Planning Zone Descriptions**

The Braidwood Station is located on a 4,162 acre site in Reed Township in southwest Will County, two miles south of Braidwood, Illinois, and three miles west of the Kankakee River. The station site is relatively flat with an elevation of 589 feet above sea level.

The population distribution in the 10-mile Emergency Planning Zone (EPZ) surrounding the Braidwood Station is relatively low. The year 2000 total population data is 36,493 persons living in the following protective action sub-areas 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, and 16 included within the 10-mile EPZ.

The primary land use around the Braidwood Station is agricultural, with cash grain crops of corn and soybeans. The closest industries are located in the communities of Wilmington, Gardner, and Coal City. There are seven recreational facilities in the emergency planning zone, which can accommodate between 1000 and 3000 people each, and one facility that can accommodate 10,000 people.

Major transportation facilities in the Braidwood Station EPZ are limited to Interstate 55, which passes one and one-half (1 ½) miles west of the Station itself, and five railroads. The railroads are: the Union Pacific Railroad Company (SPCSL), which is one (1) mile west of the Station; the Burlington Northern and Santa Fe Railway Company, which is four (4) miles northwest of the Station; the Norfolk Southern Railway Company, which is nine and one-half (9 ½) miles south of the Station; the Elgin, Joliet, and Eastern Railway Company, which is ten (10) miles northwest of the Station; and the CSX Transportation, Inc., which is fourteen (14) miles northwest of the Braidwood Station.

The 50-mile Braidwood Station Ingestion Planning Zone (IPZ) includes the States of Illinois and Indiana. In Illinois, the entire Counties of Grundy, Kankakee, Kendall, Livingston, and Will along with parts of Iroquois, Ford, McLean, Woodford, Marshall, Lee, DeKalb, Kane, LaSalle, DuPage, Cook, and Putnam Counties are affected. The affected population for this area is approximately 2,913,500 persons. In Indiana, parts of Jasper, Lake, and Newton Counties are

affected with an approximate population of 152,500 persons.

## **B. Exercise Participants**

The following agencies, organizations, and units of government participated in the Braidwood Station REP Full Participation Ingestion Pathway exercise on August 8 and 9, 2006:

### **STATE OF ILLINOIS**

- Illinois Commerce Commission
- Illinois Department of Agriculture
- Illinois Department of Central Management Services
- Illinois Department of Corrections
- Illinois Department of Human Services
- Illinois Department of Natural Resources
- Illinois Department of Public Health
- Illinois Department of Transportation
- Illinois Emergency Management Agency
- Illinois Environmental Protection Agency
- Illinois National Guard
- Illinois Office of Attorney General
- Illinois Radiological Assessment Team
- Illinois State Police
- Office of State Fire Marshal
- Secretary of State Police

### **RISK JURISDICTIONS**

#### **GRUNDY COUNTY**

- Grundy County Emergency Medical Services
- Grundy County Emergency Management Agency
- Grundy County Board
- Grundy County Coroner Office
- Grundy County Health Department
- Grundy County Highway Department
- Grundy County Human Resources
- Grundy County Public Information Officer
- Grundy County Sheriff's Department

#### **KANKAKEE COUNTY**

- Essex Village
- Kankakee County Board

Kankakee County Coroner Office  
Kankakee County Emergency Services and Disaster Agency  
Kankakee County Health Department  
Kankakee County Highway Department  
Kankakee County Public Information Officer  
Kankakee County Sheriff's Department  
Reddick Village  
Kankakee County Regional Superintendent of Schools  
Union Hill Village

## **WILL COUNTY**

Will County Executive  
Will County Coroner Office  
Will County Emergency Management Agency  
Will County Fire Department and Rescue Service  
Will County Forest Preserve  
Will County Health Department  
Will County Highway Department  
Will County Public Information Officer  
Will County Regional Superintendent of Schools  
Will County Sheriff's Department

## **RISK SCHOOL DISTRICTS**

Gardner Elementary School  
Herscher School District - Reddick Grade School  
Wilmington District

## **STATE OF INDIANA**

Department of Administration  
Governors Representative  
Indiana Department of Environmental Management  
Indiana Department of Homeland Security  
Indiana Department of Natural Resources  
Indiana Department of Transportation  
Indiana State Department of Health  
Indiana State Police

## **PRIVATE/VOLUNTEER ORGANIZATIONS**

American Red Cross  
Amateur Radio Emergency Service  
Exelon Nuclear  
Emergency Broadcast System Station -WKAN  
Emergency Broadcast System Stations -WJOL/WSSR/WCCQ/WRXQ



Federal Bureau of Investigation  
Joliet Junior College  
Morris Hospital  
Silver Cross Hospital  
Kurtz Ambulance

### **C. Exercise Timeline**

Table 1, on the following page, presents the times at which key events and activities occurred during the REP Full Participation Ingestion Exposure Pathway exercise conducted on August 8, 2006, for the Braidwood Station.

Table 1. Exercise Timeline

DATE AND SITE: August 8, 2006, Braidwood Station, Plume Exercise

Emergency Classification Level or Event	Time Utility Declared	Time That Notification Was Received or Action was Taken						
		State of Illinois	REAC	UAC	Grundy County	Kankakee County	Will County	JIC
Unusual Event	NA	NA	NA	NA	NA	NA	NA	NA
Alert	0805	0818	0835	0846	0835	0835	0838	NA
Site Area Emergency	0915	0927	0920	0936	0943	0939	0943	0935
General Emergency	1102	1116	1107	1126	1129	1127	1130	1122
Start of Release of Radioactive Material	1058	1116	1107	1107	1129	1127	1130	NA
Release Terminated	NA	NA	NA	NA	NA	NA	NA	NA
Facility Declared Operational		0900	0852	0910	0925	0954	0935	0930
Declaration of Local Emergency		NA	NA	NA	0912	NA	1054	NA
Declaration of State of Disaster Emergency		1050	NA	NA	NA	NA	NA	NA
Exercise Termination		1308	1315	1321	1315	1325	1326	1315
Early Precautionary Action Decision: Livestock Advisory: Place Livestock on Stored Feed and Water Out to 10-Miles		0950	0935	NA	NA	NA	NA	0953
Instructional Message Decision: Stay tuned to EAS/EBS Radio Station Broadcast for Further Information		NA	NA	NA	0912	1003	1044	NA
1 <sup>st</sup> Siren Activation:		NA	NA	NA	NA	1019	1050	NA
1 <sup>st</sup> EBS Message:		NA	NA	NA	0912	1022	1052	NA
1 <sup>st</sup> Protective Action Decision (Grundy County): Evacuate sub-areas 10, 11, and 14		NA	NA	NA	1100	NA	NA	NA
1 <sup>st</sup> Siren Activation (Grundy County):		NA	NA	NA	1104	NA	NA	NA
1 <sup>st</sup> EBS Message: (Grundy County)		NA	NA	NA	1104	NA	NA	NA
1 <sup>st</sup> Protective Action Recommendation – State: Evacuate sub-areas 1, 2, 3, 6, 7, 10, 11, 14 and 15		1122	1120	NA	NA	NA	NA	NA
1 <sup>st</sup> Protective Action Decision (Kankakee and Will): Evacuate sub-areas 1, 2, 3, and 6		NA	NA	NA	NA	1136	1134	NA
2nd Siren Activation (Kankakee and Will):		NA	NA	NA	NA	1140	1140	NA
2nd EBS Message (Kankakee and Will):		NA	NA	NA	NA	1142	1142	NA
2 <sup>nd</sup> Protective Action Decision (Grundy County): Evacuate sub-areas 7, 10, 11, 14 and 15: (added sub-areas 7 and 15)		NA	NA	NA	1129	NA	NA	NA
2nd Siren Activation (Grundy County):		NA	NA	NA	1145	NA	NA	NA
2nd EBS Message (Grundy County):		NA	NA	NA	1147	NA	NA	NA
2 <sup>nd</sup> Protective Action Recommendation– State: Evacuate sub-areas 1, 2, 3, 6, 7, 9, 10, 14 and 15: (Added sub-area 9)		1151	1143	NA	NA	NA	NA	NA
2 <sup>nd</sup> Protective Action Decision (Kankakee County): Evacuate sub-areas 1, 2, 3, 6 and 9 (added sub-area 9)		NA	NA	NA	NA	1157	NA	NA
3 <sup>rd</sup> Siren Activation (Kankakee):		NA	NA	NA	NA	1205	NA	NA
3 <sup>rd</sup> EBS Message (Kankakee):		NA	NA	NA	NA	1207	NA	NA
KI Administration Decision: Emergency Workers and Immobile Population		1122	1120	1126	1127	1127	1134	1121

#### IV. 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 August 8 and 9, 2006, REP Full Participation Ingestion Exposure Pathway exercise to test the off-site emergency response capabilities of State and local governments in the 10-mile EPZ and 50-mile ingestion planning zone surrounding the Braidwood Station.

