



FEMA

FEB 02 2012

Mr. Mark Schouten, Administrator
Iowa Homeland Security & Emergency Management Division
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Camp Dodge Building W-4
Johnston, Iowa 50131

Dear Mr. Schouten:

During the August 24, 2011, MS-1 drill, no Deficiencies or Areas Requiring Corrective Action (ARCA's) were identified for Genesis Medical Center – DeWitt or the DeWitt Ambulance Services. There was one ARCA from a previous drill to be addressed and it was corrected during this drill.

In addition to the enclosed report, an electronic copy has been forwarded to Ms. Kathy Stodola of your staff, for distribution to other Offsite Response Organizations as you deem appropriate.

If you have any questions or concerns regarding this report, please contact Mr. Ronald L. McCabe, Regional Assistance Committee Chair, at 816-283-7007 or by email ron.mccabe@dhs.gov.

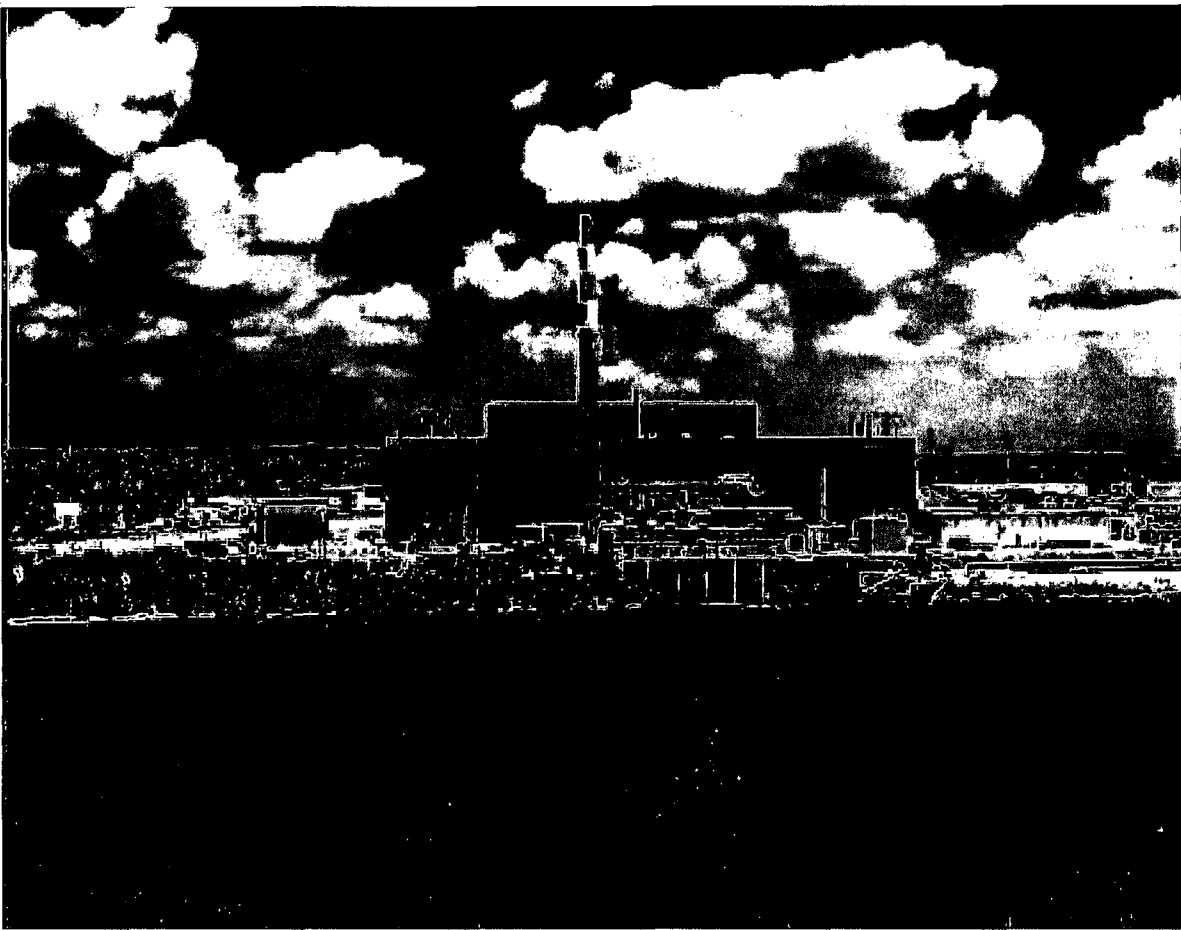
Sincerely,

Beth Freeman
Regional Administrator

Enclosure

cc: Vanessa Quinn, HQ REP w/o enclosure (electronic)
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1449



Quad Cities Nuclear Power Station

After Action Report/ Improvement Plan

Drill Date - August 24, 2011

Radiological Emergency Preparedness (REP) Program



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After Action Report/Improvement Plan

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EXECUTIVE SUMMARY

On August 24, 2011 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 October 6, 2009.

FEMA wishes to acknowledge the efforts of the many individuals who participated in this drill. In the State of Iowa, the Risk County of Clinton participated, along with the Genesis Medical Center - DeWitt and the DeWitt Ambulance Services. The efforts of the utility 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 (ARCA) identified as a result of this drill. There was one Previous ARCA 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

August 24, 2011

Program

Department of Homeland Security/FEMA Radiological Emergency Preparedness Program

Scenario Type

Radiological Emergency

1.2 Exercise Planning Team Leadership

Jeff Clark

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1.3 Participating Organizations

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

Support Jurisdictions

Genesis Medical Center - DeWitt

DeWitt Ambulance Services



SECTION 2: EXERCISE DESIGN SUMMARY

2.1 Exercise Purpose and Design

