



# FEMA

## **Exercise & Remedial Report**

### **Fort Calhoun Nuclear Station**

**Licensee: Omaha Public Power District**

**Exercise Date: November 18, 2003**

**Remedial Date: March 2, 2004**

**Report Date: March 9, 2004**

**FEDERAL EMERGENCY MANAGEMENT AGENCY  
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# I. EXECUTIVE SUMMARY

On November 18, 2003, the Federal Emergency Management Agency (FEMA), Region VII, conducted an exercise in the Nebraska plume 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 radiological emergency. This 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, a remedial exercise was conducted on March 2, 2004, for the re-evaluation of those areas identified as Deficiencies during the November 18, 2003, exercise.

The previous exercise at this site, for Nebraska, was conducted on October 23, 2001. The qualifying emergency preparedness exercise was conducted on July 22, 1981.

FEMA wishes to acknowledge the efforts of the many individuals who participated in this exercise. In the State of Nebraska, the Risk County of Washington participated along with the State government. In the State of Iowa, the Risk County of Harrison and the Host County of Crawford participated in an out of sequence medical drill and congregate care facilities walk through. 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 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.

This draft 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 and adequately implemented them. There were two Deficiencies and six Areas Requiring Corrective Action (ARCA) identified as a result of this exercise. During the remedial exercise on March 2, 2004, both Deficiencies and four ARCAs were corrected.

There was one ARCA identified during previous exercise(s) that could have been corrected during this exercise. It was not successfully re-demonstrated. However, during the remedial exercise this ARCA was successfully re-demonstrated.

The final protective action decision (PAD) for Nebraska during the emergency phase was an evacuation of sub areas 1, 2, and 3. The Nebraska cities and towns impacted by the evacuation were Blair and Kennard. Approximately 11,523 residents in Nebraska were affected by the evacuation. The Relocation, Reentry, and Return Phase of the exercise required the relocation of the additional towns of Fort Calhoun and Washington.

## II. INTRODUCTION

On December 7, 1979, the President directed FEMA to assume lead responsibility for all offsite nuclear planning and response. FEMA's activities are conducted pursuant to 44 Code of Federal Regulations (CFR) Parts 350, 351, and 352. These regulations are a key element in the Radiological Emergency Preparedness (REP) Program that was established following the Three Mile Island Nuclear Station accident in March 1979.

FEMA Rule 44 CFR 350 establishes the policies and procedures for FEMA's initial and continued approval of State and local governments' radiological emergency planning and preparedness for commercial nuclear power plants. This approval is contingent, in part, on State and local governments' participation in joint exercises with licensees.

FEMA's responsibilities in radiological emergency planning for fixed nuclear facilities include the following:

- \* Taking the lead in offsite emergency planning and in the review and evaluation of radiological emergency response plans (RERP) and procedures developed by State and local governments.
- \* Determining whether such plans and procedures can be implemented on the basis of evaluation of exercises of the plans and procedures conducted by State and local governments.
- \* Responding to requests by the U.S. Nuclear Regulatory Commission (NRC) pursuant to the Memorandum of Understanding between the NRC and FEMA (Federal Register, Vol. 58, No. 176, September 14, 1993).
- \* Coordinating the activities of the following Federal agencies with responsibilities in the radiological emergency planning process:
  - U.S. Department of Commerce
  - U.S. Nuclear Regulatory Commission
  - U.S. Environmental Protection Agency
  - U.S. Department of Energy
  - U.S. Department of Health and Human Services
    - U.S. Food and Drug Administration
    - U.S. Public Health Service
  - U.S. Department of Transportation

- U.S. Department of Agriculture
- U.S. Department of the Interior

Representatives of these agencies serve on the FEMA Region VII Regional Assistance Committee (RAC), which is chaired by FEMA.

Formal submission of the RERPs for the Fort Calhoun Nuclear Station to FEMA Region VII by the States of Iowa and Nebraska and involved local jurisdictions occurred on June 29, 1984. Formal approval of these RERPs was granted by FEMA on December 17, 1984, for Nebraska and on May 20, 1987, for Iowa under 44 CFR 350. The alert and notification system was approved by FEMA on April 27, 1989.

A REP exercise was evaluated on November 18, 2003, by FEMA Region VII to assess the capabilities of the State of Nebraska and local offsite emergency preparedness organizations in implementing their RERPs and procedures to protect the public during a radiological emergency involving the Fort Calhoun Nuclear Station. The purpose of this exercise report is to present the exercise results and findings on the performance of the offsite response organizations (OROs) during a simulated radiological emergency. In addition, a remedial exercise was evaluated on March 2, 2004, for the re-demonstration of areas identified as Deficiencies during the November 18, 2003, exercise.

The findings presented in this report are based on the evaluations of the Federal evaluator team, with final determinations made by the FEMA Region VII RAC Chairperson and approved by the Regional Director. The findings of the remedial exercise are also included in this report.

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 as published in the Federal Register September 12, 2001 and April 25, 2002.

Section III of this report, entitled "Exercise Overview," presents basic information and data relevant to the exercise. This section of the report contains a description of the plume pathway EPZ, a listing of all participating jurisdictions and functional entities, which were evaluated, and a tabular presentation of the time of actual occurrence of key exercise events and activities.

Section IV of this report, entitled "Exercise Evaluation and Results," presents basic information on the demonstration of applicable exercise criteria at each jurisdiction or functional entity evaluated in a jurisdiction-based, issues only format. This section also contains: (1) descriptions of all Deficiencies and ARCAs assessed during this exercise, recommended corrective actions, and the State and local governments' Schedule of Corrective Actions for each identified exercise

issue and (2) descriptions of ARCAs assessed during previous exercises and the status of the OROs' efforts to resolve them.

### **III. EXERCISE OVERVIEW**

Contained in this section are data and basic information relevant to the November 18, 2003, exercise to test the offsite emergency response capabilities in the area surrounding the Fort Calhoun Nuclear Station. This section of the exercise report includes a description of the plume EPZ, a listing of all participating jurisdictions and functional entities, which were evaluated, and a tabular presentation of the time of the actual occurrence of key exercise events and activities.

#### **A. Plume EPZ Description**

The Fort Calhoun Nuclear Station is located along the west bank of the Missouri River, in Washington County, Nebraska.

The topography of the 10-mile EPZ varies from relatively flat east and south of the site, to rolling hills to the west and north of the site.