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

##### A. Summary Results of Exercise Evaluation

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

M	–	Met (No Deficiency or ARCA assessed and no unresolved ARCAs from prior exercises)
D	–	Deficiency assessed
A	–	ARCA(s) assessed or unresolved ARCA(s) from prior exercise(s)
N	–	Not Demonstrated (Reason explained in Section IV.B.)
Blank	–	Not scheduled for demonstration

## Table 2. Summary Results of Exercise Evaluation

DATE AND SITE: August 8 and 9, 2006, Braidwood Station (Sheet 1 of 3)

JURISDICTIONS/ FUNCTIONAL ENTITY	1. a. 1	1. b. 1	1. c. 1	1. d. 1	1. e. 1	2. a. 1	2. b. 1	2. b. 2	2. c. 1	2. d. 1	2. e. 1	3. a. 1	3. b. 1	3. c. 1	3. c. 2	3. d. 1	3. d. 2	3. e. 1	3. e. 2	3. f. 1	4. a. 1	4. a. 2	4. a. 3	4. b. 1	4. c. 1	5. a. 1	5. a. 2	5. a. 3	5. b. 1	6. a. 1	6. b. 1	6. c. 1	6. d. 1
<b>STATE OF ILLINOIS</b>																																	
Initial Warning Point	M			M																													
State Emergency Operations Center (SEOC) State of Illinois Response Center (SIRC)	M		M	M	M	M	M	M	M	M	M							M	M	M							M			M			
Public Inquiry Phone Bank																														M			
Radiological Emergency Assessment Center (REAC)	M		M	M	M	M	M	M	M	M	M							M	M	M													
Unified Area Command (UAC)	M		M	M	M			M				M	M			M	M		M	M													
Illinois State Police (ISP) - Traffic and Access Control Point at the UAC				M	M							M	M			M																	
Radiological Assessment Team	M		M	M	M							M	M									M	M										
Illinois Emergency Management (IEMA) Mobile Laboratory				M	M																				M								
Field Teams Blue and Red	M			M	M							M	M									M		M									
Sampling Teams 1 and 2				M	M																			M									
Emergency Operations Facility	M		M	M																										M			
Joint Information Center (JIC)	M		M	M	M																												
State Liaison - Grundy County			M																														
IEMA Radiological Advisor - Grundy County	M		M		M			M																		M				M			
State Liaison - Kankakee County			M																														
IEMA Radiological Advisor - Kankakee County	M		M		M			M																		M				M			
State Liaison - Will County			M																														
IEMA Radiological Advisor - Will County	M		M		M			M																			M			M			
Dosimetry Control Officer Briefing - ISP District 5												M																					
Monitoring and Decontamination of Evacuees and Emergency Workers (EWs) - Joliet Junior College					M							M																			M		
Monitoring and Decontamination of EWs' Equipment - Joliet Junior College					M							M																			M		
Public Registration - Joliet Junior College					M							M																			M		
Congregate Care Center Interview - Joliet Junior College																																M	
Medical Services (MS-1) Transportation - Kurtz Ambulance																																	M
MS-1 Hospital - Silver Cross Hospital					M							M																					M

LEGEND: M = Met (No Deficiency or ARCA(s) assessed)  
D = Deficiency assessed

A = ARCA(s) assessed (Not affecting health and safety of public)  
U = Unresolved ARCA(s) from prior exercise(s)

Blank = Not scheduled for demonstration  
N = Not demonstrated as scheduled (Reason explained in Section IV.B)

## Table 2. Summary Results of Exercise Evaluation

DATE AND SITE: August 8 and 9, 2006, Braidwood Station (Sheet 2 of 3)

JURISDICTIONS/ FUNCTIONAL ENTITY	1. a. 1	1. b. 1	1. c. 1	1. d. 1	1. e. 1	2. a. 1	2. b. 1	2. b. 2	2. c. 1	2. d. 1	2. e. 1	3. a. 1	3. b. 1	3. c. 1	3. c. 2	3. d. 1	3. d. 2	3. e. 1	3. e. 2	3. f. 1	4. a. 1	4. a. 2	4. a. 3	4. b. 1	4. c. 1	5. a. 1	5. a. 2	5. a. 3	5. b. 1	6. a. 1	6. b. 1	6. c. 1	6. d. 1
<b>GRUNDY COUNTY</b>																																	
Initial Warning Point	M			M																													
Emergency Operations Center	M		M	M	M			M	M			M	M	M	M		M										M			A			
Protective Actions for Schools (EV-2) Interview - Gardner Elementary School				M	M							M	M		M																		
<b>KANKAKEE COUNTY</b>																																	
Initial Warning Point	M			M																													
Emergency Operations Center	M	M	M	M	M			M	M		M	M	M	M	M	M	M			M							M			M			
Traffic and Access Control Point				M	M							M	M			M																	
Emergency Broadcast System (EBS) Station - WKAN				M																							M			M			
EV-2 Interview - Reddick Grade School				M	M							M	M		M																		
<b>WILL COUNTY</b>																																	
Initial Warning Point	M			M																													
Emergency Operations Center	M		M	M	M			M	M		M	M	M	M	M	M	M			M							M			M			
Traffic and Access Control Point				M	M							M	M			M																	
EBS Stations - WJOL WSSR WCCQ WRXQ				M																							M			M			
EV-2 Interview - Wilmington School District				M	M							M	M		M																		

LEGEND: M = Met (No Deficiency or ARCA(s) assessed)  
D = Deficiency assessed

A = ARCA(s) assessed (Not affecting health and safety of public)  
U = Unresolved ARCA(s) from prior exercise(s)

Blank = Not scheduled for demonstration  
N = Not demonstrated as scheduled (Reason explained in Section IV.B)



**Table 2. Summary Results of Exercise Evaluation**

**DATE AND SITE:** August 8 and 9, 2006, Braidwood Station (Sheet 3 of 3)

JURISDICTIONS/ FUNCTIONAL ENTITY	1. a. 1	1. b. 1	1. c. 1	1. d. 1	1. e. 1	2. a. 1	2. b. 1	2. b. 2	2. c. 1	2. d. 1	2. e. 1	3. a. 1	3. b. 1	3. c. 1	3. c. 2	3. d. 1	3. d. 2	3. e. 1	3. e. 2	3. f. 1	4. a. 1	4. a. 2	4. a. 3	4. b. 1	4. c. 1	5. a. 1	5. a. 2	5. a. 3	5. b. 1	6. a. 1	6. b. 1	6. c. 1	6. d. 1
<b>STATE OF INDIANA</b>																																	
Indiana Department of Homeland Security 24-Hour Dispatcher	M				M																												
Indiana State Emergency Operations Center	M	M	M	M	M					M								M	M										M				
Indiana State Department of Health Radiochemistry Laboratory					M	M						M													M								
Forward Operating Center	M	M	M	M	M	M				M		M						M												A			
Sampling Teams 1 and 2	M				M	M						M													M								

LEGEND: M = Met (No Deficiency or ARCA(s) assessed)  
D = Deficiency assessed

A = ARCA(s) assessed (Not affecting health and safety of public)  
U = Unresolved ARCA(s) from prior exercise(s)

Blank = Not scheduled for demonstration  
N = Not demonstrated as scheduled (Reason explained in Section IV.B)

## B. Status of Jurisdictions Evaluated

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

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

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

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

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

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

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

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

## **1. STATE OF ILLINOIS**

### **1.1 Initial Warning Point**

- a. MET: Criteria 1.a.1 and 1.d.1**
- b. DEFICIENCY: NONE**
- c. AREAS REQUIRING CORRECTIVE ACTION: NONE**
- d. NOT DEMONSTRATED: NONE**
- e. PRIOR ISSUES – RESOLVED: NONE**
- f. PRIOR ISSUES – UNRESOLVED: NONE**

### **1.2 State Emergency Operations Center (SEOC)/ State of Illinois Response Center (SIRC)**

- a. MET: Criteria 1.a.1; 1.c.1; 1.d.1; 1.e.1; 2.a.1; 2.b.1; 2.b.2; 2.c.1; 2.d.1; 2.e.1; 3.e.1; 3.e.2; 3.f.1; 5.a.1; and 5.b.1**
- b. DEFICIENCY: NONE**
- c. AREAS REQUIRING CORRECTIVE ACTION: NONE**
- d. NOT DEMONSTRATED: NONE**
- e. PRIOR ISSUE – UNRESOLVED: NONE**
- f. PRIOR ISSUES – UNRESOLVED: NONE**

### **1.3 Public Inquiry Phone Bank**

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

#### **1.4 Radiological Emergency Assessment Center (REAC)**

- a. **MET:** Criteria 1.a.1; 1.c.1; 1.d.1; 1.e.1; 2.a.1; 2.b.1; 2.b.2; 2.c.1; 2.d.1; 2.e.1; 3.e.1; 3.e.2; and 3.f.1
- b. **DEFICIENCY:** NONE
- c. **AREAS REQUIRING CORRECTIVE ACTION:** NONE
- d. **NOT DEMONSTRATED:** NONE
- e. **PRIOR ISSUES – RESOLVED:** NONE
- f. **PRIOR ISSUES – UNRESOLVED:** NONE

#### **1.5 Unified Area Command (UAC)**

- a. **MET:** Criteria 1.a.1; 1.c.1; 1.d.1; 1.e.1; 2.b.2; 3.a.1; 3.b.1; 3.d.1; 3.d.2; 3.e.2; and 3.f.1
- b. **DEFICIENCY:** NONE
- c. **AREAS REQUIRING CORRECTIVE ACTION:** NONE
- d. **NOT DEMONSTRATED:** NONE
- e. **PRIOR ISSUES – RESOLVED:** NONE
- f. **PRIOR ISSUES – UNRESOLVED:** NONE

