



Federal Emergency Management Agency

FEMA VII

Region VII

2323 Grand Blvd., Suite 900
Kansas City, MO 64108-2670

DEC 29 2000

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

Dear Mr. Dyer:

Enclosed is a copy of the final report for the November 29, 2000, medical and school drills of the offsite radiological emergency response plans site-specific to the Quad Cities Nuclear Power Station. The Federal Emergency Management Agency (FEMA) Region VII staff prepared the report. A copy of the final report will be provided to the state of Iowa by FEMA Region VII staff.

There were no deficiencies or areas requiring corrective actions identified during these drills.

The November 29, 2000, medical and school drills evaluated the offsite radiological emergency response plans and preparedness for the state of Iowa and local jurisdictions, site-specific to Quad Cities Nuclear Power Station. Based on the results of these drills, the aforementioned plans can be implemented and are adequate to provide reasonable assurance that appropriate measures can be taken offsite to provide transport and treatment of contaminated, injured, or exposed individuals, and to protect the health and safety of school children.

Should you have any questions, please contact Mr. Eric Jenkins, RAC Chairman and Chief, Preparedness and Readiness Branch, at (816) 283-7021.

Sincerely,

A handwritten signature in black ink, appearing to read "Beth Freeman", is written over a horizontal line. The signature is fluid and cursive.

Beth Freeman
Regional Director

Enclosure

cc: Vanessa Quinn, PT-CR-RP (w/enclosure)
Deborah Mauldin (w/enclosure)
Roland Lickus, NRC-III (w/enclosure)
Kathy Halvey Gibson, NRC HQ (w/enclosure)



Medical and School Drills Report

Quad Cities Nuclear Power Station

Licensee: Excelon Nuclear
Drill Date: November 29, 2000
Report Date: December 29, 2000

**FEDERAL EMERGENCY MANAGEMENT AGENCY
REGION VII
2323 Grand Boulevard, Suite 900
Kansas City, Missouri 64108**

BETH FREEMAN, REGIONAL DIRECTOR

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I. EXECUTIVE SUMMARY

On November 29, 2000, one school demonstration was conducted in the plume exposure pathway emergency planning zone (EPZ) around the Quad Cities Nuclear Power Station by the Federal Emergency Management Agency (FEMA), Region VII. The purpose of this demonstration was to assess the ability of offsite agencies to implement protective actions for school children in the event of a nuclear power plant incident. The school demonstration was held in accordance with FEMA's policies and guidance concerning the exercise of State and local radiological emergency response plans and procedures. School districts are required to demonstrate, at a minimum, one time in a 6-year cycle. The evaluators for this demonstration were Norm Valentine and Rex Jennings from FEMA.

FEMA wishes to acknowledge the efforts of the North Scott School District that participated in the school demonstration.

The following objectives, which are part of the 33 standardized objectives contained in FEMA's Exercise Manual (FEMA-REP-14), were demonstrated during the school demonstrations.

Objective Number 4 – Demonstrate the capability to communicate with all appropriate emergency personnel at facilities and in the field.

Objective Number 5 – Demonstrate the capability to continuously monitor and control radiation exposure to emergency workers.

Objective Number 14 – Demonstrate the capability and resources to implement potassium iodide (KI) protective actions for emergency workers and institutionalized individuals.

Objective Number 16 – Demonstrate the capability and resources necessary to implement protective actions for school children within the plume pathway emergency planning zone (EPZ).

There were no Areas Requiring Corrective Action, identified during the previous Quad Cities Nuclear Power Station school demonstrations, that required corrective action or subsequent demonstration for reevaluation during this drill. The offsite agencies demonstrated knowledge of their emergency response plans and procedures and adequately implemented them. There were no Deficiencies and no Areas Requiring Corrective Action identified during this drill.

On November 29, 2000, a medical drill was conducted in the plume exposure pathway emergency planning zone (EPZ) around the Quad Cities Nuclear Power Station by the Federal Emergency Management Agency (FEMA), Region VII. The purpose of the medical drill was to assess the ability of offsite agencies in responding to a radiological emergency involving a simulated medical injury to a member of the public with radioactive contamination. This medical drill was held in accordance with FEMA's policies and guidance concerning the exercise of State and local radiological emergency

response plans and procedures. The evaluators for this drill were Norm Valentine and Rex Jennings from FEMA.

The previous medical drill at this site was conducted on November 7, 1998.

FEMA wishes to acknowledge the efforts of the Medic Emergency Medical Service and Genesis Medical Center who participated in this medical drill.

The following objectives, which are part of the 33 standardized objectives contained in FEMA's Exercise Manual (FEMA-REP-14), were demonstrated during the medical drill.

Objective Number 5 - Demonstrate the capability to continuously monitor and control radiation exposure to emergency workers.

Objective Number 14 - Demonstrate the capability and resources to implement potassium iodide (KI) protective actions for emergency workers.

Objective Number 20 - Demonstrate the adequacy of vehicles, equipment, procedures, and personnel for transporting contaminated, injured, or exposed individuals.

