



Federal Emergency Management Agency

Region V

536 South Clark Street, 6th Floor
Chicago, IL 60605-1521

October 1, 2002

Mr. James Dyer, Regional Administrator
U.S. Nuclear Regulatory Commission Region III
801 Warrenville Road
Lisle, Illinois 60532-4351

Dear Mr. Dyer:

Enclosed is the Final Report for the Radiological Emergency Preparedness (REP) Plume Pathway Exercise conducted on July 10, 2002 for the Quad Cities Generating Station.

There were no Deficiencies. There were no Areas Requiring Corrective Action (ARCAs). One prior unresolved ARCA for Whiteside County, pertaining to the non-availability of radiological emergency procedures in the Albany Grade School, was resolved during this exercise.

Based on the results of the July 10, 2002 exercise, the offsite radiological emergency response plans and preparedness for the State of Illinois, and Rock Island and Whiteside Counties, site-specific to the Quad Cities Generating Station, can be implemented. These plans are adequate to provide reasonable assurance that appropriate measures can be taken offsite to protect the health and safety of the public.

Therefore, Title 44 CFR, Part 350, approval of the offsite radiological emergency response plans and preparedness for the State of Illinois, and Rock Island and Whiteside Counties, granted on March 2, 1984, remains in effect. Copies of this report were transmitted to the Nuclear Regulatory Commission's (NRC) National Office, the Federal Emergency Management Agency (FEMA) National Office, and the State of Illinois.

If you have any questions, please let me know or have a member of your staff contact Woodie Curtis at (312) 408-5528.

Sincerely,

A handwritten signature in black ink, which appears to read "Edward G. Buikema".

Edward G. Buikema
Regional Director

Enclosure

OCT 09 2002



Final Exercise Report

Quad Cities Generating Station

Licensee: **Exelon Nuclear**

Exercise Date: **July 10, 2002**

Report Date: **October 1, 2002**

FEDERAL EMERGENCY MANAGEMENT AGENCY
REGION V
536 South Clark Street, 6th Floor
Chicago, Illinois 60605-1521

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I. EXECUTIVE SUMMARY

On July 10, 2002, a partial participation exercise was conducted in the plume exposure pathway emergency planning zone (EPZ) around the Quad Cities Generating Station by the Federal Emergency Management Agency (FEMA), Region V. 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 FEMA's policies and guidance concerning the exercise of State and local radiological emergency response plans (RERPs) and procedures.

The most recent exercise at this site was conducted on July 12, 2000. The qualifying emergency preparedness exercise was conducted on May 20, 1981.

FEMA wishes to acknowledge the efforts of the many individuals who participated in this exercise. In the State of Illinois the risk counties of Rock Island and Whiteside participated along with the State Government.

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

This report contains the final evaluation of the biennial exercise.

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 or Areas Requiring Corrective Action (ARCAs) identified as a result of this exercise. One prior unresolved ARCA from the 2000 Quad Cities Generating Station exercise for Whiteside County (51-00-16-A-02) was resolved during this exercise. However, there are still two unresolved ARCAs from the 1998 Clinton Power Station exercise for the State of Illinois that pertain to Medical Services (MS-1) Drills.

The two unresolved ARCAs for the State of Illinois are 13-98-05-A-01 and 13-98-14-A-02, and these ARCAs are discussed in Section IV of this report. Medical Services Drills are being conducted under a pilot program presented by the State of Illinois on May 5, 1999. The pilot program remains under evaluation.

II. INTRODUCTION

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

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

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

- Taking the lead in offsite emergency planning and in the review and evaluation of RERPs and procedures developed by State and local governments;
- Determining whether such plans and procedures can be implemented on the basis of the 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 Commerce,
 - U.S. Nuclear Regulatory Commission,
 - U.S. Environmental Protection Agency,
 - U.S. Department of Energy,
 - U.S. Department of Health and Human Services,
 - U.S. Department of Transportation,
 - U.S. Department of Agriculture,
 - U.S. Department of the Interior, and
 - U.S. Food and Drug Administration.

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

Formal submission of the RERPs for the Quad Cities Generating Station to FEMA Region V by the State of Illinois and involved local jurisdictions occurred on December 15, 1982. Formal approval of these RERPs was granted by FEMA on March 2, 1984, under 44 CFR 350.

A REP exercise was conducted on July 10, 2002 by FEMA Region V 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 Quad Cities Generating 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 evaluator team, with final determinations made by the FEMA Region V RAC Chairperson and approved by the Regional Director.

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

- NUREG-0654/FEMA-REP-1, Rev. 1, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," November 1980;
- FEMA-REP-14, "Radiological Emergency Preparedness Exercise Manual," September 1991; and
- The FEMA "Radiological Emergency Preparedness: Exercise Evaluation Methodology; Notice," as published in the Federal Register Notice, Volume 67, Number 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 objectives at each jurisdiction or functional entity evaluated in a jurisdiction-based, issues only format. This section also contains descriptions of unresolved ARCAs assessed during previous exercises 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 July 10, 2002 exercise to test the offsite emergency response capabilities in the area surrounding the Quad Cities Generating Station. This section of the exercise report includes 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.

A. Plume Emergency Planning Zone Description

The Quad Cities Generating Station is located in Rock Island County, Illinois. The Station is 20 miles northeast of the Quad Cities. It is on the eastern bank of the Mississippi River opposite the mouth of the Wapsipinicon River.