#### **1.6 Illinois State Police (ISP) - Traffic and Access Control Point at the UAC**

- a. **MET:** Criteria 1.d.1; 1.e.1; 3.a.1; 3.b.1; and 3.d.1
- b. **DEFICIENCY:** NONE
- c. **AREAS REQUIRING CORRECTIVE ACTION:** NONE
- d. **NOT DEMONSTRATED:** NONE
- e. **PRIOR ISSUES – RESOLVED:** NONE
- f. **PRIOR ISSUES – UNRESOLVED:** NONE

## **1.7 Radiological Assessment Team**

- a. **MET:** Criteria 1.a.1; 1.c.1; 1.d.1; 1.e.1; 3.a.1; 3.b.1; 4.a.2; and 4.a.3
- b. **DEFICIENCY:** NONE
- c. **AREAS REQUIRING CORRECTIVE ACTION:** NONE
- d. **NOT DEMONSTRATED:** NONE
- e. **PRIOR ISSUES – RESOLVED:** NONE
- f. **PRIOR ISSUES – UNRESOLVED:** NONE

## **1.8 Illinois Emergency Management Agency (IEMA) Mobile Laboratory**

- a. **MET:** Criteria 1.d.1; 1.e.1; and 4.c.1
- b. **DEFICIENCY:** NONE
- c. **AREAS REQUIRING CORRECTIVE ACTION:** NONE
- d. **NOT DEMONSTRATED:** NONE
- e. **PRIOR ISSUES – RESOLVED:** NONE
- f. **PRIOR ISSUES – UNRESOLVED:** NONE

## **1.9 Field Teams Blue and Red**

- a. **MET:** Criteria 1.a.1; 1.d.1; 1.e.1; 3.a.1; 3.b.1; 4.a.1; and 4.a.3
- b. **DEFICIENCY:** NONE
- c. **AREAS REQUIRING CORRECTIVE ACTION:** NONE
- d. **NOT DEMONSTRATED:** NONE
- e. **PRIOR ISSUES – RESOLVED:** Criterion 4.a.1

**Issue No.:** 13-05-4.a.1-A-01

**Condition:** The Red and Green State Field Teams were deployed to the field without either operable or currently calibrated air samplers.

**Reason ARCA Unresolved:** While the Field Team survey instruments were



calibrated in accordance with the plan, two of the five Field Team instruments had other issues during the May 17, 2006, Quad Cities exercise. One Field Team instrument (a Bicron Model RSO-50E ion chamber) was missing a source-check acceptance criteria sticker. Another Field Team instrument (a Ludlum Model 2241-3) had an incorrect source check acceptance criteria sticker: the sticker listed the range as approximately 2,200 counts per minute (cpm) to 3,600 cpm when using the Model 44-9 probe. However, based on the observed count rate relative to the source and the range given on the sticker of another Ludlum survey instrument, the range should have been approximately 22,000 cpm to 36,000 cpm, i.e., one order of magnitude greater than listed on the sticker. In addition, an IEMA radiological equipment kit labeled "Hospital 1" that was used during the Medical Services – Transportation Drill for the Trinity Medical Ambulance Service, did not contain a radioactive source or instructions for performing an operational check on survey instruments.

These issues reflect a continuing problem regarding the proper maintenance of survey instrumentation and field kits in accordance with the plan and procedures.

**Corrective Action Demonstrated:** During the Braidwood exercise, the verification that all field team instruments and air samplers used by Field Team Blue were calibrated and operable, was documented on calibration stickers and demonstrated by operation checks. All instrumentation used by Field Team Red was operable and labeled as having been calibrated within the acceptable time frame. A cesium-137 check source was available and each instrument was operationally checked. Each instrument had a source-check acceptance criteria sticker that accurately reflected the expected range of readings. An operability check, using a check source, was properly performed on the survey instruments used by the IEMA representative in the ambulance portion of the MS-1 demonstration. All instruments used by Field Team and IEMA representatives were properly calibrated within the required annual period.

f. **PRIOR ISSUES – UNRESOLVED: NONE**

**1.10 Sampling Teams 1 and 2**

- a. **MET: Criteria 1.d.1; 1.e.1; and 4.b.1**
- b. **DEFICIENCY: NONE**
- c. **AREAS REQUIRING CORRECTIVE ACTION: NONE**
- d. **NOT DEMONSTRATED: NONE**
- e. **PRIOR ISSUES – RESOLVED: NONE**
- f. **PRIOR ISSUES – UNRESOLVED: NONE**

### **1.11 Emergency Operations Facility**

- a. **MET:** Criteria 1.a.1; 1.c.1; and 1.d.1
- b. **DEFICIENCY:** NONE
- c. **AREAS REQUIRING CORRECTIVE ACTION:** NONE
- d. **NOT DEMONSTRATED:** NONE
- e. **PRIOR ISSUES – RESOLVED:** NONE
- f. **PRIOR ISSUES – UNRESOLVED:** NONE

### **1.12 Joint Information Center (JIC)**

- a. **MET:** Criteria 1.a.1; 1.c.1; 1.d.1; 1.e.1; and 5.b.1
- b. **DEFICIENCY:** NONE
- c. **AREAS REQUIRING CORRECTIVE ACTION:** NONE
- d. **NOT DEMONSTRATED:** NONE
- e. **PRIOR ISSUES – RESOLVED:** NONE
- f. **PRIOR ISSUES – UNRESOLVED:** NONE

### **1.13 State Liaison - Grundy County**

- a. **MET:** Criterion 1.c.1
- b. **DEFICIENCY:** NONE
- c. **AREAS REQUIRING CORRECTIVE ACTION:** NONE
- d. **NOT DEMONSTRATED:** NONE
- e. **PRIOR ISSUES – RESOLVED:** NONE
- f. **PRIOR ISSUES – UNRESOLVED:** NONE

### **1.14 IEMA Radiological Advisor - Grundy County**

- a. **MET:** Criteria 1.a.1; 1.c.1; 1.e.1; 2.b.2; 5.a.1; and 5.b.1

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

#### **1.15 State Liaison - Kankakee County**

- a. **MET: Criterion 1.c.1**
- b. **DEFICIENCY: NONE**
- c. **AREAS REQUIRING CORRECTIVE ACTION: NONE**
- d. **NOT DEMONSTRATED: NONE**
- e. **PRIOR ISSUES – RESOLVED: NONE**
- f. **PRIOR ISSUES – UNRESOLVED: NONE**

#### **1.16 IEMA Radiological Advisor - Kankakee County**

- a. **MET: Criteria 1.a.1; 1.c.1; 1.e.1; 2.b.2; 5.a.1; and 5.b.1**
- b. **DEFICIENCY: NONE**
- c. **AREAS REQUIRING CORRECTIVE ACTION: NONE**
- d. **NOT DEMONSTRATED: NONE**
- e. **PRIOR ISSUES – RESOLVED: NONE**
- f. **PRIOR ISSUES – UNRESOLVED: NONE**

#### **1.17 State Liaison - Will County**

- a. **MET: Criterion 1.c.1**
- b. **DEFICIENCY: NONE**
- c. **AREAS REQUIRING CORRECTIVE ACTION: NONE**

- d. **NOT DEMONSTRATED: NONE**
- e. **PRIOR ISSUES – RESOLVED: NONE**
- f. **PRIOR ISSUES – UNRESOLVED: NONE**

#### **1.18 IEMA Radiological Advisor - Will County**

- a. **MET: Criteria 1.a.1; 1.c.1; 1.e.1; 2.b.2; 5.a.1; and 5.b.1**
- b. **DEFICIENCY: NONE**
- c. **AREAS REQUIRING CORRECTIVE ACTION: NONE**
- d. **NOT DEMONSTRATED: NONE**
- e. **PRIOR ISSUES – RESOLVED: NONE**
- f. **PRIOR ISSUES – UNRESOLVED: NONE**

#### **1.19 Dosimetry Control Officer Briefing - ISP District 5**

- a. **MET: Criterion 3.a.1**
- b. **DEFICIENCY: NONE**
- c. **AREAS REQUIRING CORRECTIVE ACTION: NONE**
- d. **NOT DEMONSTRATED: NONE**
- e. **PRIOR ISSUES – RESOLVED: NONE**
- f. **PRIOR ISSUES – UNRESOLVED: NONE**

#### **1.20 Monitoring and Decontamination of Evacuees and Emergency Workers (EWs) - Joliet Junior College**

- a. **MET: Criteria 1.c.1; 3.a.1; and 6.a.1**
- b. **DEFICIENCY: NONE**
- c. **AREAS REQUIRING CORRECTIVE ACTION: NONE**
- d. **NOT DEMONSTRATED: NONE**

- e. **PRIOR ISSUES - RESOLVED: NONE**
- f. **PRIOR ISSUES – UNRESOLVED: NONE**

**1.21 Monitoring and Decontamination of EWs' Equipment - Joliet Junior College**

- a. **MET: Criteria 1.e.1; 3.a.1; and 6.b.1**
- b. **DEFICIENCY: NONE**
- c. **AREAS REQUIRING CORRECTIVE ACTION: NONE**
- d. **NOT DEMONSTRATED: NONE**
- e. **PRIOR ISSUES - RESOLVED: NONE**
- f. **PRIOR ISSUES – UNRESOLVED: NONE**

**1.22 Public Registration - Joliet Junior College**

- a. **MET: Criteria 1.e.1; 3.a.1; and 6.a.1**
- b. **DEFICIENCY: NONE**
- c. **AREAS REQUIRING CORRECTIVE ACTION: NONE**
- d. **NOT DEMONSTRATED: NONE**
- e. **PRIOR ISSUES - RESOLVED: NONE**
- f. **PRIOR ISSUES – UNRESOLVED: NONE**