The 10-mile EPZ contains a total population of 18,424 within four counties: Washington (includes the towns of Blair, Fort Calhoun, and Kennard) and Douglas Counties in Nebraska, and Harrison (includes the towns of Missouri Valley, Modale, and California Junction) and Pottawattamie (includes the town of Loveland) Counties in Iowa. The land use within the EPZ is predominantly diversified agricultural production. There are four recreational areas in the EPZ: Wilson Island State Park, Fort Atkinson, Boyer Chute Recreation Area, and Desoto National Wildlife Refuge. Various forms of transportation serve the area. Interstate Highway 29 passes eight miles to the east and northeast of the site, U.S. Highway 75 passes within one mile to the south, and U.S. Highway 30 passes within two miles to the north and west. The Union Pacific Railroad passes approximately two and one half miles to the north and there is seasonal boat traffic on the Missouri River.

#### **B. Exercise Participants**

The following agencies, organizations, and units of government participated in the Fort Calhoun Nuclear Station exercise on November 18, 2003.

#### **STATE OF NEBRASKA**

Governor's Office  
State Emergency Management Agency  
National Guard  
Department of Agriculture  
Health & Human Services/Regulations & Licensure  
State Highway Patrol

Department of Roads  
Game and Parks Commission  
University of Nebraska Medical Center

## **RISK JURISDICTION (NEBRASKA)**

### **WASHINGTON COUNTY**

Board of Supervisors  
Emergency Management Office  
Mayors of Fort Calhoun and Blair  
Region 5/6 Emergency Management Coordinator  
Radiological Officer  
Public Information Officer  
Department of Social Services  
Sheriff's Department  
Blair Fire Department  
Blair Police Department  
Blair School District  
Fort Calhoun School District  
Fort Calhoun Ambulance

## **PRIVATE/VOLUNTEER ORGANIZATIONS (NEBRASKA and IOWA)**

American Red Cross  
Radio Amateur Civil Emergency Service

## **STATE OF IOWA**

Crawford County Emergency Management  
Missouri Valley Ambulance

## **FEDERAL PARTICIPATION**

FEMA Region VII

## **C. Exercise Timeline**

Table 1, on the following pages, presents the time at which key events and activities occurred during the Fort Calhoun Nuclear Station plume exercise held on November 18, 2003. Also included are times that notifications were made to the participating jurisdictions/functional entities.

## **Table 1-1**

## Table 1-2

## **IV. EXERCISE EVALUATION AND RESULTS**

Contained in this section are the results and findings of the evaluation of all jurisdictions and functional entities, which participated in the November 18, 2003, exercise to test the offsite emergency response capabilities of the State of Nebraska and local Nebraska governments in the 10-mile EPZ surrounding the Fort Calhoun Nuclear Station.

Each jurisdiction and functional entity was evaluated on the basis of its demonstration of criteria delineated in Emergency Preparedness: Exercise Evaluation Methodology as printed in the Federal Register September 12, 2001 and April 25, 2002. Detailed information on the exercise criteria and the extent-of-play agreement for this exercise is found in Appendix 3 of this report.

### **A. Summary Results of Exercise Evaluation**

The matrix presented in Table 2, on the following pages, 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 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 2. Summary Results of Exercise Evaluation

**One**

## B. Status of Jurisdictions Evaluated

This subsection provides information on the evaluation of each participating jurisdiction and functional entity, in a jurisdiction based, issues only format. Presented below is a definition of the terms used in this subsection relative to criteria demonstration status:

**Met** - Listing of the demonstrated exercise criteria under which no Deficiencies or ARCAs were assessed during this exercise, and under which no ARCAs assessed during prior exercise remain unresolved.

**Deficiency** - Listing of the demonstrated exercise criteria under which one or more Deficiencies were assessed during this exercise. Included is a description of each Deficiency and recommended corrective actions.

**Area Requiring Corrective Actions (ARCA)** - Listing of the demonstrated exercise criteria under which one or more ARCAs were assessed during the current exercise. Included is a description of the ARCA(s) assessed during this exercise and the recommended corrective action to be demonstrated before or during the next biennial exercise.

**Not Demonstrated** - Listing of the exercise criteria which were not demonstrated as scheduled during this exercise and the reason they were not demonstrated.

**Prior ARCAs - Resolved** - Description of ARCAs assessed during previous exercises, which were resolved in this exercise, and the corrective actions demonstrated.

**Prior ARCAs - Unresolved** - Descriptions of ARCAs assessed during prior exercises, which were not resolved in this exercise. Included is the reason the ARCAs remain unresolved and recommended corrective actions to be demonstrated before or during the next biennial exercise.

The following are definitions of the two types of exercise issues, which are discussed in this report.

- \* A **Deficiency** is defined by FEMA as ". . . an observed or identified inadequacy of organizational performance in an exercise 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 by FEMA as ". . . an observed or identified inadequacy of organizational performance in an exercise 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. STATE OF NEBRASKA

### 1.1 State Emergency Operations Center.

The State Emergency Operations Center (EOC) is located in the Nebraska Military Department complex in Lincoln, Nebraska. Emergency Management staff and state agency representatives are knowledgeable, professional and committed. The recently remodeled EOC provides the operations area with state-of-the-art workstations, visual aides, messaging capabilities, and the new “video wall” provides a useful tool for sharing vital information. Communications systems are redundant and well used. GIS materials and systems are a highly effective resource. Coordination of information leading to the relocation, re-entry and return message development was exceptional. The EOC was well-organized to accommodate agencies and functions into limited space.

- a. **MET:** Criteria 1c1, 1d1
- b. **DEFICIENCY:** None
- c. **AREAS REQUIRING CORRECTIVE ACTION:** 5b1

**Issue No.:** 025-2004-5b1-A-01

**Description:** Inaccurate information concerning the status of schools and the location/evacuation of school students was provided in EAS or Emergency Public Information (EPI) messages. Schools were notified of the situation at Ft. Calhoun at 0725 local time prior to opening and, therefore, did not open and turned away arriving staff and students. EAS/EPI messages broadcast much later, at 1014, did not mention the schools' closures but, instead, indicated that students had been relocated to Fremont High School according to established school procedures. Without public notice of the schools' closures, parents, guardians or care-givers would not have been aware that the students had been returned to their homes or places of shelter. In light of subsequent announcements concerning evacuations and absent this information, parents, guardians or care-givers may have attempted to enter the evacuated area to pick up students only to find the schools empty. Based on inaccurate information that students had been relocated to Fremont, parents, guardians or care-givers may have arrived there only to find that the students had not been transported to that location. Any or all of these scenarios could have caused confusion, led to panic and eroded confidence in public authorities during an emergency. (NUREG-0654, G.1.c., G.4.b., E.5.)

**Recommendation:** Procedures for reviewing and approving the content of pre-scripted messages and public information materials should be reviewed and strengthened to avoid a repetition of this issue. The pre-scripted messages assume that schools are in session during normal hours. That may not be the case.

**Schedule of Corrective Actions:** The State of Nebraska is cognizant of the issue identified and will correct the issue during the remedial exercise scheduled for March 2, 2004. The State EOC and PIO staff will receive additional training and the State Liaison at the county EOC will make further efforts to ensure information is gathered for media dissemination.