The topography of the site and its immediate environs is low and relatively flat, with a mean elevation of approximately 605 feet. The ground surface drops off abruptly at the bank of the river, forming a bluff about 30 feet high.

The 10-mile EPZ encompasses the following jurisdictions: Rock Island County, which includes the municipalities of Cordova and Port Byron, and Whiteside County, which includes the municipality of Albany. The 2000 population of the 10-mile EPZ is 5,940 persons.

The primary land use around the Quad Cities Station is agricultural, with cash grain crops of corn and soybeans. The closest major industries are located in the Cordova Industrial Park northeast of the Station.

Major transportation facilities in the Quad Cities Station 10-mile EPZ are limited to Interstate Highway 88, which passes nine and one-half (9 ½) miles southeast of the Station; the Chicago, Milwaukee, St. Paul and Pacific Railroad, and State Highway 84 which run adjacent and parallel to each other and pass approximately three-fourths (¾) of a mile east of the Station; and the Mississippi River.

B. Exercise Participants

The following agencies, organizations, and units of government participated in the Quad Cities Generating Station exercise on July 10, 2002.

STATE OF ILLINOIS

Illinois Department of Natural Resources (IDNR)
Illinois Department of Nuclear Safety (IDNS)
Illinois Department of Transportation (IDOT)
Illinois Emergency Management Agency (IEMA)

Illinois State Police (ISP)

RISK JURISDICTIONS

ROCK ISLAND COUNTY

Rock Island County Executive (Board Chair)
Rock Island County Emergency Services and Disaster Agency
(ESDA)
Rock Island County Health Department
Rock Island County Public Works Department
Rock Island County Regional Office of Education
Rock Island County Sheriff's Department
East Moline Police Department
Cordova Mayor
Cordova ESDA
Cordova Fire Protection District
Cordova Maintenance Department
Cordova Police Department
Riverdale Community Unit School District #100

WHITESIDE COUNTY

Whiteside County Board Chairman
Whiteside County ESDA
Whiteside County Sheriff's Department
Whiteside County Highway Department
Whiteside County Health Department
Whiteside County Coroner
Whiteside County Public Information Officer
Whiteside County Regional Superintendent of Schools
Albany Village President
Albany ESDA
Albany Fire Department
Albany Police Department
Riverbend School District

PRIVATE/VOLUNTEER ORGANIZATIONS

American Red Cross
Exelon Nuclear
Radio Station WKBF/WHTS AM/FM
Radio Station WSDR/WZZT/WSSQ AM/FM

C. Exercise Timeline

Table 1, on the following page, presents the time at which key events and activities occurred during the Quad Cities Generating Station exercise on July 10, 2002. Also included are times notifications were made to the participating jurisdictions/functional entities.

TABLE 1. EXERCISE TIMELINE

DATE AND SITE: July 10, 2002, Quad Cities Generating Station

Emergency Classification Level	Time Utility Declared	Time That Notification Was Received or Action Was Taken					
		ILLINOIS STATE EOC	STATE FWD CMD POST	ROCK ISLAND COUNTY EOC	WHITESIDE COUNTY EOC	JPIC	REAC
Unusual Event	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alert	0837	0852	0920	0910	0918	0930	0854
Site Area Emergency	1004	1012	1039	1043	1043	1015	1012
General Emergency	1125	1133	1150	1148	1145	1137	1136
SIM Radiation Release Started	1125	1133	1150	1148	1145	1137	1127
SIM Radiation Release Terminated	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Facility Declared Operational		0915	0940	0953	0944	0937	0912
Declaration of State of Disaster		1115	1115	1148	1147	1145	N/A
Exercise Terminated		1320	1304	1310	1322	1325	1307
1 st Early Precautionary Action Decision: Place lactating animals on stored feed and protected water, out to 10 miles.		1025	1039	1040	1042	1040	1022
2 nd Early Precautionary Action Decision: Instructional message.		1044	1112	1049	1050	1129	N/A
1 st Siren Activation: Both Counties		N/A	N/A	1050	1055	N/A	N/A
1 st EAS Activation: Both Counties		N/A	N/A	1052	1058	N/A	N/A
1 st Protective Action Decision: RI County Evacuate Sub-areas 1 and 3		1054	N/A	1104	N/A	N/A	1047
2 nd Siren Activation: RI County		N/A	N/A	1105	N/A	N/A	N/A
2 nd EAS Activation: RI County		N/A	N/A	1107	N/A	N/A	N/A
2 nd Protective Action Decision: RI County Evacuate Sub-areas 1, 3, and 6		1135	N/A	1150	N/A	N/A	1135
3 rd Siren Activation: RI County		N/A	N/A	1155	N/A	N/A	N/A
3 rd EAS Activation: RI County		N/A	N/A	1157	N/A	N/A	N/A
1 st Protective Action Decision: Whiteside County Add Sub-area 2		N/A	N/A	N/A	1233	N/A	N/A
2 nd Siren Activation: Whiteside County		N/A	N/A	N/A	1240	N/A	N/A
2 nd EAS Activation: Whiteside County		N/A	N/A	N/A	1241	N/A	N/A
Recommendation to take KI		1142	1145	1132	1152	1150	1130

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IV. EXERCISE EVALUATION AND RESULTS

Contained in this section are the results and findings of the evaluation of all jurisdictions and functional entities which participated in the July 10, 2002, exercise to test the offsite emergency response capabilities of State and local governments in the 10-mile EPZ surrounding the Quad Cities Generating Station.