**1.23 Congregate Care Center Interview - Joliet Junior College**

- a. **MET: Criterion 6.c.1**
- b. **DEFICIENCY: NONE**
- c. **AREAS REQUIRING CORRECTIVE ACTION: NONE**
- d. **NOT DEMONSTRATED: NONE**
- e. **PRIOR ISSUES – RESOLVED: NONE**
- f. **PRIOR ISSUES – UNRESOLVED: NONE**

#### **1.24 Medical Services (MS-1) Transportation - Kurtz Ambulance**

- a. **MET:** Criterion 6.d.1
- b. **DEFICIENCY:** NONE
- c. **AREAS REQUIRING CORRECTIVE ACTION:** NONE
- d. **NOT DEMONSTRATED:** NONE
- e. **PRIOR ISSUES – RESOLVED:** NONE
- f. **PRIOR ISSUES – UNRESOLVED:** NONE

#### **1.25 MS-1 Hospital - Silver Cross Hospital**

- a. **MET:** Criteria 1.e.1; 3.a.1; and 6.d.1
- b. **DEFICIENCY:** NONE
- c. **AREAS REQUIRING CORRECTIVE ACTION:** NONE
- d. **NOT DEMONSTRATED:** NONE
- e. **PRIOR ISSUES – RESOLVED:** NONE
- f. **PRIOR ISSUES – UNRESOLVED:** NONE



## **2. RISK COUNTIES**

### **2.1 GRUNDY COUNTY**

#### **2.1.1 Initial Warning Point**

- a. **MET:** Criteria 1.a.1 and 1.d.1
- b. **DEFICIENCY:** NONE
- c. **AREAS REQUIRING CORRECTIVE ACTION:** NONE
- d. **NOT DEMONSTRATED:** NONE
- e. **PRIOR ISSUES – RESOLVED:** NONE
- f. **PRIOR ISSUES – UNRESOLVED:** NONE

#### **2.1.2 Emergency Operations Center**

- a. **MET:** Criteria 1.a.1; 1.c.1; 1.d.1; 1.e.1; 2.b.2; 2.c.1; 3.a.1; 3.b.1; 3.c.1; 3.c.2; 3.d.2; and 5.a.1
- b. **DEFICIENCY:** NONE
- c. **AREAS REQUIRING CORRECTIVE ACTION:** Criterion 5.b.1

**Issue Number:** 06-06-5.b.1-A-01

**Condition:** There were several inaccuracies and some missing information in EBS Messages 2 and 3 generated by Grundy County officials. In addition, neither Messages 2 nor 3 advised the public to stay tuned to the radio station for additional information.

**Possible Cause:** The inaccurate statements in EBS Messages 2 and 3 are part of the text in the pre-scripted messages found in the Grundy County plan. During the process of customizing the pre-scripted messages to reflect the actual emergency situation and the intended emergency instructions, the Grundy County officials inadvertently forgot to delete the inappropriate portions of the pre-scripted messages. Similarly, the pre-scripted messages in the plan for evacuation do not include the statement advising the public to stay tuned to the radio station for additional information, and this was not added to the actual message by the officials.

**Reference:** NUREG-0654, E.5, E.7, G.3.a, G.4.c

**Effect:** The inaccurate statements would have confused and misled the public, potentially resulting in delays in taking protective actions, and compromised the safety of those not understanding the EBS messages.

**Recommendation:** Provide additional training to Grundy County personnel involved in preparing, reviewing, and issuing EBS messages for the public. Emphasize the need to carefully review the available pre-scripted messages and delete statements, which are not appropriate to the specific situation. Also, review the existing pre-scripted messages in the plan to ensure that they contain, as a minimum, the elements required by current DHS guidance.

**Schedule of Corrective Actions:** The Grundy County pre-scripted messages have been reviewed and revised to contain the statement to stay tuned to the radio for further information. Grundy County EOC staff has reviewed the process for developing messages and is aware of the need to amend the pre-scripted message to fit the situation at hand. This ARCA will be corrected during the November 15 LaSalle exercise

- d. **NOT DEMONSTRATED: NONE**
- e. **PRIOR ISSUES – RESOLVED: NONE**
- f. **PRIOR ISSUES – UNRESOLVED: NONE**

### **2.1.3 Protective Actions for Schools (EV-2) Interview - Gardner Elementary School**

- a. **MET:** Criteria 1.d.1; 1.e.1; 3.a.1; 3.b.1; and 3.c.2
- b. **DEFICIENCY: NONE**
- c. **AREAS REQUIRING CORRECTIVE ACTION: NONE**
- d. **NOT DEMONSTRATED: NONE**
- e. **PRIOR ISSUES – RESOLVED: NONE**
- f. **PRIOR ISSUES – UNRESOLVED: NONE**

## **2.2 KANKAKEE COUNTY**

### **2.2.1 Initial Warning Point**

- a. **MET:** Criteria 1.a.1 and 1.d.1
- b. **DEFICIENCY:** NONE
- c. **AREAS REQUIRING CORRECTIVE ACTION:** NONE
- d. **NOT DEMONSTRATED:** NONE
- e. **PRIOR ISSUES – RESOLVED:** NONE
- f. **PRIOR ISSUES – UNRESOLVED:** NONE

### **2.2.2 Emergency Operations Center**

- a. **MET:** Criteria 1.a.1; 1.b.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; and 5.b.1
- b. **DEFICIENCY:** NONE
- c. **AREAS REQUIRING CORRECTIVE ACTION:** NONE
- d. **NOT DEMONSTRATED:** NONE
- e. **PRIOR ISSUES – RESOLVED:** NONE
- f. **PRIOR ISSUES – UNRESOLVED:** NONE

### **2.2.3 Traffic and Access Control Point**

- a. **MET:** Criteria 1.d.1; 1.e.1; 3.a.1; 3.b.1; and 3.d.1
- b. **DEFICIENCY:** NONE
- c. **AREAS REQUIRING CORRECTIVE ACTION:** NONE
- d. **NOT DEMONSTRATED:** NONE
- e. **PRIOR ISSUES – RESOLVED:** NONE
- f. **PRIOR ISSUES – UNRESOLVED:** NONE

#### **2.2.4 Emergency Broadcast System (EBS) Station - WKAN**

- a. **MET:** Criteria 1.d.1; 5.a.1; and 5.b.1
- b. **DEFICIENCY:** NONE
- c. **AREAS REQUIRING CORRECTIVE ACTION:** NONE
- d. **NOT DEMONSTRATED:** NONE
- e. **PRIOR ISSUES – RESOLVED:** NONE
- f. **PRIOR ISSUES – UNRESOLVED:** NONE

#### **2.2.5 EV-2 Interview - Reddick Grade School**

- a. **MET:** Criteria 1.d.1; 1.e.1; 3.a.1; 3.b.1; and 3.c.2
- b. **DEFICIENCY:** NONE
- c. **AREAS REQUIRING CORRECTIVE ACTION:** NONE
- d. **NOT DEMONSTRATED:** NONE
- e. **PRIOR ISSUES – RESOLVED:** NONE
- f. **PRIOR ISSUES – UNRESOLVED:** NONE

## **2.3 WILL COUNTY**

### **2.3.1 Initial Warning Point**

- a. **MET:** Criteria 1.a.1 and 1.d.1
- b. **DEFICIENCY:** NONE
- c. **AREAS REQUIRING CORRECTIVE ACTION:** NONE
- d. **NOT DEMONSTRATED:** NONE
- e. **PRIOR ISSUES – RESOLVED:** NONE
- f. **PRIOR ISSUES – UNRESOLVED:** NONE

### **2.3.2 Emergency Operations Center**

- a. **MET:** Criteria 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; and 5.b.1
- b. **DEFICIENCY:** NONE
- c. **AREAS REQUIRING CORRECTIVE ACTION:** NONE
- d. **NOT DEMONSTRATED:** NONE
- e. **PRIOR ISSUES – RESOLVED:** NONE
- f. **PRIOR ISSUES – UNRESOLVED:** NONE

### **2.3.3 Traffic and Access Control Point**

- a. **MET:** Criteria 1.d.1; 1.e.1; 3.a.1; 3.b.1; and 3.d.1
- b. **DEFICIENCY:** NONE
- c. **AREAS REQUIRING CORRECTIVE ACTION:** NONE
- d. **NOT DEMONSTRATED:** NONE
- e. **PRIOR ISSUES – RESOLVED:** NONE
- f. **PRIOR ISSUES – UNRESOLVED:** NONE

#### **2.3.4 EBS Stations - WJOL/WSSR/WCCQ/WRXQ**

- a. **MET:** Criteria 1.d.1; 5.a.1; and 5.b.1
- b. **DEFICIENCY:** NONE
- c. **AREAS REQUIRING CORRECTIVE ACTION:** NONE
- d. **NOT DEMONSTRATED:** NONE
- e. **PRIOR ISSUES – RESOLVED:** NONE
- f. **PRIOR ISSUES – UNRESOLVED:** NONE

#### **2.3.5 EV-2 Interview - Wilmington School District**

- a. **MET:** Criteria 1.d.1; 1.e.1; 3.a.1; 3.b.1; and 3.c.2
- b. **DEFICIENCY:** NONE
- c. **AREAS REQUIRING CORRECTIVE ACTION:** NONE
- d. **NOT DEMONSTRATED:** NONE
- e. **PRIOR ISSUES – RESOLVED:** NONE
- f. **PRIOR ISSUES – UNRESOLVED:** NONE

