



Fort Calhoun Nuclear Station

After Action Report/ Improvement Plan

Exercise Date - August 04, 2015

Radiological Emergency Preparedness (REP) Program



FEMA

Published November 2, 2015

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EXECUTIVE SUMMARY

On August 4, 2015, the Department of Homeland Security (DHS)/Federal Emergency Management Agency (FEMA) Region VII, conducted an exercise in the exposure pathway emergency planning zone (EPZ) around the Fort Calhoun Nuclear Station. The purpose of the exercise was to assess the level of State and local preparedness in responding to a Hostile Action Based (HAB) emergency. The exercise was held in accordance with FEMA's policies and guidance concerning the exercise of State and local radiological emergency response plans and procedures. In addition, out of sequence drills were conducted on June 24, 2015.

The previous plume exercise at this site was conducted on December 3, 2013. The qualifying emergency preparedness exercise was conducted on December 22, 1981.

FEMA wishes to acknowledge the efforts of the many individuals who participated in this exercise. In the State of Nebraska, the State government and the counties of Washington and Douglas participated. In the State of Iowa, the counties of Harrison and Pottawattamie participated along with the State government. The efforts of the utility should also be commended for their work on the scenario development and exercise preparation.

Protecting the public health and safety is the full-time job of some of the exercise participants and a collateral duty for others. Still, others have willingly sought this responsibility by volunteering to provide vital emergency services to their communities. Cooperation and team work of all the participants were evident during this exercise. A special thank you is once again extended to those critical volunteers.

This report contains the 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. No Level One findings (formerly known as Deficiencies) were identified. One Level Two finding (formerly known as Area Requiring Corrective Action (ARCA)) was identified and was corrected after additional training and re-demonstration and is now closed as a result of this exercise. There were no open ARCAs or Deficiencies from the previous Fort Calhoun Nuclear Station exercise, to be corrected. There was one Plan Issue identified during this exercise.

The final protective action decision (PAD) for Nebraska during the emergency phase was the sheltering of 0-2 miles radius from the plant. The Nebraska area impacted is located between the cities of Blair and Fort Calhoun, with approximately 517 residents in Nebraska affected by the sheltering. The final PAD for Iowa during the emergency phase was a sheltering of subareas 10 and 11. Approximately 191 residents in Iowa were affected by the sheltering.

SECTION 1: EXERCISE OVERVIEW

1.1 Exercise Details

Exercise Name

Fort Calhoun Nuclear Station

Type of Exercise

Hostile Action Based (HAB)

Exercise Date

August 04, 2015

Program

Department of Homeland Security/FEMA Radiological Emergency Preparedness Program

Scenario Type

Radiological Emergency

1.2 Exercise Planning Team Leadership

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1.3 Participating Organizations

Agencies and organizations of the following jurisdictions participated in the Fort Calhoun Nuclear Station exercise:

State Jurisdictions

- Nebraska Emergency Management Agency
- Nebraska Department of Health and Human Services
- Nebraska State Patrol
- Iowa Homeland Security and Emergency Management
- Iowa State Patrol
- Iowa Department of Transportation
- Iowa Motor Vehicle Enforcement
- Iowa Department of Public Health

Risk Jurisdictions

- Blair Community Schools
- Blair EMS
- Blair Fire Department
- Blair Mayor's Office
- Blair Police Department
- Council Bluffs Ambulance
- Council Bluffs Fire Department
- Fort Calhoun Fire & Rescue
- Harrison County 911 Dispatch Center
- Harrison County Board of Supervisors
- Harrison County Emergency Management
- Harrison County Engineering and Secondary Roads
- Harrison County Human Services
- Harrison County Public Health
- Harrison County Sheriff's Office
- Missouri Valley School District
- Omaha Police Department

Pottawattamie County Auditor
Pottawattamie County Buildings and Grounds Department
Pottawattamie County Conservation
Pottawattamie County Emergency Management
Pottawattamie County Engineers Office
Pottawattamie County Geographical Information Systems
Pottawattamie County Information Technology
Pottawattamie County Public Health/VNA
Pottawattamie County Sheriff's Office
Region 5-6 Office of Emergency Management
Washington County Board of Supervisors
Washington County Emergency Management
Washington County Sheriff's Office