Each jurisdiction and functional entity was evaluated on the basis of its demonstration of exercise criteria delineated in the FEMA "Radiological Emergency Preparedness: Exercise Evaluation Methodology; Notice," as published in the Federal Register Notice, Volume 67, Number 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 - Table 2

The matrix presented in Table 2, on the following page(s), presents the status of all exercise criteria from the FEMA "Radiological Emergency Preparedness: Exercise Evaluation Methodology: Notice," as published in the Federal Register Notice, Volume 67, Number 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 is indicated by the use of the following letters:

- M - Met (No Deficiency or ARCAs 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 Subsection B)

TABLE 2. SUMMARY RESULTS OF EXERCISE EVALUATION

DATE AND SITE: July 10, 2002, Quad Cities Generating Station

JURISDICTIONS/FUNCTIONAL ENTITY	1.	1.	1.	1.	1.	2.	2.	2.	2.	2.	2.	3.	3.	3.	3.	3.	3.	3.	3.	4.	4.	4.	4.	4.	5.	5.	5.	5.	6.	6.	6.	6.
	a.	b.	c.	d.	e.	a.	b.	b.	c.	d.	e.	a.	b.	c.	c.	d.	d.	e.	e.	f.	a.	a.	a.	b.	c.	a.	a.	a.	b.	a.	b.	c.
STATE OF ILLINOIS																																
Initial Warning Point	M			M																												
State Emergency Operations Center	M		M	M	M			M																					M			
Radiological Emergency Assessment Center					M	M	M	M	M																							
State Forward Command Post	M		M	M		M						M	M			M														M	M	M
Traffic and Access Control Point																M																
Emergency Operations Facility	M		M																													
Joint Public Information Center	M		M																										M			
Evacuee/Emergency Worker Monitoring/Decontamination/Registration		M										M																		M		
Emergency Worker Equipment/Vehicle Monitoring and Decontamination												M																			M	
Congregate Care		M																														M
RISK JURISDICTIONS																																
ROCK ISLAND COUNTY																																
Initial Notification Point	M			M																												
County Emergency Operations Center	M	M	M	M	M			M	M			M	M	M	M		M									M			M			
Local Media Briefing																														M		
Traffic and Access Control Point												M	M			M																
EAS Radio Station WKBF/WHTS AM/FM																											M					
Riverdale Community Unit School District #100					M							M			M																	
WHITESIDE COUNTY																																
Initial Notification Point	M			M																												
County Emergency Operations Center	M	M	M	M	M			M	M			M	M	M	M	M	M									M			M			
Local Media Briefing																														M		
Traffic and Access Control Point												M	M			M																
Joint Public Information Center Liaison																														M		
EAS Radio Station WSDR/WZZT/WSSQ AM/FM																												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 exercises

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 is a definition of the terms used in this subsection relative to criterion demonstration status.

- **Met** - Listing of the demonstrated exercise objectives 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 objectives under which one or more Deficiencies was assessed during this exercise. Included is a description of each Deficiency and recommended corrective actions.
- **Area Requiring Corrective Actions** - Listing of the demonstrated exercise criteria under which one or more ARCAs were 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 which were not demonstrated as scheduled during this exercise and the reason they were not demonstrated.
- **Prior ARCAs - Resolved** - Descriptions of ARCAs assessed during previous exercises which were resolved in this exercise and the corrective actions demonstrated.
- **Prior ARCAs - Unresolved** - Descriptions of ARCAs assessed during prior exercises which 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 which are 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."

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

The identifying number for 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 Codes.
- **Exercise Year** - The last two digits of the year the exercise was conducted.
- **Criterion Number** - A three-digit number corresponding to the criteria numbers in the FEMA "Radiological Emergency Preparedness: Exercise Evaluation Methodology; Notice," as published in the Federal Register Notice, Volume 67, Number 80, dated April 25, 2002.
- **Issue Classification Identifier** - (D = Deficiency, A = ARCA). Only Deficiencies and ARCA are included in exercise reports.
- **Exercise Issue 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 ARCAs – RESOLVED: NONE
- f. PRIOR ARCAs – UNRESOLVED: NONE

1.2 State Emergency Operations Center

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

1.3 Radiological Emergency Assessment Center

- a. MET: Criteria 1.a.1, 1.c.1, 1.d.1, 1.e.1, 2.a.1, 2.b.1, 2.b.2 and 2.c.1
- b. DEFICIENCY: NONE
- c. AREAS REQUIRING CORRECTIVE ACTION: NONE
- d. NOT DEMONSTRATED: NONE
- e. PRIOR ARCAs - RESOLVED: NONE
- f. PRIOR ARCAs - UNRESOLVED: NONE

1.4 State Forward Command Post

- a. MET: Criteria 1.a.1, 1.c.1, 1.d.1, 1.e.1, 2.a.1, 3.a.1, 3.b.1, 3.d.1, 6.a.1, 6.b.1 and 6.c.1
- b. DEFICIENCY: NONE
- c. AREAS REQUIRING CORRECTIVE ACTION: NONE
- d. NOT DEMONSTRATED: NONE
- e. PRIOR ARCAs - RESOLVED: NONE
- f. PRIOR ARCAs - UNRESOLVED: NONE

1.5 Traffic and Access Control Point

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

1.6 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 ARCAs – RESOLVED: NONE
- f. PRIOR ARCAs – UNRESOLVED: NONE