### **3. STATE OF INDIANA**

#### **3.1 Indiana Department of Homeland Security 24-Hour Dispatcher**

- a. **MET:** Criteria 1.a.1 and 1.d.1
- b. **DEFICIENCY:** NONE
- c. **AREAS REQUIRING CORRECTIVE ACTION:** NONE
- d. **NOT DEMONSTRATED:** NONE
- e. **PRIOR ISSUES – RESOLVED:** NONE
- f. **PRIOR ISSUES – UNRESOLVED:** NONE

#### **3.2 Indiana State Emergency Operations Center**

- a. **MET:** Criteria 1.a.1; 1.b.1; 1.c.1; 1.d.1; 1.e.1; 2.d.1; 3.e.1; 3.e.2; and 5.b.1
- b. **DEFICIENCY:** NONE
- c. **AREAS REQUIRING CORRECTIVE ACTION:** NONE
- d. **NOT DEMONSTRATED:** NONE
- e. **PRIOR ISSUE – UNRESOLVED:** NONE
- f. **PRIOR ISSUES – UNRESOLVED:** NONE

#### **3.3 Indiana State Department of Health Radiochemistry Laboratory**

- a. **MET:** Criteria 1.d.1; 1.e.1; 3.a.1; and 4.c.1
- b. **DEFICIENCY:** NONE
- c. **AREAS REQUIRING CORRECTIVE ACTION:** NONE
- d. **NOT DEMONSTRATED:** NONE
- e. **PRIOR ISSUES – RESOLVED:** NONE
- f. **PRIOR ISSUES – UNRESOLVED:** NONE

### 3.4 Forward Operating Center

- a. **MET:** Criteria 1.a.1; 1.b.1; 1.c.1; 1.d.1; 1.e.1; 2.a.1; 2.d.1; 3.a.1; and 3.e.1
- b. **DEFICIENCY:** NONE
- c. **AREAS REQUIRING CORRECTIVE ACTION:** Criterion 6.a.1

**Issue No.:** 06-06-6.a.1-A-02

**Condition:** Inadequate personnel monitoring techniques and contamination control methods were demonstrated during EW monitoring. Gloves were not worn by the monitor, the pancake probe was not covered in plastic, and the monitored touched the trousers of an EW with his bare hand. In addition, only the soles of the shoes, hands, knees, head, and shoulders of the EW were monitored.

**Possible Cause:** The individual who performed the monitoring was not adequately trained in proper techniques for personnel monitoring.

**Reference:** NUREG-0654, K.5.a

**Effect:** There are three possible effects. The individual performing the monitoring could become contaminated from touching the EW being monitored. The pancake probe could become contaminated resulting in inaccurate survey readings. Contamination of an EW could go undetected and possibly be spread.

**Recommendation:** Train all individuals having monitoring responsibilities in proper monitoring techniques including contamination control.

**Schedule of Corrective Actions:** The monitoring function will be preformed by locally provided team members. We will change our procedural document to indicate that the personal will be found and trained locally, just as we do our sampling teams. A number of monitoring team training sessions and drills will occur. The following is a list of the dates and location of the proposed training sessions and drills: February 8 and 22, 2007, in La Porte County - Basic Monitoring team procedures; March 22 and 29, 2007, in Lake County – Basic Monitoring team procedures; April 19-20, 2007, in Lake and La Porte County – Monitoring Team Drills; and April 20, 2007, in Lake County – a re-demonstration.

- d. **NOT DEMONSTRATED:** NONE
- e. **PRIOR ISSUES – RESOLVED:** NONE
- f. **PRIOR ISSUES – UNRESOLVED:** NONE



### 3.5 Sampling Teams 1 and 2

- a. **MET:** Criteria 1.a.1; 1.d.1; 1.e.1; 3.a.1; and 4.b.1
- b. **DEFICIENCY:** NONE
- c. **AREAS REQUIRING CORRECTIVE ACTION:** NONE
- d. **NOT DEMONSTRATED:** NONE
- e. **PRIOR ISSUES – RESOLVED:** Criterion 4.b.1 (Old Objective 24)

**Issue No.:** 15-01-24-A-01 (New Criterion 4.b.1.)

**Condition:** On July 11, 2001, during the D.C. Cook ingestion pathway exercise, the ingestion pathway sampling team did not adequately demonstrate the use of radiation instrumentation or an adequate knowledge of radiation control techniques to safely obtain environmental samples. The wrong scale on a radiation-monitoring instrument was used, the difference between mR/hr and cpm was not understood, and documentation of contamination levels was incorrectly recorded. The method of personnel survey for contamination was too fast and too far from the skin to detect contamination. Protective clothing was not worn in a field with approximately two-foot high vegetation where suspected contamination levels were unknown

**Corrective Action Demonstrated:** The Sampling Team 1 Team Leader described by interview the type of protective clothing that would be worn in a situation with high vegetation and the procedure for donning the protective clothing. The team leader then entered the vegetation to access a stream to demonstrate the process for collecting a water sample, correctly surveying the sample using correct scales on the monitoring instruments, bagging, and correctly labeling the sample. The team leader then described the process for removing and disposing of the protective clothing.

Sampling Team 2 members checked the sample bags and themselves for contamination using the THERMO ESM 4H 40 G-L radiological survey instrument with an FH 732 GM probe. Proper use (survey speed) and knowledge of the monitoring equipment was demonstrated. Sample Team 2 wore appropriate PPE for the task. Discussions conducted with the team indicated they had knowledge on upgrading PPE to more protective suits if needed to enter high vegetative cover areas.

- f. **PRIOR ISSUES – UNRESOLVED:** NONE

## APPENDIX 1

### ACRONYMS AND ABBREVIATIONS

The following is a list of the acronyms and abbreviations that were used in this report and are used in the REP Program.

ACP	Access Control Point
ALARA	As Low As Reasonable Achievable
ARC	American Red Cross
ARCA	Area Requiring Corrective Action
ARES	Amateur Radio Emergency Services
ATG	Office of the Illinois Attorney General
CAP	Civil Air Patrol
CCC	Congregate Care Center
CD-V	Civil Defense-Category V
CFO	Chicago Field Office
CFR	Code of Federal Regulations
cpm	counts per minute
DCO	Dosimetry Control Officer
DHS	Department of Homeland Security
DRD	Direct-Reading Dosimeter
EAL	Emergency Action Level
ECL	Emergency Classification Level
EOC	Emergency Operations Center
EOF	Emergency Operations Facility
EPZ	Emergency Planning Zone
EV-2	Protective Actions for School Children
EW	Emergency Worker
FEMA	Federal Emergency Management Agency
FTC	Field Team Center
GE	General Emergency
HP	Health Physics or Health Physicist
HS	High School
ICC	Illinois Commerce Commission
ICF	ICF Consulting
IDA	Illinois Department of Agriculture
IDHS	Illinois Department of Human Services

IDMA	Illinois Department of Military Affairs
IDNR	Illinois Department of Natural Resources
IDOT-A	Illinois Department of Transportation-Division of Aeronautics
IDOT-H	Illinois Department of Transportation-Division of Highways
IDPH	Illinois Department of Public Health
IEMA	Illinois Emergency Management Agency
IEPA	Illinois Environmental Protection Agency
IPRA	Illinois Plan for Radiological Accidents
IREACH	Illinois Radio Emergency Aid Channel
ISP	Illinois State Police
JIC	Joint Information Center
KI	Potassium Iodide
LEIRS	Local Emergency Information Radio Station
LD	Luminescent Dosimeter
M&D	Monitoring and Decontamination
mR	milliRoentgen
mR/hr	milliRoentgen per Hour
MS-1	Medical Services Drill
N/A	Not Applicable
NARS	Nuclear Accident Reporting System
NRC	U.S. Nuclear Regulatory Commission
NUREG-0654	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.
NWS	National Weather Service
ORO	Off-site Response Organization
PAD	Protective Action Decision
PAG	Protective Action Guide
PAO	Public Affairs Official
PAR	Protective Action Recommendation
PIO	Public Information Officer
PNS	Prompt Notification System
R	Roentgen
RACES	Radio Amateur Civil Emergency Services
RAFT	Radiological Assessment Field Team
RASCAL	Radiological Assessment System for Consequence Analysis
RDO	Radiological Defense Officer
RCP	Reactor Coolant Pump
RCS	Reactor Coolant System

REA	Radiation Emergency Area
REAC	Radiological Emergency Assessment Center
rem	Roentgen Equivalent Man
RERP	Radiological Emergency Response Plan
R/hr	Roentgen per hour
RO	Radiological Officer
RPCC	Radiological Preparedness Coordinating Committee
SAE	Site Area Emergency
SEOC	State Emergency Operations Center
SIRC	State of Illinois Response Center
SGTS	Standby Gas Treatment System
SOP	Standard Operating Procedure
TACP	Traffic and Access Control Point
T/L	Team Leader
UAC	Unified Area Command

## APPENDIX 2

### EXERCISE EVALUATORS AND TEAM LEADERS

The following is a list of the personnel who evaluated the Braidwood Station REP Full Participation Ingestion Pathway exercise on August 8 and 9, 2006. Evaluator Team Leaders are indicated by the letters "(TL)" after their names. The organization which each evaluator represents is indicated by the following abbreviations:

DHS      Department of Homeland Security  
DOT      U. S. Department of Transportation  
ICF      ICF Consulting