**Corrective Action Demonstrated:** During the Remedial Exercise conducted March 2, 2004, a successful re-demonstration of the review, modification, and issuance of pre-scripted messages and public information materials was accomplished. EAS messages, press releases, EPI messages, and other communications were effectively handled, carefully reviewed, and properly distributed pursuant to existing state plans and procedures. This issue is now closed.

**Issue No.:** 025-2004-5b1-A-02

**Description:** A decision to implement an embargo of agricultural products within a 50-mile radius of Ft. Calhoun Nuclear Station, at 1016, by the Governor's Authorized Representative (GAR), was never communicated to the public. At 0946, the GAR advised agencies within the State EOC to begin consideration of an embargo on raw agricultural products from within a 50-mile radius of the nuclear plant. This matter resurfaced at 1001 when the GAR again communicated an interest in an embargo to

include hays, stored grain, raw milk, pigs, cattle and chickens. At 1016, the GAR ordered an embargo based on recommendations of the Department of Health and Human Services. There is no evidence that this decision to embargo was ever communicated to the public. While Department of Agriculture personnel may have attempted to notify producers, suppliers and sellers within the affected area, no effort was made to develop or disseminate information to the public. As a result, demands for traffic control and inspection may have been increased by persons unknowingly placing demands on the embargo system by transporting prohibited commodities through the affected area, and contaminated items may have unwittingly been delivered to market or otherwise relocated. (NUREG-0654, G.1.c., E.5.)

**Recommendation:** Procedures for implementing such directed activities should include a concurrent development of press information to deliver the appropriate message to the public. In addition, procedures need to be in-place to “close the loop” on GAR-mandated actions to ensure that appropriate public information has been developed and delivered. Finally, procedures should be implemented to induce full review of such information pieces, thereby enhancing not only the quality of the information but the probability that the absence of the information will be questioned.

**Schedule of Corrective Actions:** The State of Nebraska is cognizant of the issue identified and will correct the issue during the remedial exercise scheduled for March 2, 2004. The State EOC and PIO staff will receive additional training and the State Liaison at the county EOC will make further efforts to ensure information is gathered for media dissemination.

**Corrective Action Demonstrated:** During the Remedial Exercise conducted March 2, 2004, a successful re-demonstration of the processes and procedures for handling and coordinating GAR mandated actions was accomplished. Care was demonstrated in loop-closing to ensure that GAR mandates were effectively communicated and implemented. This issue is now closed.

- d. **NOT DEMONSTRATED:** None
- e. **PRIOR ARCAs - RESOLVED:** None
- f. **PRIOR ARCAs - UNRESOLVED:** None

## **1.2 Dose Assessment and Field Team Coordination.**

This function is located in the utility’s Emergency Operations Facility (EOF) in Omaha, Nebraska. The Nebraska staff displayed an excellent command of technical knowledge, especially plant conditions, dose projection, and plans and procedures. An excellent ability to quickly and accurately process information and ask pertinent questions to make solid protective action recommendations to the GAR was demonstrated. Internal and external communication

was systematic, deliberate, direct and concise, with very little extraneous information. Coordination with other agencies was effective. The dose assessment manager worked well with the plant dose assessment group. Field Team Coordination did an excellent job of directing field teams to identify the plume, and to read their dosimeters.

- a. **MET:** Criteria 1d1, 2b1, 2b2
- b. **DEFICIENCY:** None
- c. **AREAS REQUIRING CORRECTIVE ACTION:** None
- d. **NOT DEMONSTRATED:** None
- e. **PRIOR ARCAs - RESOLVED:** None
- f. **PRIOR ARCAs - UNRESOLVED:** None

### 1.3 Field Monitoring Teams.

The Nebraska field team provided by the Cooper Nuclear Station was the only field team evaluated as part of this exercise. Credit was given, based on current regulations and policy documents, for the State field team demonstration during the Cooper Nuclear Station Exercise August 27, 2002. Communications between the monitoring teams and the field team coordinator went smoothly. The field team was well aware of their objectives, such as defining the plume and maintaining contamination control. The field team displayed a thorough knowledge of their procedures and equipment. The field team members exhibited positive attitudes throughout the exercise.

- a. **MET:** Criteria 1a1, 1d1, 3a1, 3b1, 4a3
- b. **DEFICIENCY:** None
- c. **AREAS REQUIRING CORRECTIVE ACTION:** 1e1, 4a1

**Issue No.:** 025-2004-1e1-A-03

**Description:** The maps supplied to the Cooper Nuclear Station field monitoring team were inadequate for locating pre-designated monitoring locations. The maps were outdated and did not reflect current county road number designations. In addition, the maps did not include roads completed since the maps were made. The field team was unable to locate two out of four monitoring locations. (NUREG-0654, J.10.a.)

**Recommendation:** Maps used by the Cooper Nuclear Station field monitoring team must be updated to reflect current roads and county road numbers. Adequate maps

for this field team must be provided for their monitoring kits and documentation that this has been accomplished provided to this office.

**Schedule of Corrective Actions:** The State of Nebraska, HHS, Regulation and Licensure will ensure that all field team members have current maps during the next biennial exercise.

**Issue No.:** 025-2004-4a1-A-04

**Description:** An appropriate radioactive check source, to verify proper operational response for each low range radiation measurement instrument (less than 1 R/hr), was not available in the field team kit. The Cooper EOF was not operational at the time the field team departed to the Ft. Calhoun EOF; therefore the field team did not secure the check source prior to departure from the Cooper EOF, as required by their procedures. In addition, although a Nebraska State field team was present at the Ft. Calhoun EOF during this time, there was no discussion between the Cooper and State teams regarding using the State team's check source to verify proper operation of the Cooper team's low range gamma instrument. If the low range measurement operational response was not verified, it could have resulted in the field monitoring measurements being questionable or inaccurate. (NUREG-0654, H.10, I.8., 9., 11.)

**Recommendation:** A check source should be added to the field team's equipment kit for operational verification. The field teams must demonstrate proper radiation detection instrument operability checks during the next biennial exercise.

**Schedule of Corrective Actions:** The State of Nebraska HHS, Regulation and Licensure will ensure that field teams have the ability to perform an operability check prior to departure into the field. This will be re-demonstrated at the next biennial exercise.

- d. **NOT DEMONSTRATED:** None
- e. **PRIOR ARCAs - RESOLVED:** None
- f. **PRIOR ARCAs - UNRESOLVED:** None

#### **1.4 Joint Information Center\Media Release Center.**

This function is located in the Omaha Public Power District Plaza Building in Omaha, Nebraska. The previous ARCA identified during the August 27-28, 2002, Cooper Nuclear Station exercise was not corrected. Media briefings were well-coordinated between Nebraska, Iowa, and utility spokespersons. The staff effectively responded to several difficult "mock media" questions. The Public Inquiry System worked well.