Support Jurisdictions

Crescent Fire
Douglas County Emergency Management
Montgomery County Emergency Management Agency
Kennard EMS
Mills County Emergency Management Agency
Sarpy County Emergency Management
Sarpy County Sheriff's Department

Private Organizations

American Red Cross
Omaha Public Power District (OPPD)

Federal Jurisdictions

Federal Bureau of Investigation (FBI)
National Weather Service
U.S. Dept. of Homeland Security, Federal Emergency Management Agency
U.S. Nuclear Regulatory Commission

SECTION 2: EXERCISE DESIGN SUMMARY

2.1 Exercise Purpose and Design

The Fort Calhoun Nuclear Station (FCNS) Emergency Plan describes FCNS's capability to respond effectively to a radiological emergency at the site, and provides a detailed description of FCNS's interaction with Federal, State, and local government agencies and private organizations. The Emergency Plan provides for continuous emergency preparedness including the conduct of an annual exercise and preparatory drills.

The purpose of this exercise was to activate and evaluate portions of the State and local offsite response organizations' emergency plans and associated implementing procedures, in accordance with 44 CFR 350. The conduct and evaluation of this exercise provided additional training for emergency response organization personnel and a means to further enhance FCNS emergency response capability.

The Scenario was designed to provide the basis for the conduct of a simulated hostile action based incident at the FCNS, located near Blair, Nebraska, through which the capabilities and effectiveness of the emergency response plans for FCNS, the states of Nebraska and Iowa, and the counties of Washington, Harrison and Pottawattamie could be demonstrated. The scenario was used by the exercise controllers and evaluators as the control mechanism for conducting the exercise.

The scenario was developed by FCNS Emergency Planning staff. It was initially reviewed by a subject matter expert at FEMA Headquarters prior to final review and approval by FEMA Region VII.

2.2 Exercise Objectives, Capabilities and Activities

The Fort Calhoun Nuclear Station (FCNS) exercises and drills are conducted to test and provide the opportunity to evaluate emergency plans, associated implementing procedures, facilities, and equipment. This exercise tested the FCNS offsite response organizations' ability to assess and respond to emergency conditions as well as coordinate efforts with other agencies for protection of the health and safety of the public.

The scenario, as driven by the FCNS Control Room Simulator, depicted a simulated sequence of

events that resulted in escalating conditions of sufficient magnitude to warrant mobilization of State and local agencies to respond to the simulated emergency. Whenever practical, the exercise incorporated provisions for “free play” on the part of the participants.

The FCNS Emergency Preparedness Exercise & Drill Program objectives are based on the Federal requirements delineated in 44 CFR 350, as well as on the priorities and procedures detailed in the Radiological Emergency Preparedness plans for the State of Nebraska; the State of Iowa; Washington County in Nebraska; and Pottawattamie and Harrison Counties in Iowa. Additional guidance, provided in NUREG-0654, NUREG-0696, and NUREG-0737, was utilized in developing these objectives.

This Exercise included participation by the States of Nebraska and Iowa, and Washington County in Nebraska, and Harrison and Pottawattamie Counties in Iowa. A summary of the specific areas evaluated for all the participating organizations are listed in Table 3.1.

The overall objective of the exercise was to evaluate the integrated capability of major portions of the elements existing within the onsite and offsite emergency plans and emergency response organizations.

In addition to the HAB exercise, drills were performed out-of-sequence, which is not concurrent to a HAB exercise, nor synchronized in time with other sites. To compensate for the artificiality of an out-of-sequence drill, the activities for each evaluation included an allowance for simulation. This allowed for the evaluators to focus on the activities specified in the drill criteria.

2.3 Scenario Summary

The following is the scenario provided by Fort Calhoun Nuclear Station (FCNS) and approved by Department of Homeland Security/FEMA for use during the August 4, 2015 HAB exercise.

INITIAL CONDITIONS

(For ERO Staffing Purposes this is an OPPD Company HOLIDAY)

Weather Conditions

Moderate winds out of the West, temperatures are currently about 65°F.

System Load

The OPPD transmission system is normal.