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

<u>EVALUATION SITE</u>	<u>EVALUATOR</u>	<u>ORGANIZATION</u>
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#### STATE of ILLINOIS

Initial Warning Point	Carl, Wentzell	ICF
State Emergency Operations Center (SEOC)/ State of Illinois Response Center (SIRC)	Sandra Bailey - TL Carl Bebrich David Henry Richard Wessman	DHS DHS ICF ICF
Public Inquiry Phone Bank	Carl Wentzell	ICF
Radiological Emergency Assessment Center (REAC)	Joseph Keller David Schweller	ICF ICF
Unified Area Command (UAC)	Jeff McSpaden Paul Nied Pat Taylor	DOT ICF ICF
Illinois State Police (ISP) - Traffic and Access Control Point at the UAC	Jeff McSpaden	DOT
Radiological Assessment Team	David Seebart	ICF
Illinois Emergency Management Agency (IEMA) Mobile Laboratory	Lyle Slagle	ICF
Field Teams Blue and Red	Ronald Biernacki	ICF

	David Stuenkel	ICF
Sampling Teams 1 and 2	Ronald Biernacki	ICF
	David Stuenkel	ICF
Emergency Operations Facility	Richard Grundstrom	ICF
Joint Information Center (JIC)	George McDonald	ICF
State Liaison - Grundy County	Robert Rospenda	ICF
Illinois Emergency Management (IEMA) Radiological Advisor - Grundy County	Robert Rospenda	ICF
State Liaison - Kankakee County	Ernie Boaze	ICF
IEMA Radiological Advisor - Kankakee County	Ernie Boaze	ICF
State Liaison - Will County	Michael Meshenberg	ICF
IEMA Radiological Advisor - Will County	Michael Meshenberg	ICF
Dosimetry Control Officer Briefing - ISP District 5	Carl Bebrich	DHS
Monitoring and Decontamination of Evacuees and Emergency Workers (EWs) - Joliet Junior College	Paul Nied	ICF
Monitoring and Decontamination of EWs' Equipment - Joliet Junior College	Lyle Slagle	ICF
Public Registration - Joliet Junior College	George McDonald	ICF
Congregate Care Center Interview - Joliet Junior College	George McDonald	ICF
Medical Services (MS-1) Transportation - Kurtz Ambulance	Ronald Biernacki	ICF
MS-1 Hospital - Silver Cross Hospital	Richard Grundstrom	ICF

## GRUNDY COUNTY

Initial Warning Point	Kim Wood	ICF
Emergency Operations Center	Delwyn Kinsley - TL	DHS
	Henry Christiansen	ICF
	Robert Rospenda	ICF
	Kim Wood	ICF

Protective Actions for Schools (EV-2)  
Interview - Gardner Elementary School

Henry Christiansen

ICF

## **KANKAKEE COUNTY**

Initial Warning Point

Pat Tenorio

DHS

Emergency Operations Center

Carolyn Sturghill - TL

DHS

Ernie Boaze

ICF

Gary Bolender

ICF

Gary Goldberg

ICF

Traffic and Access Control Point

Pat Tenorio

DHS

Emergency Broadcast System (EBS)  
Station - WKAN

Gary Bolender

ICF

EV-2 Interview - Reddick Grade School

Gary Bolender

ICF

## **WILL COUNTY**

Initial Warning Point

Harold Spedding

ICF

Emergency Operations Center

Harral Logaras - TL

DHS

Tracey Green

ICF

Michael Meshenberg

ICF

James McClanahan

ICF

Traffic and Access Control Point

Harold Spedding

ICF

EBS Stations -  
WJOL/WSSR/WCCQ/WRXQ

James McClanahan

ICF

EV-2 Interview -  
Wilmington School District

James McClanahan

ICF

## **STATE of INDIANA**

Indiana Department of Homeland  
Security 24-Hour Dispatcher

Clint Fransen

ICF

Indiana State Emergency Operations  
Center

Roy Smith - TL

ICF

Clint Fransen

ICF

William Wark

Indiana State Department of Health  
Radiochemistry Laboratory

Bernis Hannah

ICF

Forward Operating Center

Stephen Denson  
Richard Smith

ICF  
ICF

Sampling Teams 1 and 2

Bart Ray  
Raymond Wood

ICF  
ICF



## APPENDIX 3

### EXERCISE CRITERIA AND EXTENT-OF-PLAY AGREEMENT

This appendix lists the exercise criteria that were scheduled for demonstration in the REP Full Participation Ingestion Exposure Pathway exercise conducted on August 8 and 9, 2006, for the Braidwood Station, and the off-site extent-of-play agreements approved by DHS CFO for the States of Illinois and Indiana on July 31, 2006.

The exercise criteria, contained in FEMA "Radiological Emergency Preparedness Exercise Evaluation Methodology" as published in the Federal Register Notice, Vol. 67, No 80, 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 off-site plans and procedures, an extent-of-play agreement is prepared by the State and approved by DHS to provide evaluators with guidance on expected actual demonstration of the criteria.

## **A. Exercise Criteria and Extent-of-Play**

Listed below are the specific REP criteria scheduled for demonstration during this exercise.

### **STATE OF ILLINOIS - EXTENT OF PLAY AGREEMENT FOR THE BRAIDWOOD STATION EXERCISE August 8 - 9, 2006**

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 Regional Assistance Committee, include the following: 2.a.1, 2.b.1, 2.b.2, 5.a.1 and 5.b.1.

NOTE: A table will be developed that will indicate what agencies are participating at each facility on Day 1 and Day 2.

### **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 fully activated. The IEMA Emergency Response Telecommunicator will implement procedures for notification of IEMA staff as defined in IEMA SOPs. State agency liaisons will be contacted and will report to the SIRC. A roster will be provided to demonstrate 24-hour staffing of the SIRC and REAC. The evaluators will not be allowed to remove the rosters.

The Unified Area Command (UAC) will be activated with State district and regional personnel on Day 1. The radiological field team staging area in Mazon will be activated on Day 1 and 2. IEMA personnel will be pre-positioned in the local area and dispatched to the county EOCs, UAC, field team staging area, EOF, TSC and the JIC. DHS will not evaluate the TSC.

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

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

This criterion will not be demonstrated during this exercise.

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

The ability to direct and control emergency response activities will be demonstrated at the SIRC, REAC, the UAC, field team staging area and the JIC. Coordination will be demonstrated between the SIRC, the REAC, the UAC, field team staging area, 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, 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. The availability of dosimetry will be demonstrated at the field team staging area. An equipment check will be performed at the field team staging area. The Exposure Control Officer will provide information regarding dosimetry inventory. DCO logs will be available from the IEMA liaisons in the county EOCs.

A DCO briefing will be conducted by the Illinois State Police on August 7 (tentative) at the ISP District 5 Headquarters. During this briefing, 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 the REAC on Day 1. A message will be injected to the IEMA Radiological Advisor in the Will 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. The REAC will make an evaluation of the data and make a protective action recommendation to the SIRC on Day 1.

**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 the REAC on Day 1.

The capability to determine which centers should be activated for monitoring, decontamination, registration, reception and congregate care will be demonstrated at the UAC, with input from the SIRC and REAC, on Day 1.

**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 the REAC on Day 1.

The ability to make the decision to recommend the use of KI to institutionalized persons will be demonstrated in the REAC on Day 1.

**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.

The ability to assess radiological consequences will be demonstrated during the post-emergency phase of the exercise on Day 2. Field measurements simulated to come from the field team staging area will be supplied to the decision makers for purposes of this demonstration.

**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 capability to develop preliminary decisions on relocation, re-entry and return will be demonstrated through coordination between the SIRC and REAC on Day 2. Data will be provided by the controller which will drive the discussion.

### **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 traffic and access control demonstration at the UAC. The Illinois State Police will bring dosimetry packets to the UAC from their district headquarters. This criterion will also be demonstrated at the field team staging area.

A DCO briefing will be conducted by the Illinois State Police on August 7 (tentative) 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 traffic and access control demonstration. The Illinois State Police will bring dosimetry packets to the UAC from their district headquarters. This criterion will also be demonstrated at the field team staging area.

A DCO briefing will be conducted by the Illinois State Police on August 7 (tentative) 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 Braidwood Station EPZ Traffic and Access Control Procedures. The Illinois State Police (ISP) will demonstrate one traffic and access control post during the exercise. The post for the demonstration will be selected by the ISP during the exercise based on exercise play. The Trooper will drive to the selected post location for the demonstration. The staffing of the remaining State posts will be simulated.

**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 by a Controller 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 be demonstrated in the State EOC (SIRC and REAC) during the post-emergency phase on Day 2.

**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 be demonstrated in the State EOC (SIRC and REAC) during the post-emergency phase on Day 2. A camera-ready booklet will be available and procedures for distribution will be discussed.

**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.

The ability to implement appropriate preliminary measures for relocation, re-entry and return will be demonstrated through coordination between the SIRC and REAC on Day 2.

#### **EVALUATION AREA 4 - FIELD MEASUREMENT AND ANALYSIS**

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

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

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

This criterion will be demonstrated at field team staging area on Day 1.

**Criterion 4.a.3:** Ambient radiation measurements are made and recorded at appropriate locations, and radioiodine and particulate samples are collected. Teams will move to an appropriate low background location to determine whether any significant (as specified in the plan and/or procedures) amount of radioactivity has been collected on the sampling media.