- a. **MET:** Criteria 1d1
- b. **DEFICIENCY:** None
- c. **AREAS REQUIRING CORRECTIVE ACTION:** 5b1

**Issue No.:** 025-2004-5b1-A-05

**Description:** The media briefings and the news releases did not contain information concerning the status of schools and special facilities within the evacuated areas. The Washington County EOC did not provide any information to the state concerning the status of protective actions for the schools or special facilities. In addition, the state, including the NEMA PIO, failed to inquire of the county concerning this information. Relatives and the public would not have been informed as to what actions were being taken to protect the students, staff, and patients of the schools and special facilities. (NUREG-0654, E.5., 7., G.3.a., G.4.a.b.c.)

**Recommendation:** If information is not received from the County, the FCP, or the State EOC concerning protective actions for the schools and special facilities or other critical actions, the state PIO should inquire as to the status. The PIO should have procedures listing what items must be included in news releases and briefings. When the PIO identifies that some critical information is missing, he/she must take appropriate steps to obtain the information. The PIO must demonstrate the use of the procedures during the next biennial exercise.

**Schedule of Corrective Actions:** The State of Nebraska is cognizant of the issue identified and will correct the issue during the remedial exercise scheduled for March 2, 2004. The State PIO staff will receive additional training prior to the remedial exercise.

**Corrective Action Demonstrated:** During the Remedial Exercise conducted March 2, 2004, the PIO provided timely and accurate information to the public. The PIO prepared and disseminated a total of eight news releases. Four of the news releases (numbers 3, 4, 5 and 6) contained information concerning protective actions being taken for schools and special facilities in the affected areas. The information and instructions provided to parents and guardians of students and special facility residents was accurate and complete. This issue is now closed.

- d. **NOT DEMONSTRATED:** None
- e. **PRIOR ARCAs - RESOLVED:** 5b1

**Issue No.:** 16-2002-5b1-A-03

**Description:** The State released inconsistent or inaccurate information to the public through news releases and media briefings. This inconsistent or inaccurate information could have caused confusion to the media and ultimately to the public. (NUREG-0654, E. 5.,7., G.3.a., G.4,a.,b.,c.)

1. At 1010, during the second media briefing on the first day of the exercise, the NEMA PIO indicated that Locust Grove, Brownville, and Peru State College were being evacuated and that students were being taken to the reception center in Nebraska City, NE. This information was also distributed in news release #3. This information was not corrected until approximately 1050 during the third media briefing, indicating that Locust Grove and Brownville schools had in fact evacuated their children to the reception center at Falls City, NE.

2. During the 1050 media briefing, there were two additional questions posed by the mock media to the NEMA PIO that were left unresolved and could have potentially had an impact on the health and safety of the public. The first question asked whether the evacuation of area 11 was a “mandatory evacuation.” The response given by the NEMA PIO indicated yes, residents were being requested to evacuate and did not clearly resolve whether the evacuation was voluntary or mandatory. In a follow-up one-on-one interview, the PIO indicated that the evacuation was being requested, but that the State could not order people to leave their homes. The second question posed by the mock media during the 1050 media briefing asked the NEMA PIO if potassium iodide (KI) would be given to the general public. The NEMA PIO responded that he had no information on the issue at that time and would get back with a response at a later media briefing. Following the media briefing, the NEMA PIO requested information from the SEOC to respond to the question about Nebraska policy on giving KI to the general public. This question was not resolved (nor was the question posed again) at subsequent media briefings.

**Recommendation (from 2002 CNS exercise):** The NEMA JIC staff did not keep a log of incoming messages or otherwise track incoming information and messages. A more structured message and information log could correct the release of incorrect information by providing an established source for double-checking critical information before it is released to the public. The other instances of inconsistent information released to the public and the media regarding whether the evacuation was voluntary or mandatory and whether KI would be given to the general public could be corrected through a more structured message and information log and additional training for JIC staff on Nebraska RERP policy. This criteria must be demonstrated during the next biennial exercise.

**Schedule of Corrective Actions (from 2002 CNS exercise):** The Nebraska Emergency Management Agency is in a continuing process to improve the incident logging methodology and fully intends to implement a system allowing all NEMA representatives in the field the ability to remotely connect to the incident management

logging software used in the State EOC. The PIO will be re-trained regarding school evacuations and given more thorough information regarding voluntary evacuations within the State of Nebraska. The PIO will receive additional training on the issue of evacuations and applicable Nebraska statutes. The PIO will also be informed of any decision the Governor's Office ultimately makes, with regard to KI for the general public. This criteria will be re-demonstrated during the next Fort Calhoun Nuclear Station exercise.

**Reason ARCA Unresolved:** This ARCA was not corrected because the state again failed to provide accurate information to the public, concerning protective actions taken for schools through either news releases or media briefings. This again could have caused confusion for the media and the public.

**Recommendation:** If information is not received from the County, the FCP, or the State EOC concerning protective actions for the schools and special facilities or other critical actions, the state PIO should inquire as to the status. The PIO should have procedures listing what items must be included in news releases and briefings. When the PIO identifies that some critical information is missing, he/she must take appropriate steps to obtain the information. The PIO must demonstrate the use of the procedures during the next biennial exercise.

**Schedule of Corrective Actions:** The State of Nebraska is cognizant of the issue identified and will correct the issue during the remedial exercise scheduled for March 2, 2004. The State PIO staff will receive additional training prior to the remedial exercise.

**Corrective Action Demonstrated:** During the Remedial Exercise conducted March 2, 2004, the PIO provided timely and accurate information to the public. The PIO prepared and disseminated a total of eight news releases. Four of the news releases (numbers 3, 4, 5 and 6) contained information concerning protective actions being taken for schools and special facilities in the affected areas. The information and instructions provided to parents and guardians of students and special facility residents was accurate and complete. This issue is now closed.

**f. PRIOR ARCAs - UNRESOLVED:** None

## **1.5 Emergency Operations Facility/Field Command Post (GAR).**

This function is located in the utility EOF in Omaha, Nebraska. There was excellent coordination between Nebraska, Iowa, Dose Assessment, and the utility. Multiple redundant communication systems kept all participants advised in a timely manner. The Departments of Transportation, Highway Patrol, and Agriculture are commended for their coordination and discussions during reentry/recovery. The Department of Health and Human Services and GAR and staff are commended for their proactive planning. The GAR is commended for working both simulated disasters, earthquake and power plant, simultaneously.

