



FEMA

January 9, 2014

Ms. Cynthia Pederson
Regional Administrator
U.S. Nuclear Regulatory Commission, Region III
2443 Warrenville Road, Suite 210
Lisle, Illinois 60532

Dear Ms. Pederson:

Enclosed is a copy of the final report for the October 2, 2013, Medical Service Drill of the offsite radiological emergency response plans site-specific to the Quad Cities Nuclear Power Station. The State of Iowa and the County of Clinton participated during the drill. The report was prepared by the Federal Emergency Management Agency (FEMA) Region VII staff. Copies of the final report will be provided to the State of Iowa.

There were no Deficiencies or Areas Requiring Corrective Action (ARCA's) identified. Based on the results of this drill, the offsite radiological emergency response plans and preparedness for the State of Iowa and the affected local jurisdiction, 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. Therefore, the Title 44 CFR, Part 350, approval of the offsite radiological emergency response plans and preparedness for the State of Iowa, site-specific to the Quad Cities Nuclear Power Station, granted on May 20, 1987, will remain in effect.

If you have questions or concerns regarding the report, please contact Mr. Daniel Kanakares at (816) 283-7016.

Sincerely,

A handwritten signature in blue ink that reads "Philip M. Kirk".

Philip M. Kirk
Acting Chair, Regional Assistance Committee (RAC)
Federal Preparedness Coordinator
National Preparedness Division Director
DHS-FEMA Region VII

Enclosure

RECEIVED JAN 23 2014

cc: Vanessa Quinn, FEMA HQ REP w/o enclosure
Lisa Hamilton, FEMA HQ REP w/o enclosure
Gerald De Young, Exelon w/o enclosure
Allan Barker, NRC Region III w/o enclosure



Quad Cities Nuclear Power Station

After Action Report/ Improvement Plan

Drill Date - October 02, 2013

Radiological Emergency Preparedness (REP) Program



FEMA

Published December 19, 2013

Unclassified

Radiological Emergency Preparedness Program (REP)

After Action Report/Improvement Plan

Quad Cities Nuclear Power Station

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Quad Cities Nuclear Power Station After Action Report/Improvement Plan

Published December 19, 2013

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EXECUTIVE SUMMARY

On October 2, 2013 the Federal Emergency Management Agency (FEMA), Region VII, conducted a medical services drill in the plume emergency-planning zone (EPZ) around the Quad Cities Nuclear Power Station. The purpose of the drill was to assess the level of State and local preparedness in responding to a radiological emergency. This 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 previous medical service drill at this site was conducted on August 24, 2011.

FEMA wishes to acknowledge the efforts of the many individuals who participated in this drill. The State of Iowa, Clinton County, Genesis Medical Center DeWitt and the Genesis Medical Center Dewitt Ambulance Services participated in the drill. The efforts of the Exelon Nuclear should also be commended for their work on training and drill preparation.

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. A special thank you is once again extended to those wonderful volunteers. Cooperation and teamwork of all the participants were evident during this drill.

The State and local organizations demonstrated knowledge of their emergency response plans and procedures and adequately implemented them. No deficiencies were identified. There were no Area Requiring Corrective Action (ARCAs) identified as a result of this drill. There were no previous ARCAs to be corrected during this drill.

SECTION 1: EXERCISE OVERVIEW

1.1 Exercise Details

Exercise Name

Quad Cities Nuclear Power Station

Type of Exercise

Drill

Exercise Date

October 02, 2013

Program

Department of Homeland Security/FEMA Radiological Emergency Preparedness Program

Scenario Type

Radiological Emergency

1.2 Exercise Planning Team Leadership

Daniel Kanakares

Site Specialist

FEMA Region VII

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1.3 Participating Organizations

Agencies and organizations of the following jurisdictions participated in the Quad Cities Nuclear Power Station drill:

State Jurisdictions

Iowa Homeland Security and Emergency Management

Risk Jurisdictions

Clinton County Emergency Management Agency

Private Organizations

Genesis Medical Center De Witt

Genesis Medical Center De Witt Ambulance Services

Exelon Nuclear

Federal Jurisdictions

Federal Emergency Management Agency

SECTION 2: EXERCISE DESIGN SUMMARY

2.1 Exercise Purpose and Design

This simulated medical emergency was conducted in order to exercise the pre-hospital and hospital EMS response involving a radioactive plume from Exelon Nuclear Quad Cities Station that was responsible for contaminating an individual who had become injured.