FCNS Plant Conditions

- Spent Fuel Pool time to 200 degrees - 43 hours
- Online Risk Green - 63 days on-line
- Unit 1 at 502 MWe
- Equipment OOS – None
- Major evolutions scheduled – None

Timeline of Events

ALERT

0745 - 0751

ALERT (HA4) - HOSTILE ACTION within the OWNER CONTROLLED AREA or airborne attack threat

Hostile Action in the Owner Controlled Area 0750

Indications in Control Room of a loss of line 345 KV

Report from Security Shift Supervisor (SSS) that BBREs F 4/5/6 saw what appeared to be some sort of rocket that was shot into the switch yard from the woods from the north of site.

[T=0 for ALERT] [0 adversaries in OCA]

Hostile Update 0755

Report from SSS that multiple BBREs are reporting they have observed multiple rockets impacting in and around the switch-yard. BBREs on the north side of the site report 8 armed adversaries running towards the Protected Area (PA) fence.

SITE AREA EMERGENCY - 0815 - 0845

SITE AREA EMERGENCY (HS4) - HOSTILE ACTION within the PROTECTED AREA.

Security reports 6 adversaries neutralized while entering the PA. 2 adversaries have breached the PA fence and moving through the Protected Area.

[T=0 for SAE]

Adversary Update / Equipment Issues - 0815 - 0835

From the SSS, the Officer on the north side of site reports he has been shot in lower leg. Minimal bleeding, but he cannot walk.

SSS reports that 2 armed adversaries have entered the Service Building and are moving towards the plant. The adversaries have been seen dropping devices as they are running. Some of the devices have exploded.

Security reports two zodiac boats with 6 adversaries heading towards the intake structure.

Security reports 3 adversaries neutralized and 3 have entered the intake structure

[5 adversaries remain in PA]

Any attempts to dispatch local operators will be met with NO Response (personnel terminated).

GENERAL EMERGENCY - 0845 - 1230

GENERAL EMERGENCY (HG1) – HOSTILE ACTION resulting in loss of physical control of the facility.

Indications in Control Room that sluice gates are going closed. (Adversaries have overridden the sluice gate controls). Attempts to reopen are unsuccessful (when sluice gates are closed)

[T=0 for GE]

Adversary Update / Equipment Issue - 0858 - 1230

Two armed adversaries exited the intake structure and were neutralized. One adversary threw his back pack in the roadway. The other is still wearing his backpack.

Security reports multiple small explosions are seen and heard in Service Building and power block.

Indications of FW-6 stopped.

Security reports that one adversary was neutralized on the (FIRST LEVEL of TB). A second armed adversary is in the plant and located in Room 20 Mechanical Penetration Room.

Alternative Facility Team Dispatch 0845-1230

ALTERNATIVE Facility should prioritize and coordinate: A team is onsite to fix Sluice gates. (This team identified one neutralized adversary and one neutralized officer).

Team onsite to retrieve injured officer.

Team onsite to fix FW-6.

Team to restore potable water to at least one Air Compressor.

Team to restore instrument bus.

Adversary Update - 1215

Control Message (CM-27) will be delivered to CAS/SAS – Security reports adversary status - (ALL KNOWN) adversaries terminated (One adversary in Room 20 has been neutralized) [0 adversaries remain in PA]

EXERCISE TERMINATION - 1230

SECTION 3: ANALYSIS OF CAPABILITIES

3.1 Exercise Evaluation and Results

Contained in this section are the results and findings of the evaluation of all jurisdictions and functional entities that participated in the full-scale HAB exercise held on August 4, 2015 to test the offsite emergency response capabilities of State and local governments in the 10-mile plume EPZ surrounding the Fort Calhoun Nuclear Station.

Each jurisdiction and functional entity was evaluated on the basis of its demonstration of the criteria contained in the Radiological Emergency Preparedness Program Manual, dated January 2015.