- a. **MET:** Criteria 1c1, 1d1, 2b1, 2b2, 5b1
- b. **DEFICIENCY:** None
- c. **AREAS REQUIRING CORRECTIVE ACTION:** None
- d. **NOT DEMONSTRATED:** None
- e. **PRIOR ARCAs - RESOLVED:** None
- f. **PRIOR ARCAs - UNRESOLVED:** None

## 1.6 University of Nebraska Medical Center (UNMC).

This function is located at the UNMC Campus in Omaha, Nebraska. This facility was demonstrated out-of-sequence from the exercise on November 19, 2003. The Radiological Emergency Area (RAC) was set up very quickly.. The staff were well trained in appropriate radiation protection procedures and performed their duties with enthusiasm and professionalism. **Recommendation:** Emergency planners from the state, county and UNMC should consider modifying their emergency response plans to be more consistent with each other or to address the differences between contamination action levels. UNMC Radiation Health Center staff use 3000 cpm (1mR/hr) emergency contamination action level and 220 cpm patient release level. These levels are not consistent with other contamination action levels used throughout the state and counties. The RHC contamination action level was developed considering the type of instruments used to monitor individuals and corresponds to 1mR/hr. It is also based on FEMA REP-22 “Contamination Monitoring Guidance for Portable Instruments Used for Radiological emergency Response to Nuclear Power Plants” October 2003. County plans establish contamination action levels of 100 cpm above background. Reception and Care centers send contaminated evacuees who can not be decontaminated below 100 cpm above background to UNMC for further assessment, treatment and possible decontamination. Inconsistent contamination action levels between the counties and UNMC could lead to confusion of the general public regarding appropriate and safe contamination levels.

- a. **MET:** Criteria 1e1, 3a1, 6d1
- b. **DEFICIENCY:** None
- c. **AREAS REQUIRING CORRECTIVE ACTION:** None
- d. **NOT DEMONSTRATED:** None
- e. **PRIOR ARCAs - RESOLVED:** None

f. **PRIOR ARCAs - UNRESOLVED:** None

## 2. RISK JURISDICTION

### 2.1 Washington County

#### 2.1.1 Emergency Operations Center.

The County EOC is located in the basement level of the Law Enforcement and Detention Facility in Blair, Nebraska. The Washington County Law Enforcement staff performed in an outstanding manner. The Washington County EOC staff worked well on Relocation, Re-entry, and Return activities. The Radiological Officer gave excellent dosimetry briefings to all staff.

a. **MET:** Criteria 1a1, 1b1, 1d1, 1e1, 2a1, 2b2, 3a1, 3b1, 3c1, 3c2, 3d1, 3d2, 3f1, 5a1, 5a3

b. **DEFICIENCY:** 1c1, 2c1

**Issue No.:** 025-2004-1c1-D-06

**Description:** Direction and control was never fully established within the Washington County EOC. The Emergency Management Director never fully assumed his leadership and coordination role within the EOC structure. The EOC staff worked independently without coordinating their activities or informing other staff of their actions. Regular briefings by all EOC staff, by functional area, did not occur until evaluators indicated to the Emergency Management Director (at approximately 10:15 a.m.) that this should be done in order to effectively coordinate activities and insure that no necessary actions were missed. Even after receiving this advice from the evaluators, this process was never fully engaged and information exchanged within the EOC about activities was incomplete. Examples of problems related to this direction and control failure include:

- Accurate information concerning protective actions for schools was never provided to the public. The Blair and Fort Calhoun Schools were notified at the Alert (7:15 a.m.) in accordance with an automatic procedure that is implemented by the Sheriff's Office dispatch center. When asked what action was taken for the schools, the Emergency Management Director was initially uncertain about this. After consultation with the State Liaison and others, the Emergency Management Director stated that the schools would use their normal evacuation procedures. Later in the exercise, information was circulated that the schools had been notified and closed prior to their normal

start time and that buses enroute to school would have been turned around. However, no message went out to the public to address school closures and to notify parents that their children were being returned home. No information was provided to the public concerning schools or daycare facilities until an Emergency Public Information (EPI) message was released following the General Emergency (10:14 a.m.). That message incorrectly indicated that the schools had been relocated to Fremont High School. There was a great deal of uncertainty about the action taken for the schools and the status of the school children. It is possible that school children could have been returned to their homes without parental supervision. This could have posed a serious threat to their health and safety during the evacuation of sub areas 1, 2, and 3.

- The Sheriff's Office personnel conducted back-up route alerting for areas affected by a siren outage (sirens 41 and 42) following the Site Area Emergency at 8:59 a.m. A controller message about the siren failure at 8:43 a.m. led to much discussion by the Sheriff's Office on this issue. However, information about the actual initiation and completion of route alerting was not communicated to anyone else within the EOC. The Emergency Management Director never directed his staff to initiate this action and was not aware that they had done this. There was also confusion among Sheriff's Office personnel about whether this action had been initiated and completed.
- The Sheriff's Office made a decision to evacuate the village of Washington, which lies outside the 10 mile EPZ and the sub areas evacuated (1, 2, and 3). Other EOC staff and the State were unaware of this action until it was mentioned at the beginning of the post-plume phase of the exercise. No public information or EAS/EPI message was released that addressed this action.

The Emergency Management Director failed to take on a leadership and coordination role with the EOC staff. In addition, the EOC staff did not know what other functional areas of the EOC were accomplishing until the evaluators asked them to provide EOC briefings. A failure to establish direction and control resulted in miscommunication within the Washington County EOC and between the EOC and the State on important issues concerning public safety and public information. Communication and coordination in general was insufficient to insure that all necessary activities were accomplished, verified, and communicated to affected parties in a timely manner. **(NUREG-0654, A.1.d., 2.a., b.)**

**Recommendation:** A remedial exercise must be conducted by the Washington County Emergency Operations Center. This should occur subsequent to the Emergency Management Director receiving training in EOC direction and control. In addition, the dedicated hotline and fax machine should be moved to a location within the EOC to eliminate the Emergency Management Director from having to leave the EOC frequently.

**Schedule of Corrective Actions:** A Remedial Exercise will be conducted on March 2, 2004, during which the Washington County EOC staff will re-demonstrate this criteria.

**Corrective Action Demonstrated:** During the Remedial Exercise conducted March 2, 2004, direction and control for the Washington County EOC was fully established by the Emergency Management Director (EMD). The leadership and coordination role provided by the EMD was satisfactorily demonstrated. Regular briefings with all of the EOC staff were conducted on the hour, utilizing a new dry erase board that could print the data so it could be posed for everyone to reference. Briefings included accurate information about protective action decisions, route alerting, and the modification of EAS/EPI messages to include changes in PADs. Timely communication and coordination were sufficient to allow the accomplishment of necessary activities. The fax machine relocation into the EOC allowed for immediate access to critical data. Additional phones were made available to exercise participants, which provided needed flexibility. As a result of the more effective direction and control and better internal communications timely information was provided to the public concerning protective actions for the public and for schools and special facilities. The direct communication line was not relocated into the EOC. Although not doing this did not cause any problems, it is recommended that this be accomplished as the ability to monitor this line would enhance the operation within the EOC. This issue is now closed.