1.7 Joint Public Information Center

- a. MET: Criteria 1.a.1, 1.c.1, 1.d.1 and 5.b.1

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

1.8 Evacuee/Emergency Worker Monitoring/Decontamination/Registration

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

1.9 Emergency Worker Equipment/Vehicle Monitoring and Decontamination

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

1.10 Congregate Care

- a. MET: Criteria 1.b.1 and 6.c.1
- b. DEFICIENCY: NONE
- c. AREAS REQUIRING CORRECTIVE ACTION: NONE

- d. NOT DEMONSTRATED: NONE
- e. PRIOR ARCAs - RESOLVED: NONE
- f. PRIOR ARCAs - UNRESOLVED: NONE

1.11 Medical Services (MS-1) Drill

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

Issue No.: 13-98-05-A-01

Description: It was determined, through interviews and observation, that the Dr. John Warner Hospital ambulance crew has not been trained on the use of dosimetry. They were not knowledgeable of their administrative dose limits or of the radiation exposure reading/recording procedures (NUREG-0654: H.10 and K.3.a).

Recommendation: The Dr. John Warner Hospital ambulance crews should receive training in the use of dosimetry and administrative exposure levels, and recording procedures. Additionally, the Dr. John Warner Hospital/Ambulance Emergency Plan should be revised to reflect these emergency worker protection procedures.

Schedule of Corrective Actions: Per the IEMA response to this issue, dated May 5, 1999, beginning in 1999, the State of Illinois' proposal under a pilot program presented to FEMA is that the State will continue to conduct medical drills to test the State's emergency medical system at the frequency required by FEMA guidance.

FEMA's Response: Medical services drills are being conducted under a pilot program presented by the State on May 5, 1999, and to date have not met the FEMA Guidance Memorandum (GM) MS-1 requirements. The pilot program remains under evaluation and we are working with IEMA and IDNS staffs to further demonstrate State and offsite medical capabilities.

Issue No.: 13-98-14-A-02

Description: By interview with the Dr. John Warner Hospital's ambulance personnel, it was determined that neither KI nor appropriate information on the use of KI was issued to the responding ambulance personnel. Training on the use of KI by ambulance personnel has not been conducted, and a discussion with the hospital's ambulance director resulted in agreement that a training program was needed and should be implemented (NUREG-0654: H.10 and K.3.a).

Recommendation: The Dr. John Warner Hospital ambulance crew should receive training in the use of KI. Also, the Dr. John Warner Hospital/Ambulance Emergency Plan should be revised to be consistent with the requirements of NUREG-0654.

Schedule of Corrective Actions: The corrective actions for this ARCA are dependent on the outcome of FEMA's decision on the State's proposal as cited in the Schedule of Corrective Actions response for issue number 13-98-05-A-01.

FEMA's Response: Medical services drills are being conducted under a pilot program presented by the State on May 5, 1999, and to date have not met the FEMA Guidance Memorandum (GM) MS-1 requirements. The pilot program remains under evaluation and we are working with IEMA and IDNS staffs to further demonstrate State and offsite medical capabilities.

2. RISK JURISDICTIONS

2.1 ROCK ISLAND COUNTY

2.1.1 Initial Notification 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 ARCAs - RESOLVED: NONE**
- f. PRIOR ARCAs - UNRESOLVED: NONE**

2.1.2 County 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, 3.a.1, 3.b.1, 3.c.1, 3.c.2, 3.d.2, 5.a.1 and 5.b.1.**

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

2.1.3 Local Media Briefing

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

2.1.4 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 ARCAs - RESOLVED: NONE
- f. PRIOR ARCAs - UNRESOLVED: NONE

2.1.5 EAS Radio Station WKBF/WHTS AM/FM

- a. MET: Criteria 5.a.1 and 5.b.1
- b. DEFICIENCY: NONE

- c. **AREAS REQUIRING CORRECTIVE ACTION: NONE**
- d. **NOT DEMONSTRATED: NONE**
- e. **PRIOR ARCAs - RESOLVED: NONE**
- f. **PRIOR ARCAs - UNRESOLVED: NONE**

2.1.6 Riverdale Community Unit School District #100 EV-2 Interview

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

2.2 WHITESIDE COUNTY

2.2.1 Initial Notification 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 ARCAs - RESOLVED: NONE**
- f. **PRIOR ARCAs - UNRESOLVED: NONE**

2.2.2 County 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, 3.a.1, 3.b.1, 3.c.1, 3.c.2, 3.d.1, 3.d.2, 5.a.1 and 5.b.1**
- b. **DEFICIENCY: NONE**

- c. **AREAS REQUIRING CORRECTIVE ACTION: NONE**
- d. **NOT DEMONSTRATED: NONE**
- e. **PRIOR ARCAs - RESOLVED: NONE**
- f. **PRIOR ARCAs - UNRESOLVED: NONE**

2.2.3 Local Media Briefing

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

2.2.4 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 ARCAs - RESOLVED: NONE**
- f. **PRIOR ARCAs - UNRESOLVED: NONE**

2.2.5 Joint Public Information Center Liaison

- a. **MET: Criteria 1.d.1, 1.e.1, 3.d.2 and 5.b.1**
- b. **DEFICIENCY: NONE**
- c. **AREAS REQUIRING CORRECTIVE ACTION: NONE**
- d. **NOT DEMONSTRATED: NONE**