Objective Number 21 - Demonstrate the adequacy of the equipment, procedures, supplies, and personnel of medical facilities responsible for treatment of contaminated, injured, or exposed individuals.

There were no Areas Requiring Corrective Action, identified during the previous Quad Cities Nuclear Power Station medical drill, that required corrective action or subsequent demonstration for reevaluation during this drill. The offsite agencies demonstrated knowledge of their emergency response plans and procedures and adequately implemented them. There were no Deficiencies and no Areas Requiring Corrective Action identified during this drill.

II. DRILL EVALUATION AND RESULTS

Contained in this section are the results of evaluation of the offsite agencies, which participated in the November 29, 2000, school and medical drills. The school demonstrations tested the offsite emergency response capabilities to implement protective actions for school children in the event of an incident at the Quad Cities Nuclear Power Station. The medical drill tested the offsite emergency response organizations capabilities involving a simulated medical injury to a member of the public with radioactive contamination in the area surrounding the Quad Cities Nuclear Power Station.

The section provides information on the evaluation of each participating offsite agency, in a jurisdiction based, issues only format. Presented below is a definition of the terms used in this subsection relative to objective demonstration status.

Met - Listing of the demonstrated drill objectives under which no Deficiencies or ARCAs were assessed during the school drills or medical drill, and under which no ARCAs assessed during prior drills remain unresolved.

Deficiency - Listing of the demonstrated drill objectives under which one or more Deficiency(ies) were assessed during the school or medical drills.

Area Requiring Corrective Actions (ARCA) - Listing of the demonstrated drill objectives under which one or more ARCAs were assessed during the current school or medical drills or ARCAs assessed during prior school or medical drills that remain unresolved.

Not Demonstrated - Listing of the drill objectives that were not demonstrated as scheduled during the school or medical drills and the reason they were not demonstrated.

Prior Issues - Resolved - Descriptions of ARCAs assessed during previous exercises or drills that were resolved in this drill and the corrective actions demonstrated.

Prior Issues - Unresolved - Descriptions of ARCAs assessed during previous exercises or drills that were not resolved in this drill.

The following are definitions of the two types of exercise/drill issues that 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/drill 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/drill that is not considered, by itself, to adversely impact public health and safety."

1. SCHOOL

1.1 North Scott School District

The school district has one school located in the emergency planning zone. The school involved in this demonstration was Virgil Grissom Elementary School, located in Princeton, Iowa. The school has approximately 240 students with a staff of 30. Interviews were conducted with the Principal and two bus drivers. Participants were very knowledgeable about their roles and responsibilities during an emergency.

- a. **MET:** Objectives 4, 5, 14, and 16
- b. **DEFICIENCY:** NONE
- c. **AREA REQUIRING CORRECTIVE ACTION:** NONE
- d. **NOT DEMONSTRATED:** NONE
- e. **PRIOR ARCAS - RESOLVED:** NONE
- f. **PRIOR ARCAS – UNRESOLVED:** NONE

2. MEDICAL

2.1 Medic Emergency Medical Service.

The ambulance service is based at Medic Emergency Medical Service, located in Davenport, Iowa. The crew was very professional and knowledgeable about their emergency response functions. They functioned very well as a team.

- a. **MET:** Objectives 5, 14 and 20
- b. **DEFICIENCY:** None
- c. **AREA REQUIRING CORRECTIVE ACTION:** NONE
- d. **NOT DEMONSTRATED:** None
- e. **PRIOR ISSUES - RESOLVED:** None
- f. **PRIOR ISSUES - UNRESOLVED:** None

2.2 Genesis Medical Center.

This facility was evaluated for the first time by Region VII and is located in Davenport, Iowa. The hospital staff was very knowledgeable and thorough regarding contamination control. The entire staff, including security personnel, emergency room personnel, and administration is to be commended for their rapid response and ability to be prepared when the ambulance arrived.

- a. **MET:** Objective 5 and 21
- b. **DEFICIENCY:** None

- c. **AREA REQUIRING CORRECTIVE ACTION: NONE**
- d. **NOT DEMONSTRATED: None**
- e. **PRIOR ISSUES - RESOLVED: None**
- g. **PRIOR ISSUES - UNRESOLVED: None**

III. TABLE OF SUMMARY RESULTS OF DRILL EVALUATIONS

TABLE 1. SUMMARY RESULTS OF EXERCISE EVALUATION

DATE AND SITE: November 29, 2000, Quad Cities Nuclear Power Station

JURISDICTION/LOCATION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	
SCHOOL DISTRICT																																		
North Scott				M	M									M		M																		
MEDICAL																																		
Medic Emergency Medical Service					M									M							M													
Genesis Medical Center					M																	M												

LEGEND: M = Met (No Deficiency or ARCAs assessed) A = ARCA(s) assessed (Not affecting health and safety of public) or prior ARCA not resolved
 D = Deficiency(ies) assessed N = Not Demonstrated as scheduled Blank = Not Scheduled For Demonstration
 A¹ = Exercise Issue Closed During Exercise