**Issue No.:** 025-2004-2c1-D-07

**Description:** The Washington County plan states that nursing homes and hospitals will be evacuated. During the exercise, there were conflicting discussions within the EOC about what actions should be taken for the nursing homes and the hospital located within the sub areas to be evacuated. The Health and Human Services representative stated that these facilities would shelter-in-place. However, fire department personnel were standing by to assist with evacuation of these facilities and there was discussion within the EOC about providing transportation resources to assist with the evacuation of the nursing homes and the hospital. There is no evidence that either of these protective action decisions was made for the special populations or that these facilities were ever notified (either actually or simulated) about any protective actions to take.

The plans and procedures for making decisions regarding the protection of special populations and facilities were not followed. There was a lack of effective communication within the EOC and between the EOC and the state of Nebraska's facilities. The ineffective communication and coordination of the county's actions resulted in critical actions not being accomplished. As the result of the failure to make and communicate decisions concerning special facilities, these populations were not adequately protected and the health and safety of these persons was compromised. (NUREG-0654, J.9., 10.c.d.e.g.)

**Recommendation:** A remedial exercise must be conducted by the Washington County Emergency Operations Center. All EOC staff should review plans and procedures and additional training must be provided concerning the plans and procedures for the protection of special populations. The Emergency Management Coordinator needs to ensure that plans and procedures are followed and must closely monitor staff activities within the EOC to ensure that critical actions are accomplished. In addition, careful logging of EOC activities and regular communications, both internally and externally, are required to effectively coordinate activities and provide quality control.

**Schedule of Corrective Actions:** A Remedial Exercise will be conducted on March 2, 2004, during which the Washington County EOC staff will re-demonstrate this criteria. In addition, a meeting will be conducted between the State of Nebraska Emergency Management Agency staff, the Nebraska Region 5/6 Emergency Management Coordinator, and with the above special population groups to secure the decision-making for evacuation.

**Corrective Action Demonstrated:** During the Remedial Exercise conducted March 2, 2004, the EOC staff had discussion concerning actions to be taken for nursing homes, hospital, day-care centers, mobility impaired and transportation dependant individuals. The Health and Human Services representative notified the fire department of persons needing transportation. In addition to the facilities being notified concerning recommended protective actions, there were messages and press releases published informing the public that the hospital and nursing homes were being evacuated. These actions were pursuant to the county plans and procedures. This issued is now closed.

**c. AREAS REQUIRING CORRECTIVE ACTION: 5b1**

**Issue No.:** 025-2004-5b1-A-08

**Description:** Accurate information concerning the conditions and changes to pre-scripted EAS messages was not forwarded to the Nebraska State EOC or the JIC to be included in Public Press Releases\Briefings. One example is, when it was decided to evacuate sub areas 1, 2, & 3, the city of Washington was included even though it was outside of the EPZ. This meant that the pre-scripted Emergency Public Information (EPI) message #13 did not include this information. The county did not inform the State EOC or the JIC of their amended protective action or the need to modify the public information. Therefore, the city of Washington was not included in the EPI that was sent at 1025. The PIO assigned to the Washington County EOC is a new employee and his limited training was obvious. His lack of experience and lack of direction from the Emergency Management Director allowed the mistake of not forwarding information to the State. Interested persons and family members of people who live in the City of Washington were not made aware of those people being

evacuated. (NUREG-0654, E. 5.,7.)

**Recommendation:** Additional training and exercising will provide the knowledge needed to insure that future information is passed up and down the line between the Washington County and Nebraska State EOC.

**Schedule of Corrective Actions:** The State of Nebraska and Washington County are cognizant of the issue identified and will correct the issue during the remedial exercise scheduled for March 2, 2004. The State PIO staff and the Washington County EOC staff will receive additional training prior to the remedial exercise.

**Corrective Action Demonstrated:** During the Remedial Exercise conducted March 2, 2004, adequate coordination between the State EOC and the County EOC was demonstrated. This coordination included discussions of the modification of pre-scripted messages and public information due to scenario driven evacuation route closures. This issue is now closed

- d. **NOT DEMONSTRATED:** None
- e. **PRIOR ARCAs - RESOLVED:** None
- f. **PRIOR ARCAs - UNRESOLVED:** None

### 2.1.2 Blair Rescue Squad:

The ambulance is located in Blair, Nebraska. The demonstration was conducted out-of-sequence, September 4, 2003. The rescue squad was very well trained. They demonstrated good contamination control.

- a. **MET:** Criteria 1e1, 3a1, 3b1, 6d1
- b. **DEFICIENCY:** None
- c. **AREAS REQUIRING CORRECTIVE ACTION:** None
- d. **NOT DEMONSTRATED:** None
- e. **PRIOR ARCAs - RESOLVED:** None
- f. **PRIOR ARCAs - UNRESOLVED:** None

### **3. STATE OF IOWA**

#### **3.1 Missouri Valley Ambulance.**

This ambulance service is located in Missouri Valley, Iowa. This facility was evaluated out-of-sequence on September 4, 2003. The ambulance crew was very well trained. They demonstrated effective contamination control.

- a. MET:** Criteria 1e1, 3a1, 3b1, 6d1
- b. DEFICIENCY:** None
- c. AREAS REQUIRING CORRECTIVE ACTION:** None
- d. NOT DEMONSTRATED:** None
- e. PRIOR ARCAs - RESOLVED:** None
- f. PRIOR ARCAs - UNRESOLVED:** None

### **4. SUPPORT JURISDICTIONS**

#### **4.1 Crawford County**

##### **4.1.1 Denison Congregate Care Facilities.**

These facilities are located in Denison, Iowa. The facilities evaluated were the Denison Elementary, Middle, and High Schools. Participants included the Crawford County Emergency Management Agency and the American Red Cross. These facilities demonstrated out-of-sequence of the exercise on September 4, 2003 and November 19, 2003. Both the Crawford County Emergency Manager and the American Red Cross representative were very knowledgeable of their roles concerning the congregate care facilities.

- a. MET:** Criteria 6c1
- b. DEFICIENCY:** None
- c. AREAS REQUIRING CORRECTIVE ACTION:** None
- d. NOT DEMONSTRATED:** None

**e. PRIOR ARCAs - RESOLVED: None**

**f. PRIOR ARCAs - UNRESOLVED: None**

## **Appendix 1 - Acronyms and Abbreviations**

The following is a list of the acronyms and abbreviations, which were used in this report.