3.2 Summary Results of Exercise Evaluation

The matrix presented in Table 3.1 presents the status of all exercise criteria, which were scheduled for demonstration during this exercise, 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 Level-1 or Level- 2 Findings assessed and no unresolved Level 2 Findings from prior exercises)

D – Level- 1 Finding - (Previously known as Deficiency) assessed

A – Level- 2 Finding - (Previously known as Area(s) Requiring Corrective Action (ARCA)) assessed and or unresolved ARCA(s) from prior exercise(s)

P - Plan Issue

N - Not Demonstrated

Table 3.1 - Summary of Exercise Evaluation

<p style="text-align: center;">DATE: 2015-08-04 SITE: Fort Calhoun Nuclear Station, NE M: Met, A: Level-2, D: Level-1, P: Plan Issue, N: Not Demonstrated</p>		IA Joint Info. Ctr	Harrison Cty EOC/FCP	Pott. County EOC	Council Bluffs Amb.	Nebraska JIC	NWS	Wash. Cty EOC	FC Fire/ Rescue	FCNS ICP	FCNS FSA
Emergency Operations Management											
Mobilization	1a1		M	M				M		M	M
Facilities	1b1		M	M				M			
Direction & Control	1c1		M	M				M		M	M
Communications Equipment	1d1		M	M				M		M	M
Equipment and Supplies	1e1		M	M	M			M	M	M	M
Protective Action Decision Making											
EW Exp. Control Decisions	2a1		M	M				M			
PARs	2b1										
PADs	2b2		M	M				M		M	
PADs for Disabled/Functional Needs	2c1		M	M				M			
Ingestion PADs	2d1										
RRR Decisions	2e1										
Protective Action Implementation											
EW Exp. Control Implementation	3a1		M	M	M			M	M	M	M
KI Public/Institutionalized	3b1		M	M				M			
PAD Imp. Disabled/Functional Needs	3c1										
PAD Imp. Schools	3c2										
TACP Establishment	3d1		M	M				M			
Impediments to Evacuation	3d2		M	M				M			
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		M	M			M	M			
RESERVED	5a2										
Backup Alert & Notification	5a3										
Exception Area Alerting	5a4										
Subsequent Public Information	5b1	M	M	M		M		P		M	
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 Iowa Jurisdictions

3.3.1.1 Iowa Joint Information Center

Both public information officers (PIOs) were well trained. The Iowa Spokesperson in particular did an excellent job of calmly and clearly providing information regarding the HAB event at FCNS.

The use of a bridge line telephone aided the PIOs in quick communication and coordination with impacted counties, the incident command post, and the state emergency operations center. This was particularly helpful for the PIOs as the JIC usually activates later in the emergency.

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

- a. MET: 5.b.1.
- b. LEVEL- 2 FINDINGS: None
- c. LEVEL- 1 FINDINGS: None
- d. PLAN ISSUES: None
- e. NOT DEMONSTRATED: None
- f. PRIOR ISSUES - RESOLVED: None
- g. PRIOR ISSUES - UNRESOLVED: None

3.3.2 Risk Jurisdictions

3.3.2.1 Harrison County EOC/Forward Command Post

Outstanding visual aids were available and displayed throughout the EOC, including large relevant maps and charts. Great teamwork was demonstrated by the EOC staff, especially considering many were first time REP exercise participants.

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

- a. MET: 1.a.1, 1.b.1, 1.c.1, 1.d.1, 1.e.1, 2.a.1, 2.b.2, 2.c.1, 3.a.1, 3.b.1, 3.d.1, 3.d.2, 5.a.1, 5.b.1.

-
- b. LEVEL- 2 FINDINGS: None
 - c. LEVEL- 1 FINDINGS: None
 - d. PLAN ISSUES: None
 - e. NOT DEMONSTRATED: None
 - f. PRIOR ISSUES - RESOLVED: None
 - g. PRIOR ISSUES - UNRESOLVED: None

3.3.2.2 Pottawattamie County EOC

The EOC staff worked well together during the exercise despite having many new staff members. They accomplished their tasks in a timely manner with coordination and collaboration.

The Emergency Operations Center was equipped with a lot of technology tools that allowed for efficient operations. The accountability software system was very innovative and was the first time any of the evaluators had observed that technology.

The Emergency Management Director provided an excellent Radiological Briefing to the Emergency Workers. He was very knowledgeable of the types of radiation, exposure, and exposure control measures.