The overall objective was to assess the ability of the Genesis Medical Center Dewitt Ambulance Services to respond, render pre-hospital emergency care, and transport the contaminated injured patient to Genesis Medical Center DeWitt. Subsequently, Genesis Medical Center DeWitt received the contaminated patient into their established REA, rendered medical care, and decontaminated the patient.

The purpose of this drill was to determine the ability of appropriate offsite agencies to respond to an emergency covered by state and local radiological emergency response plans. The scope of the MS-1 drill was limited to demonstrating the ability of local support services to respond to a medical emergency involving a simulated contaminated injured individual.

Pursuant to the Radiological Emergency Preparedness Program Manual, dated June 2013, a medical emergency drill involving a simulated contaminated, injured, or exposed individual, which contains provisions for participation by the local support services, shall be conducted annually. To fulfill this requirement for calendar year 2013, Genesis Medical Center DeWitt and the Genesis Medical Center Dewitt Ambulance Services participated during this drill.

2.2 Exercise Objectives, Capabilities and Activities

Quad Cities Nuclear Power Station (QCNPS) Emergency Preparedness Exercises and Drills are conducted to test and provide the opportunity to evaluate Emergency Plans, associated Implementing Procedures, facilities, and equipment. This drill tested the QCNPS emergency response organization's ability to assess and respond to emergency conditions and coordinate efforts with other agencies for protection of the health and safety of the public.

The Quad Cities Nuclear Power Station (QCNPS), Emergency Preparedness Exercise & Drill Program objectives are based on the Federal requirements delineated in 44 CFR 350, and State of Iowa, Clinton County, and Scott County Radiological Emergency Preparedness plans.

Additional guidance provided in FEMA's Radiological Emergency Preparedness Program Manual, dated June 2013, was utilized in developing these objectives.

The objective of this drill was to test the implementation of the plans and procedures of the participating agencies, and the capability of these agencies to conduct operations in accordance with these plans. This objective is further defined by the criteria evaluated for each participant. These criteria are listed in Table 3.1

The capabilities tested in this drill were related to medical care rendered during a radiological emergency, during which actual or possible radiological contamination required the use of measures above those in non-radiological medical care. Ambulance service and the hospital were evaluated based upon the plans and procedure which they have established for use in a radiological emergency.

2.3 Scenario Summary

The following is an excerpt from the actual scenario used for this drill.

At 12:08 a.m. this morning Quad Cities Nuclear Station declared a General Emergency. A nuclear accident occurred, resulting in a radioactive plume being released from the plant. General area dose rates in the plume have been determined to be approximately 12 mR/hr. Scott and Clinton Counties set up registration centers to receive citizens from the surrounding communities that are in the pathway of the plume. This morning, Scott and Clinton County officials notified all Police/Fire/EMS agencies of the situation. Scott and Clinton County officials have requested all emergency agencies to be prepared to wear personal dosimetry. The plume is expected to be out of the area by 07:05 a.m.

While an individual was evacuating in his private vehicle he noticed he had a flat tire. While the individual was outside fixing the flat tire, a sharp piece of metal became unstable. As the individual attempted to grab the metal, the individual's right wrist was cut. The injured person is in extreme pain in the right wrist area (On a scale of 10: 10/10). The patient has a history of high cholesterol and hypertension.

SECTION 3: ANALYSIS OF CAPABILITIES

3.1 Drill Evaluation and Results

Contained in this section are the results and findings of the evaluation of participants in the October 2, 2013, medical service drill to test the offsite emergency response capabilities of State and local governments in the 10-mile EPZ surrounding the Quad Cities Nuclear Power Station. Each functional entity was evaluated on the basis of its demonstration of criteria contained in exercise evaluation areas delineated in FEMA's Radiological Emergency Preparedness Program Manual, dated June 2013.