- e. PRIOR ARCAs - RESOLVED: NONE
- f. PRIOR ARCAs - UNRESOLVED: NONE

2.2.6 EAS Radio Station WSDR/WZZT/WSSQ AM/FM

- a. MET: Criteria 1.b.1, 1.d.1, 1.e.1, 5.a.1 and 5.b1
- b. DEFICIENCY: NONE
- c. AREAS REQUIRING CORRECTIVE ACTION:
- d. NOT DEMONSTRATED: NONE
- e. PRIOR ARCAs - RESOLVED: NONE
- f. PRIOR ARCAs - UNRESOLVED: NONE

2.2.7 Riverbend School District

- a. MET: NONE
- b. DEFICIENCY: NONE
- c. AREAS REQUIRING CORRECTIVE ACTION: NONE
- d. NOT DEMONSTRATED: NONE
- e. PRIOR ARCAs – RESOLVED:

Issue No.: 51-00-16-A-02 (Now Criterion 3.c.2)

Description: The Albany Elementary School Principal indicated that the school had appropriate written procedures; and when requested, he produced a file of written procedures for emergencies. The file included a ComEd Emergency Planning folder for the Quad Cities Area and typed procedures that appeared to be largely generic or written specifically for other types of emergencies (for example, what to do if an individual has a firearm). (NUREG-0654: II.A.2.a.)

Corrective Action Demonstrated: During a visit to the Albany Elementary School on September 9, 2002, the Principal presented the school's radiological emergency response procedures to the FEMA evaluator for review. The procedures were adequate to ensure the health and safety of the students and staff. The visit was made in accordance with

the State of Illinois' revised extent-of-play agreement for the Quad Cities Generating Station's 2002 Biennial Radiological Emergency Response Exercise.

f. PRIOR ARCAS – UNRESOLVED: NONE

APPENDIX 1

ACRONYMS AND ABBREVIATIONS

The following is a list of the acronyms and abbreviations which were used in this report.

ACP	Access Control Point
ARC	American Red Cross
ARCA	Area Requiring Corrective Action
CAP	Civil Air Patrol
CD V	Civil Defense – Category V
CFR	Code of Federal Regulations
CPM	Counts Per Minute
DOE	U.S. Department of Energy
DRD	Direct Reading Dosimeter
EAL	Emergency Action Level
EAS	Emergency Alert System
EBS	Emergency Broadcast System
ECL	Emergency Classification Level
EOC	Emergency Operations Center
EOF	Emergency Operations Facility
EPZ	Emergency Planning Zone
ESDA	Emergency Services and Disaster Agency
GE	General Emergency
ICC	Illinois Commerce Commission
IDA	Illinois Department of Agriculture
IDHS	Illinois Department of Human Services
IDMA	Illinois Department of Military Affairs
IDNR	Illinois Department of Natural Resources
IDNS	Illinois Department of Nuclear Safety
IDOT	Illinois Department of Transportation
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
JPIC	Joint Public Information Center

KI	Potassium Iodide
mR	milliroentgen
mR/h	milliroentgen per hour
NARS	Nuclear Accident Reporting System
NRC	U.S. Nuclear Regulatory Commission
NUREG-0654	NUREG-0654/FEMA-REP-1, Rev. 1, <i>"Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," November 1980</i>
NWS	National Weather Service
ORO	Offsite 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
RAC	Regional Assistance Committee
RACES	Radio Amateur Civil Emergency Service
RAFT	Radiological Assessment Field Team
RDO	Radiological Defense Officer
REA	Radioactive Emergency Area
REAC	Radiological Emergency Assessment Center
REM	Roentgen Equivalent Man
REP	Radiological Emergency Preparedness
R/h	Roentgen(s) per hour
RO	Radiological Officer
SAE	Site Area Emergency
SEOC	State Emergency Operations Center
SFCP	State Forward Command Post
SOP	Standard Operating Procedure
TCP	Traffic Control Point
TL	Team Leader
TLD	Thermoluminescent Dosimeter

APPENDIX 2

EXERCISE EVALUATORS AND TEAM LEADERS

The following is a list of the personnel who evaluated the Quad Cities Generating Station exercise on July 10, 2002. Evaluator Team Leaders are indicated by the letters "(TL)" after their names. The organization which each evaluator represents is indicated by the following abbreviations:

FEMA - Federal Emergency Management Agency
 ICF - ICF Consulting

<u>RAC CHAIR/EXERCISE DIRECTOR</u>	<u>NAME</u>	<u>ORGANIZATION</u>
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RAC Chair and Exercise Director	W. Curtis	FEMA
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<u>EVALUATION SITE</u>	<u>EVALUATOR</u>	<u>ORGANIZATION</u>
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STATE OF ILLINOIS

Emergency Operations Center	C. Sturghill (TL)	FEMA
	D. Moffet	ICF
Radiological Emergency Assessment Center	R. Grundstrom	ICF
State Forward Command Post - Traffic and Access Control	H. Harrison	ICF
	C. Zeppenfeld	ICF
Emergency Operations Facility	D. Stutz	ICF
Joint Public Information Center	W. Lueders	ICF
Monitoring and Decontamination of Evacuees and Emergency Workers, and Registration of Evacuees	D. Stutz	ICF
Monitoring and Decontamination of Emergency Worker Equipment	D. Stutz	ICF
Congregate Care	D. Stutz	ICF