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

- a. MET: 1.a.1, 1.b.1, 1.c.1, 1.d.1, 1.e.1, 2.a.1, 2.b.2, 2.c.1, 3.a.1, 3.b.1, 3.d.1, 3.d.2, 5.a.1, 5.b.1.
- b. LEVEL- 2 FINDINGS: None
- c. LEVEL- 1 FINDINGS: None
- d. PLAN ISSUES: None
- e. NOT DEMONSTRATED: None
- f. PRIOR ISSUES - RESOLVED: None
- g. PRIOR ISSUES - UNRESOLVED: None

3.3.3 Support Jurisdictions

3.3.3.1 Council Bluffs Ambulance

The Council Bluffs Ambulance Crew demonstrated effective contamination control procedures. An excellent radiological briefing was provided to the crew prior to their dispatch.

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. LEVEL- 2 FINDINGS: None
- c. LEVEL- 1 FINDINGS: None
- d. PLAN ISSUES: None
- e. NOT DEMONSTRATED: None
- f. PRIOR ISSUES - RESOLVED: None
- g. PRIOR ISSUES - UNRESOLVED: None

3.3.4 Nebraska Jurisdictions

3.3.4.1 Nebraska Joint Information Center

A new form was developed for a HAB event, “State of Nebraska Incident Command Post Media Briefing Form”. The form is used for aiding the Public Information Officers (PIOs) in the Joint Information Center (JIC) with what information law enforcement officials approve for release to the public/media. The additional form is an extremely helpful tool for PIOs when a law enforcement PIO is unavailable for the JIC.

The presence of the Nebraska State Patrol Public Information Officer was a great addition to the JIC staff for a HAB incident. The officer was able to quickly provide the JIC with information on the HAB events as well as lend his credibility to the media that a HAB event was being handled appropriately.

The Nebraska press release had one of the better descriptions of the “shelter” order for a HAB event. The instructions were very clear.

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

- a. MET: 5.b.1.

-
- b. LEVEL- 2 FINDINGS: None
 - c. LEVEL- 1 FINDINGS: None
 - d. PLAN ISSUES: None
 - e. NOT DEMONSTRATED: None
 - f. PRIOR ISSUES - RESOLVED: None
 - g. PRIOR ISSUES - UNRESOLVED: None

3.3.5 Risk Jurisdictions

3.3.5.1 Washington County Emergency Operations Center

The Washington County Deputy Sheriff was instrumental in providing support via law enforcement mutual aid to the Incident Command Post (ICP). The Washington County Deputy Sheriff requested support from the Omaha Police Department and the Nebraska State Patrol.

The Washington County Board Chairman participated in the exercise response in the event that a request for a local State of Emergency was requested and to provide support to the Washington County Emergency Management Director (EMD) from the City of Blair Departments.

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

- a. MET: 1.a.1, 1.b.1, 1.c.1, 1.d.1, 1.e.1, 2.a.1, 2.b.2, 2.c.1, 3.a.1, 3.b.1, 3.d.1, 3.d.2, 5.a.1.
- b. LEVEL- 2 FINDING: 1.c.1.

ISSUE NO.: 25-15-1c1-A-01

CRITERION: 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.

CONDITION: The Washington County Emergency Operations Center (EOC) sent out a message over their Everbridge Notification System to recommend that residents within five miles of Fort Calhoun Nuclear Station shelter in place, based on the default protective action recommendations from the utility. However, the Nebraska Governor's Authorized Representative (GAR), following consultation with the Nebraska Department of Health and Human Services (DHHS) Radiological Health Manager and the Incident Commander (IC), made the Protective Action

Recommendation (PAR) for residents within two miles of the Fort Calhoun Nuclear Station to shelter in place.

POSSIBLE CAUSE: Some confusion may have occurred between the Washington County Emergency Operations Center, the GAR, and the IC as to whether the area to be sheltered was out to two miles or out to five miles.

REFERENCE: NUREG0654/FEMAREP-1, A.1.d; A.2.a, b; A.3; C.4, 6

EFFECT: Residents within the affected areas might be confused by the conflicting information sent out over Everbridge by Washington County and through press releases from the State of Nebraska. This confusion may have caused some members of the public to be unclear as to whether they needed to take any protective actions.

LEVEL- 2 FINDING DEMONSTRATED: The discrepancy between the two mile and five mile decisions was later identified, and the Washington County EMD directed his staff to send the revised information (0-2 miles shelter) over the Everbridge System. This issue is corrected and considered closed.