This criterion will be demonstrated on Day 1 by the field teams and information will be coordinated with the field team staging area. Two field teams will be evaluated. Both teams will take an air sample with particulate filters and the filters will be analyzed at the Mobile Laboratory.

**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 be demonstrated on Day 2 by the field teams. Samples appropriate to the area and season will be collected and transported in accordance with SOPs. Two field teams will be evaluated. Other State agency staff will be integrated with the IEMA personnel on the field teams.

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

This criterion will be demonstrated by the IEMA Mobile Laboratory at the field team staging area. Pre-packaged samples appropriate to the area, season and scenario will be provided to the lab, prepared and analyzed in accordance with SOPs.

## **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.

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 EPZ counties. This monitoring will be accomplished by IEMA liaisons in the county EOCs.

**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 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 on Day 1 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 SIRC when appropriate.

A rumor control phone bank for public inquiries will be operated by the State during the exercise on Day 1.

## **EVALUATION AREA 6 - SUPPORT OPERATION/FACILITIES**

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

This criterion will be demonstrated at Joliet Junior College during an out of sequence demonstration conducted on August 7 (tentative). Two portal monitors will be set up during the demonstration. The appropriate number of evacuees will be processed to meet the 20% in 12 hours requirement.

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

This criterion will be demonstrated at Joliet Junior College during an out of sequence demonstration conducted on August 7 (tentative). Two portal monitors will be set up during the demonstration. The ability to decontaminate emergency worker equipment and vehicles will be fully demonstrated by field team personnel.

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

This criterion will be demonstrated at Joliet Junior College during an out of sequence demonstration conducted on August 7 (tentative). Local organizations responsible for operating a reception and congregate care center will be present to demonstrate this criterion.

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

This criterion will be demonstrated during a drill conducted on August 7 (tentative).



**GRUNDY COUNTY - EXTENT OF PLAY AGREEMENT  
FOR THE  
BRAIDWOOD STATION EXERCISE  
August 8, 2006**

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 Regional Assistance 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-Braidwood. Representatives from IEMA and Exelon will staff the County EOC but will not be pre-positioned in the EOC. A roster will be provided to demonstrate 24-hour staffing of the EOC. Evaluators will not be allowed to remove the roster from the EOC.

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

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

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

This criterion was demonstrated in the Grundy County EOC during the 2002 Dresden exercise. It will not be demonstrated during this exercise.

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

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

**Criterion 1.d.1:** At least two communication systems are available, at least one operates

properly, and communication links are established and maintained with appropriate locations. Communications capabilities are managed in support of emergency operations.

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

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

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

This criterion does not apply to Grundy County.

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

This criterion will not be demonstrated during this exercise.

### **EVALUATION AREA 3 - PROTECTIVE ACTION IMPLEMENTATION**

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

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

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

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 interview.

**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.

A school interview will be conducted at the Gardner Elementary School during the week of the exercise. The District Superintendent, Principal, 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 does not apply to Grundy County. Grundy County is not responsible for staffing any of the designated traffic and access control posts.

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

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

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

This criterion does not apply to Grundy County.

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

This criterion does not apply to Grundy County.

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

This criterion will not be demonstrated during this exercise.

#### **EVALUATION AREA 4 - FIELD MEASUREMENT AND ANALYSIS**

This evaluation area does not apply to Grundy County.

## EVALUATION AREA 5 - EMERGENCY NOTIFICATION AND PUBLIC INFORMATION

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

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

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

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

Coordination between Grundy County, Will County and Kankakee 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-Braidwood 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.

**KANKAKEE COUNTY - EXTENT OF PLAY AGREEMENT  
FOR THE  
BRAIDWOOD STATION EXERCISE  
August 8, 2006**

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 Regional Assistance 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.

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

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

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

This criterion will 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 Kankakee County EOC. Coordination of decisions and emergency activities will be demonstrated between Kankakee County, the SIRC, UAC and the JIC. Coordination between Kankakee 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.

Kankakee 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.

Kankakee 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 and 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 Kankakee 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 Kankakee 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 Kankakee County officials in the County EOC. The Kankakee 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 Kankakee County officials in the County EOC. The Kankakee 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 Kankakee 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 Kankakee County EOC staff will demonstrate this criterion through discussions within the Kankakee County EOC and with REAC and UAC as appropriate. The controller will provide break messages which will contain the pre-designated State recommendation regarding relocation, re-entry and return. The Kankakee 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 Kankakee 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.

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

This criterion will also be demonstrated during the traffic and access control demonstration and school interview.

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

When notified by the State of Illinois to distribute and administer KI, Kankakee 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 control demonstration and the school interview.

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

This will be demonstrated by Kankakee 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.

Kankakee County officials will demonstrate this capability through the simulated implementation of the appropriate procedures in the County EOC. The EPZ school and transportation provider will be contacted during the exercise.

An interview will be conducted with Reddick Elementary School staff during the week of the exercise at the Herscher District Office. The Principal, 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.

Coordination between Kankakee 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 Kankakee County during the exercise based on exercise play. The deputy will drive to the selected post location for the demonstration. The staffing of the remaining posts will be simulated.

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

The Kankakee 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 Kankakee 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 Kankakee 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 Kankakee County EOC. Kankakee County EOC staff will coordinate with REAC, UAC, and the JIC as appropriate. The State will participate to the extent necessary to support Kankakee

County.

#### **EVALUATION AREA 4 - FIELD MEASUREMENT AND ANALYSIS**

This evaluation area does not apply to Kankakee 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.

Kankakee 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 Braidwood Station EPZ Prompt Notification System as defined in IPRA-Braidwood. 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 (WKAN). 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 Kankakee 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 Kankakee County.

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

Kankakee County will demonstrate this criterion by using pre-scripted messages as indicated in IPRA-Braidwood. 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 Kankakee County through a briefing held at the Kankakee 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 Kankakee County through coordination between the County EOC and the JIC. The Kankakee 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 Kankakee County.

**WILL COUNTY - EXTENT OF PLAY AGREEMENT  
FOR THE  
BRAIDWOOD STATION EXERCISE  
August 8, 2006**

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

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

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

This criterion will not be demonstrated during this exercise.

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

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

The Will County EOC staff will demonstrate this criterion through discussions within the Will County EOC and with REAC and UAC as appropriate. The controller will provide break messages which will contain the pre-designated State recommendation regarding relocation, re-entry and return. The Will 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 Will 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.

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

This criterion will also be demonstrated during the traffic and access control demonstration and the school interview.

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

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 the municipalities of the State's recommendation. This criterion will also be demonstrated during the traffic control demonstration and the school interview.

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

This will be demonstrated by Will 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.

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

A school interview will be conducted with the Wilmington School District during the week of the exercise 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.

Coordination between Will 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 Will County during the exercise based on exercise play. The deputy will drive to the selected post location for the demonstration. The staffing of the remaining posts will be simulated.

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

The Will 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 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 be demonstrated through discussions in the Will County EOC. Will



County EOC staff will coordinate with REAC, UAC, and the JIC as appropriate. The State will participate to the extent necessary to support Will County.

#### **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 Braidwood Station EPZ Prompt Notification System as defined in IPRA-Braidwood. 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 Kankakee 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 this criterion by using pre-scripted messages as indicated in IPRA-Braidwood 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 Will County through a briefing held at the Will 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 Will County through coordination between the County EOC and the JIC. The Will 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 Will County.

**STATE OF INDIANA - EXTENT OF PLAY AGREEMENT  
FOR THE  
BRAIDWOOD STATION EXERCISE  
August 9, 2006**

**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 Indiana Department of Homeland Security (IDHS) will be fully activated. The IDHS dispatchers will implement notification procedures as defined in the Ingestion Pathway plan and Standard Operating Procedures (SOP's). State agency liaisons will be contacted and will report to the State Emergency Operations Center (EOC). No personnel will be pre-positioned in the EOC in accordance with the extent-of-play agreement.

The Indiana State Department of Health Forward Operations Center (FOC), located at the Michigan City Police and Fire Training Center 2510 East Michigan Blvd. Michigan City, IN, will be activated with state and local personnel. FOC and Sampling Team personnel will be sent to Michigan City the night before so they can open the FOC the day of the Ingestion Exercise.

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

This criterion will be demonstrated at the State EOC and FOC.

**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 FOC *and* State EOC.

**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.

The Indiana Department of Homeland Security (IDHS) Communications 24-hour Dispatcher serves as the initial notification point. Communications available in the Dispatch Center are two commercial telephone lines, one (800)-telephone line utilized by dispatch and the EOC, conferencing capability with the EOC, two-way radio system for communication with the Indiana State Police Department, a facsimile machine, and a computer that is linked to the computers within the EOC. Amateur radio is available with a sufficient number of individuals capable of performing this backup means of communication if circumstances warranted its use. The Indiana FOC's primary communications system is via cellular telephone. Back-up systems are via facsimile, e-mail and commercial telephone. Sampling teams will use cell phones to communicate with the FOC.

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

The State of Indiana will demonstrate the use of equipment, maps and displays to support emergency operations. The availability of dosimetry will be demonstrated at the FOC. An equipment check will be performed at FOC.

## **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.

Portions of this function will be demonstrated by the FOC and Sampling teams. Due to the minimal level of contamination expected in Indiana following an accident many portions of this object will not be demonstrated.

**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.

The ability to assess radiological consequences will be demonstrated during the post-emergency phase of the exercise. Field measurements from sampling teams through the FOC will be supplied to the decision makers, located in the EOC, for purposes of this demonstration.