ROCK ISLAND COUNTY

Emergency Operations Center	C. Crackel (TL)	FEMA
	E. Boaze	ICF
	R. Samsel	ICF
	R. Smith	ICF
Traffic and Access Control	R. Samsel	ICF
EAS Radio Station WKBF/WHTS	E. Boaze	ICF

EVALUATION SITE

EVALUATOR

ORGANIZATION

WHITESIDE COUNTY

Emergency Operations Center	G. Naskrent (TL)	FEMA
	P. Nied	ICF
	W. Serrano	ICF
Traffic and Access Control	W. Serrano	ICF
Joint Public Information Center Liaison	W. Lueders	ICF
EAS Radio Station WSDR/WZZT/WSSQ	P. Nied	ICF

APPENDIX 3

EXERCISE CRITERIA AND EXTENT-OF-PLAY AGREEMENT

This appendix lists the exercise criteria that were scheduled for demonstration in the Quad Cities Generating Station exercise on July 10, 2002, and the extent-of-play agreement.

The exercise criteria, contained in the new FEMA "Radiological Emergency Preparedness Exercise Methodology and Alert and Notification: Notices," as published in the Federal Register Notice dated September 12, 2001, 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 objectives are intended for use at all nuclear power plant sites, and because of variations among offsite plans and procedures, an extent-of-play agreement is prepared by the State and approved by FEMA to provide evaluators with guidance on expected actual demonstration of the objectives.

A. Exercise Criteria

Listed below are the specific radiological emergency preparedness criteria scheduled for demonstration during this exercise.

EVALUATION AREA 1: EMERGENCY OPERATIONS MANAGEMENT

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

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

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.

CRITERION 1.d.1: At least two communications 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.

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

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.

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.

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).

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

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 plans 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.

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.

CRITERION 3.c.1: Protective action decisions are implemented for special populations other than schools within areas subject to protective actions.

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

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

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

EVALUATION AREA 5: EMERGENCY NOTIFICATION & PUBLIC INFORMATION

CRITERION 5.a.1: Activities associated with primary alerting and notification of the public are completed in as 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.

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

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.

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.

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 (found in MASS CARE-Preparedness Operations, ARC 3031). 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.

B. Extent-of-Play Agreement

The extent-of-play agreement on the following pages was submitted by the State of Illinois in preparation for the Quad Cities Generating Station exercise on July 10, 2002. The extent-of-play agreement includes any significant modification or change in the level of demonstration of each exercise criterion listed in Subsection A of this appendix.

STATE OF ILLINOIS CRITERIA:

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.

The State Emergency Operations Center (EOC) will be partially activated. The IEMA Emergency Response Telecommunicator will implement procedures for notification of IEMA staff as defined in IEMA SOPs. IEMA and IDNS representatives will staff the State EOC. A roster will be provided to demonstrate 24-hour staffing of the State EOC.

The State Forward Command Post (SFCP) at the IDOT Maintenance Yard in Morrison will be activated with State district and regional personnel. IEMA personnel will be pre-positioned in the local area and dispatched to the county EOCs, SFCP, EOF and the JPIC.

The IDNS Telecommunicator will implement notification procedures in accordance with IDNS SOPs. REAC will be partially activated. A roster will be provided to demonstrate 24-hour staffing of REAC. RAFT will be activated in Springfield for training purposes. IDNS personnel will be pre-positioned in the local area for response to the county EOCs, SFCP, EOF, JPIC and TSC.

The pre-positioned State staff will begin exercise play at the following facilities no earlier than the Alert ECL: EOCs, SFCP, EOF, JPIC and TSC.

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 State EOC, REAC, the SFCP and the JPIC. Coordination will be demonstrated between the State EOC, REAC, the SFCP, the JPIC 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.

IDNS (intra/inter-agency) communications capabilities will be demonstrated in accordance with appropriate SOPs (e.g. NARS, telefax, commercial telephone, radio).

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 use of dosimetry and KI will be demonstrated at the SFCP. DCO logs will be available from the IDNS liaisons in the county EOCs.

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 by IDNS in REAC.

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

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

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 State EOC and REAC.

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

The coordination to determine protective action recommendations (PARs) based upon available shelters, evacuation time estimates and other relevant factors will be demonstrated between the State EOC and REAC.

The ability to make the decision to recommend the use of KI to institutionalized persons will be demonstrated by IDNS in REAC. See Criterion 2.a.1.

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 SFCP. The Illinois State Police will bring dosimetry packets to the SFCP from their district headquarters.

Criterion 3.b.1: KI and appropriate instructions area 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 SFCP from their district headquarters.

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 SFCP and the county EOCs, in accordance with the Quad Cities 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 demonstration will take place in the parking lot of the SFCP. 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 SFCP 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, discussing its estimated time of arrival, etc.

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 counties. This monitoring will be accomplished by the SFCP through the IEMA representatives in the county EOCs.

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 JPIC in coordination with the State EOC, REAC, SFCP and the county EOCs. IEMA and IDNS personnel will be present at the JPIC to coordinate with the utility staff. Media briefings will be conducted at the JPIC.

A rumor control phone bank for public inquiries will not be operated by the State during the exercise.

EVALUATION AREA 6 – SUPPORT OPERATION/FACILITIES

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

During the exercise, the capability to determine which centers should be activated for monitoring, decontamination and registration will be demonstrated through coordination between the SFCP and REAC.