- c. LEVEL- 1 FINDINGS: None
- d. PLAN ISSUES: 5.b.1.

ISSUE NO.: 25-15-5b1-P-02

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

CONDITION: The public within two miles of the plant was initially only informed of the precautionary actions, to stay away from Fort Calhoun Nuclear Station and stay inside with doors locked, through the Everbridge notification system. There was not a timely press release or Emergency Alert System (EAS) message provided to the public for these initial precautionary actions.

POSSIBLE CAUSE: The responsibility for this function was stated as the Washington County Public Information Officer, who was not located in the Emergency Operations Center. The Everbridge system was used as the sole information source for public notification for Washington County prior to Joint Information Center activation.

REFERENCE: NUREG 0654/FEMA REP-1, Planning Standard E, Criterion E-5, 7. Nebraska RERP, Annex M, Rev. 1, April 2015.

EFFECT: The use of only the Everbridge system did not ensure the widest dissemination of this information possible for individuals within the Emergency Planning Zone.

RECOMMENDATION: Prior to JIC activation, provide timely County press releases or EAS messages for public information transmission in addition to the Everbridge notification system. The plans require clarification to indicate whether this will be done through the Nebraska State Emergency Operations Center or Washington County dispatch prior to County EOC and JIC activation.

- e. NOT DEMONSTRATED: None
- f. PRIOR ISSUES - RESOLVED: None
- g. PRIOR ISSUES - UNRESOLVED: None

3.3.5.2 Fort Calhoun Fire and Rescue

The crew demonstrated effective contamination control procedures.

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. LEVEL- 2 FINDINGS: None
- c. LEVEL- 1 FINDINGS: None
- d. PLAN ISSUES: None
- e. NOT DEMONSTRATED: None
- f. PRIOR ISSUES - RESOLVED: None
- g. PRIOR ISSUES - UNRESOLVED: None

3.3.5.3 FCNS Incident Command Post (ICP)

The Incident Commander provided excellent command and control of the resources for the HAB exercise. The Nebraska Emergency Management Agency (NEMA) Liaisons served an effective role in enhancing communications and information sharing between the ICP, the Governor's Authorized Representative (GAR) and the Joint Information Center.

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

- a. MET: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 2.b.2, 3.a.1, 5.b.1.
- b. LEVEL- 2 FINDINGS: None
- c. LEVEL- 1 FINDINGS: None
- d. PLAN ISSUES: None
- e. NOT DEMONSTRATED: None
- f. PRIOR ISSUES - RESOLVED: None
- g. PRIOR ISSUES - UNRESOLVED: None

3.3.5.4 FCNS Forward Staging Area

There were three positions staffed at the FCNS Forward Staging Area (Staging Manager, Liaison Officer, and Radiological Officer). All three worked together to ensure that all emergency workers were signed in and directed to the Incident Command Post. The Radiological Officer demonstrated a thorough knowledge of dosimetry, was well organized, and provided effective briefings to those Emergency Workers that were issued dosimetry and potassium iodide (KI).

Great communication was maintained via radio between the FCNS Staging Area, Incident Commander and the Washington County Emergency Operations Center.

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

- a. MET: 1.a.1, 1.c.1, 1.d.1, 1.e.1, 3.a.1.
- b. LEVEL- 2 FINDINGS: None
- c. LEVEL- 1 FINDINGS: None
- d. PLAN ISSUES: None
- e. NOT DEMONSTRATED: None
- f. PRIOR ISSUES - RESOLVED: None

- g. PRIOR ISSUES - UNRESOLVED: None

3.3.6 Federal Jurisdictions

3.3.6.1 National Weather Service, Valley, Nebraska

The National Weather Service (NWS) crew demonstrated good teamwork. The Meteorologists at the Operations Center worked well together. Additionally, the Meteorologist on duty communicated effectively with the Warning Coordinator/Meteorologist positioned at the Nebraska State EOC throughout the exercise.