## **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.

All laboratory staff and the sampling teams, gathering, receiving, processing and analyzing radioactive samples have both non-self reading and self-reading dosimeters.

**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 be demonstrated in the State EOC and the FOC during the post-emergency phase.

**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 be demonstrated in the State EOC during the post-emergency phase.

#### **EVALUATION AREA 4 - FIELD MEASUREMENT AND ANALYSIS**

**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 be demonstrated by the sampling teams. Samples appropriate to the area and season will be collected and transported in accordance with SOPs. Two field teams will be evaluated.

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

This criterion will be demonstrated by the Indiana State Health Department Lab. Samples appropriate to the area, season and scenario will be provided to the lab, prepared and analyzed in accordance with SOPs.

#### **EVALUATION AREA 5 - EMERGENCY NOTIFICATION AND PUBLIC INFORMATION**

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

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

The Indiana Department of Homeland Security (IDHS) Public Information Officer (PIO) is responsible for the preparation and dissemination of media advisories to the public upon approval by the Governor. Pre-scripted advisories are the primary method of notification of the public of the possible or actual emergency and are included in the Indiana State Ingestion Pathway Plan. They were developed for use by the PIO to expedite the process of obtaining final approval by the Governor's office. During the exercise, the PIO will monitor actions and decisions made by the appropriate officials at the EOC. Media briefings will be conducted at the State EOC. A livestock advisory will be issued to the media from the State EOC.

#### **EVALUATION AREA 6 - SUPPORT OPERATION/FACILITIES**

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

This criterion will be demonstrated at the FOC. One portal monitors will be set up during the demonstration. The ability to monitor and decontaminate emergency workers will be demonstrated.

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

This criterion will be demonstrated at the FOC. The ability to monitor and decontaminate emergency worker equipment and vehicles will be demonstrated.

## **APPENDIX 4**

### **EXERCISE SCENARIO**

This appendix contains a summary of the simulated sequence of events that was used as the basis for invoking emergency response actions by Offsite Response Organizations in the REP Full Participation Ingestion Pathway exercise conducted on August 8 and 9, 2006, for the Braidwood Station.

The plume exercise scenario was submitted by the State of Illinois and Exelon Nuclear, and approved by DHS/CFO on April 14, 2006.

During the exercise, controllers from the State of Illinois and Exelon Nuclear either gave or telephoned "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 response actions by OROs.

## SCENARIO SUMMARY

### TIMELINE

#### INITIAL CONDITIONS

Unit 1 Initial Conditions	Unit 2 Initial Conditions
<ul style="list-style-type: none"><li>• On-line Risk is GREEN.</li><li>• U1 is at 912 MWE 375 days on line.</li><li>• H2 and Zinc injections are on.</li><li>• 1B EHC Pump OOS.</li><li>• SBTG Train ? OOS – LCO for Charcoal Replacement.</li><li>• U-1 RB VENT PARTICULATE ISOTOPIC CY-QC-110-605</li><li>• U-1 WEEKLY MAIN GENERATOR / BRUSH INSPECTIONS QCEPM 0700-10</li><li>• CRD weekly/daily exercising was not completed on 3-11's last evening and must be completed by 0930 this morning.</li></ul>	<ul style="list-style-type: none"><li>• On-line Risk is GREEN.</li><li>• U2 is at 912 MWE 42 days on line.</li><li>• H2 and Zinc injections are on.</li><li>• U2 Service Air Comp is OOS for annual maintenance.</li><li>• Eos/NSOs report increased use of H2 make up to the U2 Main Generator.</li><li>• Rad Protection is assisting taking gas samples at various locations at the plant.</li><li>• U-2 RB VENT PARTICULATE ISOTOPIC CY-QC-110-605</li><li>• U-2 WEEKLY MAIN GENERATOR / BRUSH INSPECTIONS QCEPM 0700-10</li></ul>

#### SCENARIO

- 0730 (0) Crew accepts the shift.
- RP Tech has been sent to the field to perform scheduled H2 sampling associated with the Weekly Brush inspection.
- 0745 (15) Rad Protection reports that indication on the Main Turbine floor around U2 Main Generator of an explosive gas mixture, assumed to be H2, in quantities above the lower explosive limits. They have several areas on the west side of the Generator that are showing these levels. (Sampling indicates 2000ppm – meter pegged)
- 0750 (20) **Release of toxic or flammable gases within or adjacent to a Vital Area – ALERT – IIA7.2** (Unanticipated report OR detection of flammable gases within OR adjacent to Vital Area in concentration greater than the lower flammability limit.)
- EO reports he can hear a hissing sound around the U2 Main Generator.
  - Crew declares **ALERT – IIA7**
  - Rapid shutdown of Unit 2 de-gas U2 Main Generator.
- 0800 (30) During Unit 1 CRD testing RMCS switch fail-rods cannot be moved. Op Crew may call IM's to Control Room (Select Matrix Major Problem)
- 0930 (120) **Auto and Manual SCAM are not successful \_SITE AREA EMERGENCY – MS3**
- Stator Water Leak in U1 Main Generators results in a runback/SCRAM ATWS
  - A and B SBLC squibs fail (A pump fails and B valve fails)
  - CRDs cannot be inserted
  - ERO declares **SITE AREA EMERGENCY – MS3**
- 0955 (145) RCIC Governor Valve and Trips Throttle Valve Failure.



- 1100 (210)      **Loss of Fusion Products Barriers with loss or potential loss of the third barrier**  
**GENERAL EMERGENCY –FG1** (Containment: 1.c.1; Fuel Clad: 2.d; RCS: 3.a.1)
- Major Fuel Damage occurs
  - Steam Isolation fail
  - Steam Line ruptures into Reactor building – 1C MSIV will not close
  - MSL radiation >Hi alarm setpoint
  - Elevated monitored release initiates through SBT
  - ERO declares **GENERAL EMERGENCY – FG1**
  - Recommend maximum PARs IL 1, 2, 3, 5 and IA 1, 2, 3, 4, 5, 6 (Based on wind direction 275)
- 1115(225) – Release parameters indicate that a concurrent RG1 classification exists
- 1200 (270)      **Wind Shift PAR change**  
Recommend PARs IL 1, 2, 3, 5, 6 and IA 1, 2, 3, 4, 5, 6, 12 (Based on wind direction 023)
- 1330 (330)      **Terminate Exercise**

**Medical Drill Scenario**  
**Silver Cross Hospital, Joliet**  
**August 7, 2006**

The victim is a 59-year-old farmer who lives alone and was repairing livestock fencing on a farm downwind of Braidwood Station when the sirens sounded warning people of an emergency at the nuclear plant.

The victim climbed aboard an ATV and started back to home when the vehicle went out of control and overturned, pinning him underneath. It took him more than an hour to get out from under the ATV and limp back to his house. He rested briefly then drove himself to the Reception Center in Joliet.

On arrival at Joliet Junior College, the victim was limping and complained of pain on the right side of his chest. He had skin abrasions on both hands. Red Cross Medical staff said he had bruises on his right side and hip, apparently caused by the ATV accident, and should go to the hospital. EMS was summoned.

IEMA personnel conducted a survey and found minor contamination on the victim's clothing, shoes and exposed skin surfaces. (See monitoring report).

No decon or clothing removal was attempted at the Reception Center because of the victim's discomfort. EMS personnel were informed of the contamination issues and advised to take the proper precautions.

Patient's Age: 59

Address: Zilm Road, Godley, IL

Vital Signs: Blood pressure slightly elevated (140/85).

Pulse and Respirations within normal range.

Patient is alert and oriented.

Abrasions on the palms and backs of both hands.

Patient complains of some muscle pain in the right chest and soreness on the right side and hip from the ATV accident.

**Radiation Controller: Contamination Information**

1. Pancake survey results of the victim at the Reception Center: (Refer to Decon Center Log Form)  
Pant legs: 1400-1600 cpm.  
Shoe soles: 1500 cpm  
Shirt sleeves, back and shoulders (exterior): 1200-1400 cpm  
Face (forehead and cheeks): 900-1,000 cpm  
Hands (palms and back): 1,000-1,100 cpm  
NOTE: IEMA staff (or EMS) should consider removing shoes, pants and shirt prior to loading the patient for transport.

2. Upon Arrival in Hospital Treatment Area:  
If outer clothing was not left at the Reception Center, staff should simulate removal of the clothing and shoes, eliminating that contamination source. Surveys of feet, legs, arms, shoulder and back show less than 100 cpm.  
Exposed skin readings (face and hands), same as above.
3. Initial Decontamination:  
Initial wet wiping or flushing of hands lowers the contamination levels to 400 cpm. A second wipe or flush of the hands reduces contamination levels to 100 cpm, and no further efforts are required.  
  
Initial decon of face reduces readings to 500 cpm. Second decon attempt lowers the reading to between 200-300 cpm. Subsequent efforts do not significantly reduce the levels, i.e., contamination is fixed.
4. Ambulance/EMS Survey:  
Assuming the victim is effectively cocooned, the ambulance should be "clean."  
Depending on how carefully EMS personnel handle the victim during the cocooning and what procedures are performed in transit, it is conceivable that slight contamination (100-300 cpm) could be transferred to EMS uniforms or equipment. Wet wipes may be used to clean any contaminated locations. If any effort is made to remove clothing during transit, note how it is handled and indicate during the survey where contamination (100-200 cpm) might have been spread.