ARCA	Area Requiring Corrective Action
CFR	Code of Federal Regulations
CNS	Cooper Nuclear Station
CPM	Counts per Minute
EAL	Emergency Action Level
EAS	Emergency Alerting System
ECL	Emergency Classification Level
EMC	Emergency Management Coordinator
EMD	Emergency Management Director/Division
EOC	Emergency Operations Center
EOF	Emergency Operations Facility
EOP	Extent of Play
EPA	U.S. Environmental Protection Agency
EPI	Emergency Public Information
EPZ	Emergency Planning Zone
EW	Emergency Worker
FCNS	Fort Calhoun Nuclear Station
FCP	Field (Forward) Command Post
FDA	U.S. Food Drug Administration
FEMA	Federal Emergency Management Agency
FTC	Field Team Coordination (Coordinator)

GAR	Governor's Authorized Representative
JIC	Joint Information Center
KI	Potassium Iodide
mR	Milliroentgen
MRC	Media Release Center
NEMA	Nebraska Emergency Management Agency
NRC	U.S. Nuclear Regulatory Commission
NUREG-0654	Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants (NUREG-0654/FEMA-REP-1, Rev. 1).
NWS	National Weather Service
OPPD	Omaha Public Power District
ORO	Offsite Response Organization
PAD	Protective Action Decision
PAR	Protective Action Recommendation
PIO	Public Information Officer
R	Roentgen
RAC	Regional Assistance Committee
REP	Radiological Emergency Preparedness
RERP	Radiological Emergency Response Plan
RHC	Radiation Health Center
TDD	Telecommunications Device for the Deaf
TL	Team Leader

TLD	Thermoluminescent Dosimeter
UNMC	University of Nebraska Medical Center
USDA	U.S. Department of Agriculture

## Appendix 2 - Exercise Evaluators and Team Leaders

The following is a list of the personnel who evaluated the Fort Calhoun Nuclear Station exercise on November 18, 2003 and the Out of Sequence demonstrations on September 4, 2003 and November 19, 2003. The letters “TL” after their names indicates evaluator Team Leaders. The organization, which each evaluator represents, is indicated by the following abbreviations:

FEMA - Federal Emergency Management Agency  
 EPA - U.S. Environmental Protection Agency  
 FDA - U.S. Food and Drug Administration

\* Indicates locations evaluated out-of-sequence from the November 18, 2003 exercise.  
 \*\* Indicates Evaluators of the Remedial Exercise.

<u>EVALUATION SITE</u>	<u>EVALUATOR</u>	<u>ORGANIZATION</u>
<u>STATE OF NEBRASKA</u>		
State EOC	** David Smith – TL	FEMA
Dose Assessment/Field Team Coordination	Garianne Howard - TL	EPA
Field Monitoring Team – CNS	Reggie Cope	FDA
Joint Information Center\ Media Release Center	** Norm Valentine	FEMA
Emergency Operation Facility/ Field Command Post (GAR)	Jane Young	FEMA
University of Nebraska Medical Center *	Garianne Howard - TL Norm Valentine	EPA FEMA
Washington County EOC	** Sharron McDuffie – TL	FEMA
	** Audie Canida	FEMA
	Rex Jennings	FEMA
Blair Rescue Squad *	Joe Schulte	FEMA
<u>STATE OF IOWA</u>		
Missouri Valley Ambulance *	Joe Schulte	FEMA
Denison Mass Care *	Joe Schulte	FEMA

### **Appendix 3 - Exercise Criteria and Extent of Play Agreement**

This appendix lists the exercise criteria, which were scheduled for demonstration during the Fort Calhoun Nuclear Station plume and relocation, reentry and return exercise on November 18, 2003, and out-of-sequence drills on September 4, 2003 and November 19, 2003.

Site specific information was negotiated in the extent-of-play agreements approved by FEMA Region VII for the State of Nebraska on February 20, 2003.

The exercise criterion, contained in FEMA Exercise Evaluation Areas and Criterion as published in the Federal Register September 12, 2001 and April 25, 2002, represent a functional translation of planning standards and evaluation criteria of NUREG-0654/FEMA-REP-1, Rev. 1, "Criteria for the Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," November 1980.

Because the exercise criteria are intended for use at all nuclear power plant sites and because of variations among offsite plans and procedures, an extent-of-play agreement was prepared by FEMA Region VII and provided to the State of Nebraska for further clarification of expected demonstration of the criteria.

Listed below are the REP criteria scheduled for demonstration during this exercise and the site-specific extent-of-play agreement, if applicable.

#### **EXERCISE CRITERION and EXTENT-OF-PLAY**

**Criterion 1a1 - Mobilization:** All telephone calls to mobilize personnel or place them on standby must actually be made. Pre-positioning of staff is not authorized, except by written approval from this office prior to the exercise. Your request must include which staff positions will be pre-positioned and which facility(ies) will be affected. Demonstration of an actual shift change is not required.

The demonstrations at the University of Nebraska Medical Center and the Blair Rescue Squad will occur out of sequence and all personnel at these facilities may be pre-positioned.

**Criterion 1b1 - Facilities:** Successful demonstration of this criterion will place facilities under the new guidance that will only require reevaluation should they change or have modifications made to them.

**Criterion 1c1 – Direction and Control:** Not modified by site-specific extent of play.

**Criterion 1d1 - Communications:** The evaluators will request copies of all messages and logs of message traffic at each site.

**Criterion 1e1 – Equipment and Supplies to Support Operations:** Verification of dosimetry and KI supplies will occur as applicable to ensure that all locations have at least the minimum numbers of supplies required by the plans.

**Criterion 2a1 – Emergency Worker Exposure Control:** Not modified by site-specific extent of play.

**Criterion 2b1 – Radiological Assessment and PARs and PADs for the Plume Phase of the Emergency:** Not modified by site-specific extent of play.

**Criterion 2b2 – Radiological Assessment and PARs and PADs for the Plume Phase of the Emergency:** Not modified by site-specific extent of play.

**Criterion 2c1 – Protective Action Decisions for the Protection of Special Populations:** Not modified by site-specific extent of play.

**Criterion 3a1 – Implementation of Emergency Worker Exposure Control:** Not modified by site-specific extent of play.

**Criterion 3b1 – Implementation of KI Decision:** Not modified by site-specific extent of play.

**Criterion 3c1 – Implementation of Protective Actions for Special Populations - EOCs:** Telephone calls to special facilities and individuals with special needs may actually be made or simulated. Actual telephone calls must be made to at least 1/3 of the transportation providers, including special resources for disabled individuals, during this exercise. However, all facilities, individuals with special needs, and transportation providers required to be notified must be clearly identified and the actual or simulated contacts appropriately documented. Telecommunications Device for the Deaf (TDD) calls to the hearing impaired population will be simulated and appropriately documented.