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

- a. MET: 5.a.1.
- b. LEVEL- 2 FINDINGS: None
- c. LEVEL- 1 FINDINGS: 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 exercise and out of sequence drills, the offsite radiological emergency response plans and preparedness for the states of Nebraska and Iowa and the affected local jurisdictions, site-specific to the Fort Calhoun Nuclear Station, 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 hostile action based (HAB) event at the site. Therefore, the Title 44 CFR, Part 350, approval of the offsite radiological emergency response plans and preparedness for the states of Nebraska and Iowa, site-specific to the Fort Calhoun Nuclear Station, granted on December 17, 1984 and May 20, 1987, respectively, will remain in effect.

APPENDIX A: IMPROVEMENT PLAN

Issue Number: 25-15-5b1-P-02		Criterion: 5b1
<p>ISSUE: The public within two miles of the plant was initially only informed of the precautionary actions, to stay away from Fort Calhoun Nuclear Station and stay inside with doors locked, through the Everbridge notification system. There was not a timely press release or Emergency Alert System (EAS) message provided to the public for these initial precautionary actions.</p>		
<p>RECOMMENDATION: Prior to JIC activation, provide timely County press releases or EAS messages for public information transmission in addition to the Everbridge notification system. The plans require clarification to indicate whether this will be done through the Nebraska State Emergency Operations Center or Washington County dispatch prior to County EOC and JIC activation.</p>		
<p>CORRECTIVE ACTION DESCRIPTION: The Nebraska Emergency Management Agency (NEMA) has agreed to work with the Washington County Emergency Management Director to define the process Washington County intends to use and submit language for appropriate revisions to the plans and procedures.</p>		
<p>CAPABILITY: revise plans/procedures to incorporate revisions</p>		<p>PRIMARY RESPONSIBLE AGENCY: Washington County Emergency Management Agency</p>
<p>CAPABILITY ELEMENT: Plans/Procedures</p>		<p>START DATE: November 5, 2015</p>
<p>AGENCY POC:</p>		<p>ESTIMATED COMPLETION DATE: May 5, 2016</p>

APPENDIX B: EXERCISE TIMELINE

Table 1, on the following pages, presents the times recorded for various activities and decisions at each of the evaluated locations during the Fort Calhoun Nuclear Station exercise held on August 4, 2015. A disparity in times is normal given the need for message transmissions and decision-making at the various locales.

Table 1 - Exercise Timeline
DATE: 2015-08-04, SITE: Fort Calhoun Nuclear Station, NE

Emergency Classification Level or Event	Time Utility Declared	IA Joint Info. Ctr	Harrison Cty EOC/FCP	Pott. County EOC	Nebraska JIC	NWS	Wash. Cty EOC
Unusual Event	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alert	0834	0855	0842	0842	0849	0849	0846
Site Area Emergency	0857	0929	0902	0902	0911	0909	0905
General Emergency	0934	0947	0939	0939	0947	0947	0944
Simulated Rad. Release Started	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Simulated Rad. Release Terminated	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Facility Declared Operational		0929	0930	0930	0929		0852
Declaration of State of Emergency		1025		0915	0954		0906
Siren Activation (At SAE)			0915	0915			0911
EAS Message (At SAE)			0920	0920		0920	0920
Early Precautionary Action: Schools		0945	0927				0924
Siren Activation (At GE)			0956	0956			1003
EAS Message (At GE)						1001	
Early Precautionary Actions (Air, Rail & State Parks Closure		1025					
Protective Action Decision Shelter 0-2 Miles (NE) and Shelter Sub Areas 10 & 11 (IA)			1005	1005			1003
Siren Activation Shelter 0-2 Miles (NE) Shelter Sub Area 10 & 11 (IA)			1022	1022			1003
EAS for Shelter 0-2 Miles (NE) Shelter Sub Area 10 & 11 (IA)						1027	
Press Release Shelter 0-2 Miles (NE) Shelter Sub Area 10 & 11 (IA)		1025			1000		
Exercise Terminated		1334	1320	1320	1334		1318