An interview of State and local officials and inspection of Rock Island High School will be conducted during the week of the exercise. The following organizations will be represented at the interview: Rock Island County ESDA, Rock Island Police and Fire Departments, American Red Cross, IEMA and IDNS. Evacuees will not be processed. Monitoring equipment will not be available at the interview/inspection.

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

During the exercise, the capability to determine which facilities will be used for monitoring and decontamination of emergency workers, equipment and vehicles will be demonstrated through coordination between the SFCP and REAC.

An interview of State and local officials, and inspection of Rock Island High School will be conducted during the week of the exercise. The following organizations will be represented at the interview: Rock Island County ESDA, Rock Island Police and Fire Departments, American Red Cross, IEMA and IDNS. Emergency workers and equipment will not be processed. Monitoring equipment will not be available at the interview/inspection.

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

During the exercise, the capability to determine which congregate care centers should be activated will be demonstrated at the SFCP.

An interview of local officials and inspection of Rock Island High School will be conducted during the week of the exercise. Representatives of the American Red Cross will be present for the interview. Evacuees will not be processed. Equipment will not be available at the interview/inspection.

ROCK ISLAND COUNTY CRITERIA:

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.

Rock Island County intends to fully activate the Emergency Operations Center (EOC) in Milan, Illinois. The County will implement notification procedures as defined in IPRA-Quad Cities. Representatives from IEMA, IDNS, ISP and the utility 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.

An evaluator will be positioned at the County Sheriff's Communications Center (initial warning point) at the start of the 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 EOC and Rock Island County EOC. Coordination of decisions and emergency activities will be demonstrated between Rock Island County, the State EOC, the SFCP, the JPIC, and between the County and municipalities within the EPZ. Coordination between Rock Island County and Whiteside 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.

Rock Island 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.

Rock Island County will adequately demonstrate the ability to support operations through the use of maps, status boards and other displays as appropriate. The use of dosimetry and KI will be demonstrated during the traffic and access control demonstration and the school interview.

EVALUATION AREA 2 - PROTECTIVE ACTION DECISION MAKING

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 Rock Island County officials in the County EOC. The Rock Island 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 Rock Island County officials in the County EOC. The Rock Island County officials will make the final decision regarding what protective actions will be recommended to the special population groups.

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.

Rock Island County will demonstrate this criterion by close coordination with IDNS 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 and the traffic and access control demonstration.

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

When notified by the State of Illinois to distribute and administer KI, Rock Island 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.

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

This will be demonstrated by Rock Island 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 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.

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

Rock Island 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 not be conducted with the Riverdale School District during the week of the exercise. The interview will be scheduled for this fall, after the school year begins.

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

Coordination between Rock Island 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 Rock Island County during the exercise based on exercise play. The staffing of the remaining posts will be simulated.

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

The Rock Island 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.

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.

Rock Island 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 Quad Cities Station EPZ Prompt Notification System as defined in IPRA-Quad Cities. The Prompt Notification System (outdoor warning sirens) will not be activated during the exercise.

The ability to provide instructions to the public will be demonstrated through the simulated activation of the local radio station. The local radio station (WKBF/WHTS) will be contacted during the first alert and notification sequence. An evaluator will be positioned at the radio station during the exercise to monitor the initial message.

Coordination between Rock Island County and Whiteside County will be demonstrated.

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

Rock Island County will demonstrate this criterion by using pre-scripted messages as indicated in IPRA-Quad Cities. Contact with the radio station will be simulated for each alert and notification sequence following the initial sequence.

The ability to provide information to the media will be demonstrated by Rock Island County through briefings held at the Rock Island County media briefing location. If real media are not present for the briefings, 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 Rock Island County through coordination between the County EOC and the JPIC. The Rock Island County EOC

controller will inject exercise messages that 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 JPIC.

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

WHITESIDE COUNTY CRITERIA:

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.

Whiteside County intends to fully activate the Emergency Operations Center (EOC) in Morrison, Illinois. The County will implement notification procedures as defined in IPRA-Quad Cities. Representatives from IEMA, IDNS, ISP and the utility 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.

An evaluator will be positioned at the County Sheriff's Communications Center (initial warning point) at the start of the 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 EOC and Whiteside County EOC. Coordination of decisions and emergency activities will be demonstrated between Whiteside County, the State EOC, the SFCP, the JPIC, and between the County and Albany. Coordination between Whiteside County and Rock Island 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.

Whiteside 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.

Whiteside County will adequately demonstrate the ability to support operations through the use of maps, status boards and other displays as appropriate. The use of dosimetry and KI will be demonstrated during the traffic and access control demonstration.

EVALUATION AREA 2 - PROTECTIVE ACTION DECISION MAKING

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 Whiteside County officials in the County EOC. The Whiteside 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 Whiteside County officials in the County EOC. The Whiteside County officials will make the final decision regarding what protective actions will be recommended to the special population groups.

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.

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

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

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

When notified by the State of Illinois to distribute and administer KI, Whiteside 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.

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

This will be demonstrated by Whiteside 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 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.

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

Whiteside 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.

In order to clear the ARCA from 2000, a FEMA evaluator will visit the Riverbend School to verify the school procedure. A full school interview will not be conducted. This visit will be scheduled for this fall, after the school year begins.

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

Coordination between Whiteside 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 Whiteside County during the exercise based on exercise play. The staffing of the remaining posts will be simulated.

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

The Whiteside 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.

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.

