



FEMA

December 29, 2003

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 October 22-23, 2003, medical and congregate care drills of the offsite radiological emergency response plans site-specific to the Quad Cities Nuclear Power Station. The state of Iowa and the counties of Clinton and Scott participated during the drills. The report was prepared by the Federal Emergency Management Agency (FEMA) Region VII staff. A copy of the final report will be provided to the state of Iowa.

There were no Deficiencies or Areas Requiring Corrective Action (ARCAs) identified during the drills.

Based on the results of the October 22-23, 2003, drills the offsite radiological emergency response plans and preparedness for the state of Iowa and the affected local jurisdictions, site-specific to the Quad Cities Nuclear Power Station, can be implemented and are adequate to provide reasonable assurance that appropriate measures can be taken offsite to protect the health and safety of the public in the event of a radiological emergency at the site.

If you have questions or concerns regarding the report, please contact Mr. Ronald L. McCabe, RAC Chairman at (816) 283-7007.

Sincerely,

A handwritten signature in black ink, appearing to read "Richard Hainje".

Richard Hainje
Regional Director

Enclosure

cc: Vanessa Quinn & Kenneth Wierman, NP-TH-RP w/o enclosure
Roland Lickus, NRC III w/ enclosure
Eric Weiss, NRC HDQ w/enclosure



Medical and Congregate Care Centers Drill Report

Quad Cities Nuclear Power Station

Licensee: **Exelon Corporation**
Drill Date: **October 22 - 23, 2003**
Report Date: **December 29, 2003**

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

RICHARD HAINJE, REGIONAL DIRECTOR

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I. EXECUTIVE SUMMARY

On October 22, 2003, seven congregate care centers in Clinton County, Iowa and six congregate care centers in Scott County, Iowa were evaluated for their acceptability to support the evacuees around the Quad Cities Nuclear Power Station by the Federal Emergency Management Agency (FEMA), Region VII. The evaluators for this demonstration were Norm Valentine and Joe Schulte from FEMA.

On October 23, 2003, a medical drill was conducted in the plume exposure pathway emergency planning zone (EPZ) around the Quad Cities Nuclear Power Station and evaluated 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 Joe Schulte from FEMA.

There were no Areas Requiring Corrective Action, identified during the previous Quad Cities Nuclear Power Station congregate care drills 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 or Areas Requiring Corrective Action identified during these drills. It is noted that for Scott County, the Salvation Army has responsibility for shelter management; therefore, based on current FEMA policy (April 2002 Federal Register) these facilities will be evaluated once every six years and sooner if there are physical changes to the buildings.

FEMA wishes to acknowledge the efforts of the staffs of the American Red Cross and Salvation Army who participated in the congregate care drill and the staffs of Medic Emergency Medical Service and Trinity Medical Center who participated in this medical drill.

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 or Areas Requiring Corrective Action identified during this medical drill.

II. DRILL EVALUATION AND RESULTS

Contained in this section are the results of evaluation of the offsite agencies, which participated in the October 22-23, 2003, congregate care and medical drills. The congregate care demonstrations tested the offsite emergency response capabilities to implement protective actions for the mass care of evacuees 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 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;
- Radiological Emergency Preparedness Exercise Evaluation Methodology, criteria, September 12, 2001 and April 25, 2002.

This 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 evaluation criteria demonstration status.

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

Deficiency - Listing of the demonstrated drill evaluation criteria under which one or more Deficiency (ies) were assessed during the congregate care or medical drills.

Area Requiring Corrective Actions (ARCA) - Listing of the demonstrated drill evaluation criteria under which one or more ARCAs were assessed during the congregate care or medical drills. Included is a description of the ARCA(s) assessed during these drills and the recommended corrective action to be demonstrated before or during the next biennial exercise.

Not Demonstrated - Listing of the drill evaluation criteria that were not demonstrated as scheduled during the congregate care 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 prior 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 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 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.”

FEMA has developed a standardized system for numbering exercise issues (Deficiencies and ARCAs). This system is used to achieve consistency in numbering exercise issues between 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 three-digit number corresponding to the Utility Billable Plant Site Codes.
- * **Exercise Year** - The four digits of the year the exercise was conducted.
- * **Criterion Number** - A three-digit number corresponding to the criteria numbers in FEMA Exercise Evaluation Areas.
- * **Issue Classification Identifier** - (D = Deficiency, A = ARCA). Only Deficiencies and ARCAs 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. CONGREGATE CARE

1.1 Clinton County Congregate Care Facilities.

The following facilities, located in Clinton County, Iowa, were evaluated by a walk through demonstration: Northeast Elementary School; Delwood Elementary School; Midland Middle

School; Calamus/Wheatland Elementary School; Calamus/Wheatland Junior-Senior High School; Central Middle School; and Central High School. Present for the walk through were representatives from the American Red Cross and Iowa Homeland Security & Emergency Management. The congregate care manager (American Red Cross) was very knowledgeable regarding the use of the facilities and their emergency responsibilities.

- a. **MET: 6c1**
- b. **DEFICIENCIES: NONE**
- c. **AREA REQUIRING CORRECTIVE ACTION: NONE**
- d. **NOT DEMONSTRATED: NONE**
- e. **PRIOR ARCAS - RESOLVED: NONE**
- f. **PRIOR ARCAS – UNRESOLVED: NONE**

1.2 Scott County Congregate Care Facilities.

The following facilities, located in Scott County, Iowa, were evaluated by a walk through demonstration: Andrew Jackson Elementary School; Central High School; North High School; North Scott Senior High School; West High School; and Wood Junior High School. Present for the walk through were representatives from the Salvation Army, Scott County Emergency Management and Exelon Nuclear. The congregate care manager (Salvation Army) was very knowledgeable regarding the use of the facilities and their emergency responsibilities. Sufficient space is available in the Scott County Congregate Care Centers for the number of evacuees anticipated to need temporary shelter (5, 800 for Quad Cities and 11,680 for Duane Arnold). However, the shelter profiles included in the Scott County plan need to be reviewed and revised as necessary to better indicate actual congregate care space available based upon actual space that would be usable in each facility.

- a. **MET: 6c1**
- b. **DEFICIENCIES: 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 in Davenport, Iowa. The ambulance crew demonstrated effective contamination control procedures. They dressed in full anti-contamination suits and were equipped with the appropriate permanent record and self-reading (0-20R and 0-200mR) dosimeters in accordance with the plans. They effectively wrapped the victim, to control the spread of contamination, prior to transport to the medical center. The crew contacted the medical center enroute to report all pertinent information concerning the victim's medical condition and possible contamination. Throughout the drill, the crew demonstrated a high degree of professionalism.

- a. **MET:** 1e1; 3a1; 3b1; 6d1
- 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 Trinity Medical Center.

This facility is located in Moline, Illinois, outside the emergency planning zone. The staff was very knowledgeable and thorough regarding contamination control. The Radiological Emergency Area (REA) was set up rapidly and efficiently. The REA personnel demonstrated effective decontamination procedures for the simulated victim. The entire staff, including security personnel, REA personnel, and administration is to be commended for their professional teamwork.

- a. **MET:** 1e1, 3a1, 6d1
- b. **DEFICIENCY:** NONE

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