Table 1 - Exercise Timeline

DATE: 2015-08-04, SITE: Fort Calhoun Nuclear Station,
NE

Emergency Classification Level or Event	Time Utility Declared	FCNS ICP	FCNS FSA
Unusual Event	N/A	N/A	N/A
Alert	0834	0848	0906
Site Area Emergency	0857	0907	N/A
General Emergency	0934	0944	0946
Simulated Rad. Release Started	N/A	N/A	N/A
Simulated Rad. Release Terminated	N/A	N/A	N/A
Facility Declared Operational		0820	0906
Declaration of State of Emergency		N/A	N/A
Siren Activation (At SAE)			
EAS Message (At SAE)			
Early Precautionary Action: Schools		0858	
Siren Activation (At GE)			
EAS Message (At GE)			
Early Precautionary Actions (Air, Rail & State Parks Closure		1025	
Protective Action Decision Shelter 0-2 Miles (NE) and Shelter Sub Areas 10 & 11 (IA)			
Siren Activation Shelter 0-2 Miles (NE) Shelter Sub Area 10 & 11 (IA)			
EAS for Shelter 0-2 Miles (NE) Shelter Sub Area 10 & 11 (IA)			
Press Release Shelter 0-2 Miles (NE) Shelter Sub Area 10 & 11 (IA)			
Exercise Terminated		1318	1318

APPENDIX C: EXERCISE EVALUATORS AND TEAM LEADERS

The evaluation team for this exercise and out-of-sequence drills consisted of DHS/FEMA Radiological Emergency Preparedness Program (REPP) personnel, Regional Assistance Committee (RAC) members from other Federal agencies and the State of Missouri, along with subject matter expert contractors from ICF, Inc.

DATE: 2015-08-04, SITE: Fort Calhoun Nuclear Station, NE

LOCATION	EVALUATOR	AGENCY
Iowa Joint Information Center	*Cara Christianson-Riley Dan Kanakares	FEMA RVII FEMA RVII
Nebraska Joint Information Center	*Cara Christianson-Riley Dan Kanakares	FEMA RVII FEMA RVII
Harrison County EOC/Forward Command Post	Dennis Branson *Andrew Chancellor Elsa Lopez	FEMA RVII FEMA RVII FEMA RVI
Pottawattamie County EOC	*Brad DeKorte Lisa Hamilton Timothy Harris III	FEMA RVI FEMA HQ FEMA HQ
Washington County Emergency Operations Center	Jill Leatherman *Timothy Pflieger Kenneth Wierman	ICF FEMA RVI FEMA HQ
Fort Calhoun Fire and Rescue	*Judy Dodgen	FEMA RVII
FCNS Incident Command Post	*Audie Canida Robert Swartz	FEMA RVII FEMA RI
FCNS Forward Staging Area	*Scott Flowerday	FEMA RVI
Council Bluffs Ambulance	*Norm Valentine	FEMA VII
National Weather Service, Valley, Nebraska	*Linda Gee	FEMA RVI
* Team Leader		

APPENDIX D: ACRONYMS AND ABBREVIATIONS

Acronym	Meaning
ARCA	Area Requiring Corrective Action
CFR	Code of Federal Regulation
Ctr	Center
CTY	County
DHHS	Department of Health and Human Services
DHS	Department of Homeland Security
EAS	Emergency Alert System
ECL	Emergency Classification Level
EMD	Emergency Management Director
EOC	Emergency Operations Center
EPZ	Emergency Planning Zone
ERO	Emergency Response Organization
EW	Emergency Worker
FBI	Federal Bureau of Investigation
FCNS	Fort Calhoun Nuclear Station
FCP	Forward Command Post
FEMA	Federal Emergency Management Agency
FSA	Forward Staging Area
FW	Feed Water
GAR	Governor's Authorized Representative
GE	GENERAL EMERGENCY
HAB	Hostile Action Based
IC	Incident Commander
ICP	Incident Command Post
ISP	Iowa State Patrol
JIC	Joint Information Center
KI	Potassium Iodide
NEMA	Nebraska Emergency Management Agency
NSP	Nebraska State Patrol
NWS	National Weather Service
OCA	Owner Controlled Area
OOS	Out of Service
OPPD	Omaha Public Power District
PA	Protected Area

PAD	Protective Action Decision
PAR	Protective Action Recommendation
PIO	Public Information Officer
RERP	Radiological Emergency Response Plan
SAE	Site Area Emergency
SEOC	State Emergency Operations Center
SSS	Security Shift Supervisor
TACP	Traffic & Access Control Points
TB	Turbine Building
TLD	Thermoluminescent Dosimeter

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