Whiteside 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 Quad Cities Station EPZ Prompt Notification System as defined in IPRA-Quad Cities. The Prompt Notification System (outdoor warning sirens) will not be activated during the exercise.

The ability to provide instructions to the public will be demonstrated through the simulated activation of the local radio station. The local radio station (WSDR/WZZT/WSSQ) will be contacted during the first alert and notification sequence. An evaluator will be positioned at the radio station during the exercise to monitor the initial message.

Coordination between Whiteside County and Rock Island County will be demonstrated.

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

Whiteside County will demonstrate this criterion by using pre-scripted messages as indicated in IPRA-Quad Cities. Contact with the radio station will be simulated for each alert and notification sequence following the initial sequence.

The ability to provide information to the media will be demonstrated by Whiteside County through briefings held at the Whiteside County media briefing location. If real media are not present for the briefings, 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 Whiteside County through coordination between the County EOC and the JPIC. The Whiteside County EOC controller will inject exercise messages that 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 JPIC. County emergency broadcast messages and news releases, if issued, will be faxed to the JPIC.

APPENDIX 4

EXERCISE SCENARIO

This appendix contains a summary of the simulated sequence of events -- Exercise Scenario -- that was used as the basis for invoking emergency response actions by OROs in the Quad Cities Generating Station exercise on July 10, 2002.

This exercise scenario was submitted by the State of Illinois and Exelon and approved by FEMA Region V on May 28, 2002.

During the exercise, controllers from the State of Illinois gave "inject messages," containing scenario events and/or relevant data, to those persons or locations who would normally receive notification of such events. These inject messages were the method used for invoking response actions by OROs.

SCENARIO SUMMARY

- 0800 Initial Conditions/Weather forecast message to players.
- 0800 An ALERT is declared at Quad Cities Station.
- 0815 Exelon notifies IEMA and IDNS Telecommunicators of the ALERT via NARS.
- IEMA Telecommunicator verifies the NARS message.
- IDNS Telecommunicator activates the IDNS response team.
- IDNS Duty Officer contacts the Quad Cities Station Shift Engineer.
- IEMA Telecommunicator notifies IEMA personnel of the ALERT per SOP.
- IEMA may dispatch liaisons to the county EOCs, Forward Command Post, JPIC and EOF, if appropriate.
- IEMA notifies Governor's Office of the ALERT. (Simulated)
- IEMA may activate the State EOC, if appropriate.
- IEMA Telecommunicator notifies appropriate State agencies of the ALERT.
- IEMA notifies FEMA of the ALERT. (Simulated)
- 0830 IEMA Telecommunicator notifies the counties of the ALERT via NARS.

County telecommunicators complete and verify the NARS message.

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

Counties may activate the EOCs, if appropriate.

Municipal Telecommunicators complete and verify the NARS message.

Municipal Telecommunicators notify officials of the ALERT per SOP.

1000 A SITE AREA EMERGENCY is declared at Quad Cities Station.

1015 Exelon notifies IEMA and IDNS Telecommunicators of the SITE AREA EMERGENCY via NARS.

IEMA Telecommunicator verifies the NARS message.

REAC contacts the Quad Cities Station Shift Engineer.

State EOC is activated if not previously activated.

IEMA notifies the Governor's Office and requests that a representative report to the State EOC. (Simulated)

IEMA dispatches liaisons to the county EOCs, Forward Command Post, JPIC and EOF, if not previously dispatched.

IEMA notifies FEMA of conditions. (Simulated)

IEMA notifies State agencies (Simulated):

- Illinois State Police
- IDOT/Division of Highways
- IDOT/Aeronautics
- IDNR
- Illinois National Guard
- ICC
- American Red Cross
- IDPH
- Corrections
- IEPA
- OSFM
- others as appropriate

IDNS contacts Federal and State support agencies. (Simulated)

REAC provides an update to the State EOC Liaison and county EOC Liaisons.

REAC provides an update to the IDNS PIO.

1030 IEMA notifies the counties of the SITE AREA EMERGENCY via NARS.

County telecommunicators complete and verify the NARS message.

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

County EOCs are activated if not previously activated.

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

Municipal Telecommunicators complete and verify the NARS message.

Municipal Telecommunicators notify officials per SOP.

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

1120 A GENERAL EMERGENCY is declared at Quad Cities Station.

1135 Exelon notifies IEMA and IDNS Telecommunicators of the GENERAL EMERGENCY via NARS. Protective actions are recommended.

IEMA Telecommunicator verifies the NARS message.

The State EOC and REAC evaluate the protective action recommendation.

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

State EOC staff is advised of the situation.

IEMA advises State Forward Command Post, the EOC liaisons and JPIC staff of the situation.

IEMA notifies FEMA of conditions. (Simulated)

IDNS contacts Federal and State support agencies. (Simulated)

REAC provides an update to the State EOC Liaison and county EOC Liaisons.

REAC provides an update to the IDNS PIO.

1150

IEMA notifies the counties of the GENERAL EMERGENCY and the recommended protective actions via NARS.

County telecommunicators complete and verify the NARS message.

County telecommunicators notify County officials and municipalities per SOP.

County officials decide what protective actions will be recommended and implement public notification procedures and traffic and access control per SOPs, as applicable.

Municipal Telecommunicators complete and verify the NARS message.

Municipal Telecommunicators notify EOC staff.

1330

Illinois State EOC, SFCP and county EOCs terminate exercise play.