This simulated Medical emergency was being conducted in order to exercise the pre-hospital and hospital EMS response where a radioactive plume from Exelon Nuclear Quad Cities Station was responsible for contaminating an individual who has 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 Guidance Memorandum MS-1, Medical Services, 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 2011, 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 NUREG-0654, NUREG-0696, and NUREG-0737, 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 2:00 a.m. this morning Quad Cities Nuclear Station declared a General Emergency. A nuclear accident has occurred which has resulted in a radioactive plume being released from the plant. General area dose rates in the plume have been determined to be approximately 21 mR/hr. Clinton County, Iowa has set up a registration center in Northeast High School in Goose Lake, Iowa, 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 08:00 a.m.

An individual subject to evacuation had arrived via his private vehicle at the Registration Center in Eldridge. While riding his motorcycle to the registration center he saw a deer run out in front of him and lost control of his motorcycle. The motorcycle landed on him trapping his right leg under the scalding hot tailpipe. The victim struggled out from under his motorcycle but not before receiving 3rd, 2nd and 1st degree burns on the lower right leg. When he arrived at the registration center he got off his motorcycle and staggered into the center. The injured person is in extreme pain in the right leg (On a scale of 10: 10/10). The patient has a history of high cholesterol and hypertension. The patient is currently on Zocor and Hydrochlorthiazide and is

allergic to Motrin, Codeine and Latex.

The patient is sitting on a chair and a Fireman who is part of the Registration Center Staff is trying to cool the wound and stop the burning. The Fireman is keeping the patient calm and reassuring the patient that assistance is on the way. The patient was surveyed at the Registration Center and contamination was found at the left base of the neck and the chest area of his shirt.



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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 August 24, 2011, 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 Emergency Preparedness: Exercise Evaluation Methodology as printed in the Federal Register September 12, 2001 and April 25, 2002.