3.2 Summary Results of Drill Evaluation

The matrix presented in Table 3.1, on the following page, presents the status of all exercise criteria, which were scheduled for demonstration during this drill, at 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 - Area Requiring Corrective Action (ARCA) assessed or unresolved ARCA(s) from prior exercises)

N - Not Demonstrated (Reason explained in subsection B)

P - Planning Issue

Table 3.1 - Summary of Drill Evaluation

DATE: 2013-10-02 SITE: Quad Cities Nuclear Power Station, IA M: Met, A: ARCA, D: Deficiency, P: Plan Issue, N: Not Demonstrated			Med Ctr - DeWitt	DeWitt Amb.
Emergency Operations Management				
Mobilization	1a1			
Facilities	1b1			
Direction & Control	1c1			
Communications Equipment	1d1			
Equipment and Supplies	1e1	M	M	
Protective Action Decision Making				
EW Exp. Control Decisions	2a1			
PARs	2b1			
PADs	2b2			
PADs for Disabled/Functional Needs	2c1			
Ingestion PADs	2d1			
RRR Decisions	2e1			
Protective Action Implementation				
EW Exp. Control Implementation	3a1	M	M	
KI Public/Institutionalized	3b1			
PAD Imp. Disabled/Functional Needs	3c1			
PAD Imp. Schools	3c2			
TACP Establishment	3d1			
Impediments to Evacuation	3d2			
Implementation of Ingestion PADs	3e1			
Ingestion Strategies and Information	3e2			
Imp. of RRR Decisions	3f1			
Field Measurement and Analysis				
RESERVED	4a1			
Field Team Management	4a2			
Field Team Operations	4a3			
Field Team Sampling	4b1			
Laboratory Operations	4c1			
Emergency Notification and Public Info				
Initial Alert & Notification	5a1			
RESERVED	5a2			
Backup Alert & Notification	5a3			
Exception Area Alerting	5a4			
Subsequent Public Information	5b1			
Support Operations/Facilities				
Reception Center Operations	6a1			
EW Monitoring & Decon	6b1			
Congregate Care	6c1			
Contaminated Injured Transport & Care	6d1	M	M	

3.3 Criteria Evaluation Summaries

3.3.1 Support Jurisdictions

3.3.1.1 Genesis Medical Center - DeWitt

Genesis Medical Center - DeWitt staff demonstrated techniques in cross contamination awareness and patient care. Three criteria were evaluated during the drill and all were demonstrated successfully. Staff were familiar with equipment and utilized step by step job aides.

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

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

3.3.1.2 DeWitt Ambulance Service

The Genesis Medical Center DeWitt Ambulance Services ambulance crew worked well together and displayed professionalism in their patient care. Three criteria were evaluated during the drill and all were demonstrated successfully. A quick reference procedure was available to ambulance personnel included turn-back values, dosimetry and Potassium Iodide (KI) information.

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

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

g. PRIOR ISSUES - UNRESOLVED: None

SECTION 4: CONCLUSION

Based on the results of this drill, the offsite radiological emergency response plans and preparedness for the State of Iowa and the affected local jurisdictions are deemed adequate to provide reasonable assurance that appropriate measures can be taken to protect the health and safety of the public in the event of a radiological emergency. Therefore, 44 CFR Part 350 approval of the offsite radiological emergency response plans and preparedness for the State of Iowa, site-specific to the Quad Cities Nuclear Power Station, will remain in effect.

APPENDIX A: DRILL EVALUATORS AND TEAM LEADERS

DATE: 2013-10-02, SITE: Quad Cities Nuclear Power Station, IA

LOCATION	EVALUATOR	AGENCY
Genesis Medical Center - DeWitt	*Jeff Clark	FEMA RVII
DeWitt Ambulance Service	*Daniel Kanakares	FEMA RVII
* Team Leader		

APPENDIX B: ACRONYMS AND ABBREVIATIONS

Acronym	Meaning
ARCA	Area Requiring Corrective Action
EMS	Emergency Medical Service
EPZ	Emergency Planning Zone
EW	Emergency Workers
FEMA	Federal Emergency Management Agency
KI	Potassium Iodide
QCNPS	Quad Cities Nuclear Power Station
REA	Radiological Emergency Area
REP	Radiological Emergency Preparedness

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