**Criterion 3c2 - Implementation of Protective Actions for Special Populations -Schools:** During the emergency phase of the actual exercise November 18, 2003, all appropriate actions (e.g., notifications, EAS messages, etc.) must be taken or simulated for any public or private schools or day care facilities affected by protective action recommendations. Telephone calls must be actually made and all contacts should be appropriately documented. The actual telephone calls should be more like a Communications Check versus relaying the Exercise message to simplify and reduce the chance of false alarms.

**Criterion 3d1 – Implementation of Traffic and Access Control:** Deployment of traffic and access control personnel to assigned locations will be simulated. However, the locations where traffic and access control would be established must be appropriately documented. Staffing of traffic and access control points must be appropriately coordinated with all involved jurisdictions. At least two individuals who would perform traffic and access control must be available at the Washington County EOC for interviews. During the interviews these individuals will be expected to demonstrate knowledge of their roles and responsibilities concerning traffic and access control, as well as appropriate knowledge concerning dosimetry and potassium iodide procedures.

**Criterion 3d2 – Implementation of Traffic and Access Control:** Not modified by site-specific extent of play.

**Criterion 4a1 – Plume Phase Field Measurements and Analyses:** Radiological detection instruments, equipment, and protective clothing, as annotated in Annex C of the Nebraska State Plan, should be available for the demonstrations.

**Criterion 4a2 – Plume Phase Field Measurements and Analyses:** Not modified by site-specific extent of play.

**Criterion 4a3 – Plume Phase Field Measurements and Analyses - Measurements:** Each of the deployed field monitoring teams must take radiation measurements at a sufficient number of locations to identify the plume. The evaluator will interview the field teams as to the procedures for the physical turn over of the samples (to include transfer of custody forms) to the agency designated by NEMA to act as courier.

**Criterion 5a1 - Activation of the Prompt Alert and Notification System - Timely:** An evaluator will be assigned at the National Weather Service (NWS) and the KFAB EAS radio station to observe the procedures for broadcasting the messages. We expect to see actual receipt of the messages from the appropriate County or State EOCs. Following receipt at the NWS and the EAS station, procedures to broadcast the message must be fully demonstrated up to the point of transmission. Actual broadcast of the messages or EAS test messages are not required. The FEMA evaluator will remain at the EAS station until the termination of the exercise to observe receipt and broadcast procedures for all EAS messages and Public Information messages. Copies of all EAS messages and Public Information messages will be requested from the facility. The evaluator at the NWS will remain there only until after the initial EAS has been broadcast.

Actual contact with the NWS and EAS station and the dissemination of the initial message to the NWS and the radio station must be demonstrated. The procedures for siren activation must be demonstrated up to the point of actual activation. Actual siren activation may be simulated.

**Criterion 5a3 - Activation of the Prompt Alert and Notification System:** To be demonstrated only if there is a failure in the primary alert and notification sequence.

**Criterion 5b1 – Emergency Information and Instructions for the Public and the Media:**

Media briefings will be conducted at the Joint Information Center (JIC)\Media Release Center (MRC) located at the Omaha Public Power District (OPPD) Energy Plaza Building 444 S. 16<sup>th</sup> Street Mall, in Omaha, Nebraska. The rumor control staff at the JIC\MRC must demonstrate the capability to respond to an average of approximately six calls per hour per operator throughout the emergency phase.

The staff should demonstrate the capability to monitor the contents of broadcast media coverage of the emergency situation. Any trends in rumors identified by the rumor control staff, must be addressed by the State in news releases or in media briefings. Therefore, appropriate demonstration will require close coordination between utility staff and state public information staff at the JIC\MRC. At least one message should address a false or misleading rumor.

**Criterion 6b1 – Monitoring and Decontamination of Emergency Worker Equipment:**

This criterion will be demonstrated at a later date.

**Criterion 6d1 – Transportation and Treatment of Contaminated injured individuals:** The Blair Rescue Squad will demonstrate the transportation of a contaminated injured person. The use of flashing lights and sirens are not necessary during this exercise. A non-specialized vehicle may be used to transport the simulated victim to the medical facility. However, prior to transport, communications between the ambulance and the receiving medical facility must be demonstrated as in the discussion in the generic extent of play.

The ambulance or non-specialized vehicle and crew must be monitored before release back into service. It is not necessary to demonstrate actual decontamination of the ambulance or non-specialized vehicle and crew; however, the crew must be knowledgeable of where this would be accomplished.

The University of Nebraska Medical Center (UNMC) will demonstrate the hospital portion on November 19, 2003.

## Appendix 4 - Exercise Scenario

This appendix contains a summary of the simulated sequence of events - Exercise Scenario - that was used as the basis for invoking emergency response actions by OROs in the Fort Calhoun Nuclear Station exercise conducted on November 18, 2003. The times listed below are anticipated event times from the scenario. The times that offsite events actually occurred during the exercise are included in Table 1, Exercise Timeline, of this report.

This original exercise scenario was submitted by Omaha Public Power District on August 29, 2003, and approved by FEMA Region VII on October 15, 2003.

During the exercise, controllers from Omaha Public Power District gave “inject messages,” containing scenario events and/or relevant data, to those persons or locations who would normally receive notification of such events. These inject messages were the method used for invoking response actions by OROs.

### SCENARIO SUMMARY:

- 0700            **INITIAL CONDITIONS:** The Plant is operating at 100% power. AC-1B Bearing Water Pump is out of service for motor replacement. The motor is scheduled to be returned on November 20, 2003.
- 0700            **ALERT** is caused by an earthquake felt in the plant. The strong motion seismic event in progress alarm is actuated. Visible damage is done to the intake structure resulting in windows breaking and cracks to form in the west wall. EAL 10.4 ‘Tornado or Earthquake causing damage to vital areas’ is met..
- 0840            A **SITE AREA EMERGENCY** is called when a security officer reports a large section of the ceiling above the Spent Fuel Pool has fallen into the Spent Fuel Pool. EAL 7.2, ‘Major irradiated fuel accident’ is met. Offsite release begins.
- 1000            A **GENERAL EMERGENCY** should be declared due to an aftershock that can be felt in the plant. A second large section of the ceiling above the Spent Fuel Pool falls into the Pool and damages fuel assemblies as indicated by rising Area Monitor and Stack Process Monitor readings.
- 1045            Electrical Bus 1A3 is lost. Smoke and fire detectors alarm in the East Switchgear Room Zones 7 & 8. All remaining Raw Water Pumps AC-10A and AC-10C are lost. Entry conditions for AOP-18 are met.
- 1200/1300      Secure from Plume Phase activities/Commence Relocation, Reentry and Return Phase.