3.2 Summary Results of Drill Evaluation

The matrix presented in Table 2, 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)



Table 3.1 - Summary of Drill Evaluation

DATE: 2011-08-24 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 and Control	1c1		
Communications Equipment	1d1		
Equip & Supplies to support operations	1e1	M	M
Protective Action Decision Making			
Emergency Worker Exposure Control	2a1		
Radiological Assessment and PARs	2b1		
Decisions for the Plume Phase -PADs	2b2		
PADs for protection of special populations	2c1		
Rad Assessment and Decision making for the Ingestion Exposure Pathway	2d1		
Rad Assessment and Decision making concerning Relocation, Reentry, and Return	2e1		
Protective Action Implementation			
Implementation of emergency worker exposure control	3a1	M	M
Implementation of KI decision	3b1		M
Implementation of protective actions for special populations - EOCs	3c1		
Implementation of protective actions for Schools	3c2		
Implementation of traffic and access control	3d1		
Impediments to evacuation are identified and resolved	3d2		
Implementation of ingestion pathway decisions - availability/use of info	3e1		
Materials for Ingestion Pathway PADs are available	3e2		
Implementation of relocation, re-entry, and return decisions.	3f1		
Field Measurement and Analysis			
Adequate Equipment for Plume Phase Field Measurements	4a1		
Field Teams obtain sufficient information	4a2		
Field Teams Manage Sample Collection Appropriately	4a3		
Post plume phase field measurements and sampling	4b1		
Laboratory operations	4c1		
Emergency Notification and Public Info			
Activation of the prompt alert and notification system	5a1		
Activation of the prompt alert and notification system - Fast Breaker	5a2		
Activation of the prompt alert and notification system - Exception areas	5a3		
Emergency information and instructions for the public and the media	5b1		
Support Operations/Facilities			
Mon / decon of evacuees and emergency workers, and registration of evacuees	6a1		
Mon / decon of emergency worker equipment	6b1		
Temporary care of evacuees	6c1		
Transportation and treatment of contaminated injured individuals	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 outstanding techniques in cross contamination awareness and patient care. Staff were familiar with equipment and utilized step by step job aides. All criteria were adequately demonstrated. A previous ARCA was successfully corrected.

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: 6.d.1.

ISSUE NO.: 51-09-6d1-A-01

ISSUE: The radiological survey team was not familiar with the survey equipment and failed to adequately perform operations check on the Ludlum survey meters. Radiological Monitoring staff did not adequately determine background radiation levels in the emergency room area. Radiological monitoring staff could not provide correct readings from the radiation survey instrument.

CORRECTIVE ACTION DEMONSTRATED: Hospital staff utilized two Ludlum Model 3 survey meters. Survey monitoring team staff demonstrated getting the meters ready and successfully performed source checks on each meter and each were found to be within scale limits affixed to the side of the instruments. Pancake probes were wrapped in plastic to prevent contamination.

Background checks were conducted adequately in both the hallway and in the emergency room. Background was determined to be 50cpm in the emergency room,

this was placed on signage added with a figure of 350cpm to reflect a contamination level of 400cpm.

Monitoring staff were very knowledgeable in the survey meter, meter readings and survey techniques.

Based on the above actions, this ARCA is considered closed.

g. PRIOR ISSUES - UNRESOLVED: None

3.3.1.2 DeWitt Ambulance Service

The DeWitt Ambulance Service crew worked well together and displayed professionalism in their patient care. Four Criteria were evaluated during the drill and all were demonstrated successfully. A quick reference procedure is to be made available to ambulance personnel to include 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, 3.b.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 these drills, 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.



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APPENDIX A: DRILL EVALUATORS AND TEAM LEADERS

DATE: 2011-08-24, SITE: Quad Cities Nuclear Power Station, IA

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



APPENDIX B: ACRONYMS AND ABBREVIATIONS

Acronym	Meaning
ARCA	Area Requiring Corrective Action
CPM	Counts Per Minute
EMS	Emergency Medical Services
EPZ	Emergency Planning Zone
FEMA	Federal Emergency Management Agency
MS	Medical Services
NRC	Nuclear Regulatory Commission
QCNPS	Quad Cities Nuclear Power Station
RAC	Regional Assistance Committee
REA	Radiological Emergency Area
REP	Radiological Emergency Preparedness



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