



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION IV
1600 E. LAMAR BLVD.
ARLINGTON, TX 76011-4511

February 1, 2018

Ms. Mary J. Fisher, Vice President-
Energy Production & Nuclear Decommissioning
Omaha Public Power District
Fort Calhoun Station
Mail Stop FC-2-4
9610 Power Lane
Blair, NE 68008

SUBJECT: FORT CALHOUN STATION – NRC INSPECTION REPORT 05000285/2017-011

Dear Ms. Fisher:

This letter refers to an inspection conducted from October 16, 2017 through January 18, 2018, at the permanently shut down Fort Calhoun Station. The purpose of the inspection was to determine whether emergency preparedness capabilities were being maintained in accordance with the U.S. Nuclear Regulatory Commission (NRC) requirements. The inspection included independent reviews of the adequacy of emergency preparedness exercise scenarios, observation of the performance of the emergency response organization during a biennial exercise, independent evaluation of performance deficiencies (weaknesses) occurring during the biennial exercise, and an evaluation of the thoroughness of the post-exercise critiques of exercise performance conducted by Fort Calhoun Station staff. The inspection results were discussed with members of your staff at the conclusion of the on-site inspection.

During this inspection, NRC staff examined activities conducted under your license as they relate to public health and safety to confirm compliance with the Commission's rules and regulations, and with the conditions of your license. Within these areas, the inspection consisted of selected examination of procedures and representative records, observations of activities, and interviews with personnel. The enclosed report presents the results of this inspection. An onsite exit meeting was conducted on October 20, 2017. Based on this meeting, additional material was provided by plant staff for inspection, with the last information being provided January 18, 2018. A final exit meeting was conducted on January 18, 2018, with Mr. B. Blome and other members of your staff. No violations were identified and no response to this letter is required.

In accordance with 10 CFR 2.390 of the NRC's "Agency Rules of Practice and Procedure," a copy of this letter, its enclosure, and your response, if you choose to provide one, will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system Agencywide Documents Access Management System (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

To the extent possible, your response should not include any personal privacy or proprietary, information so that it can be made available to the public without redaction.

If you have any questions concerning this inspection, please contact Sean D. Hedger, Emergency Preparedness Inspector, at 817-200-1556, or the undersigned at 817-200-1156.

Sincerely,

/RA/

Heather J. Gepford, PhD, CHP, Chief
Plant Support Branch 2
Division of Reactor Safety

Docket No. 50-285
License No. DPR-40

Enclosure:
Inspection Report 05000285/2017-011
w/Attachment: Supplemental Information

U.S. NUCLEAR REGULATORY COMMISSION

REGION IV

Dockets: 05000285

Licenses: DPR-40

Report: 05000285/2017-011

Licensee: Omaha Public Power District

Facility: Fort Calhoun Station

Location: 9610 Power Lane
Blair, Nebraska

Dates: October 16, 2017 through January 18, 2018

Inspectors: S. Hedger, Emergency Preparedness Inspector
J. Melfi, Project Engineer, Division of Reactor Projects
M. Norris, Team Leader, Division of Preparedness and Response,
NSIR

Approved By: Heather J. Gepford, PhD, CHP
Chief, Plant Support Branch 2
Division of Reactor Safety

EXECUTIVE SUMMARY

Fort Calhoun Station
NRC Inspection Report 05000285/2017-011

This U.S. Nuclear Regulatory Commission (NRC) inspection was a routine, announced inspection of emergency preparedness activities at the Fort Calhoun Station (FCS) under Inspection Report 05000285/2017-011. In summary, the licensee was maintaining required emergency preparedness capabilities in accordance with procedures, license requirements, and regulations.

Decommissioning Emergency Preparedness Scenario Review and Exercise Evaluation

- The inspectors observed an emergency preparedness exercise conducted on October 18, 2017 and concluded there continued to be reasonable assurance that the licensee's emergency response organization was capable of taking adequate measures to protect the health and safety of the public. (Section 1.2)

REPORT DETAILS

Summary of Plant Status

On June 24, 2016, Omaha Public Power District (OPPD), the licensee formally notified the NRC by letter of its intent to permanently cease operations of Fort Calhoun Station (FCS), (ADAMS Accession ML16176A213). By letter dated November 13, 2016, OPPD notified the NRC that it had permanently ceased power operations at FCS on October 24, 2016 and certified pursuant to 10 CFR 50.82(a)(1)(ii), that as of November 13, 2016, all fuel had been permanently removed from the FCS reactor vessel and placed into the FCS spent fuel pool (ADAMS Accession ML16319A254). On December 28, 2016, the NRC informed the licensee that it was no longer under Inspection Manual Chapter (IMC) 0305, "Operating Reactor Assessment Program," IMC 0608, "Performance Indicator Program," and IMC 2515, "Light-Water Reactor Inspection Program" when conducting oversight activities and assessing site performance. The licensee was informed that the NRC's oversight of licensed activities under decommissioning would be conducted under the provisions in IMC 2561, "Decommissioning Power Reactor Inspection Program."

The licensee submitted its Post-Shutdown Decommissioning Activities Report (PSDAR) on March 30, 2017, (ADAMS Accession ML17089A759). The PSDAR is not a licensing action and therefore is not approved by the NRC; however, the NRC reviews the report. On April 14, 2017, the NRC issued the public meeting notice for the PSDAR meeting (ADAMS Accession ML17117A557), which was held on May 31, 2017. The transcript of the public meeting is available on the NRC's Website at <http://www.nrc.gov/reading-rm/adams.html>, under ADAMS Accession No. ML17160A394.

The licensee selected the SAFSTOR decommissioning option, as described in the PSDAR. The licensee plans to continue in SAFSTOR until the spent fuel is transferred to the U.S. Department of Energy in 2058, at which time decommissioning activities will commence. The deferred decontamination and dismantling activities are scheduled to be conducted between 2059 through 2066, to support the termination of the operating license within the required 60-year time period.

1. Decommissioning Emergency Preparedness Scenario Review and Exercise Evaluation (82401)

1.1 Inspection Scope

The licensee submitted the preliminary exercise scenario for the October 18, 2017, biennial exercise to the NRC on August 18, 2017, in accordance with the requirements of 10 CFR 50, Appendix E, IV.F(2)(b). The inspectors performed an in-office review of the proposed scenario to determine whether it would acceptably test the major elements of the licensee's emergency plan and provide opportunities for the emergency response organization to demonstrate key skills and functions. The inspectors communicated with staff at FEMA Region VII to determine whether the preliminary scenario supported the FEMA exercise evaluation objectives. A discussion between licensee staff and the inspectors regarding comments on the preliminary exercise scenario took place on September 18, 2017.

Three inspectors observed the exercise to determine whether the emergency response organization was proficient at the key emergency response skills and capable of implementing the licensee's decommissioning Emergency Plan. The inspectors also observed the licensee's post-exercise critique to determine whether the licensee was appropriately identifying and correcting performance weaknesses and other problems.

1.2 Observations and Findings

The inspectors reviewed FCS's scenario for the October 18, 2017, exercise, which included simulations of a collapse of the spent fuel bridge mast into the spent fuel pool (SFP) while moving spent fuel; unisolable SFP leakage into containment via the fuel transfer canal; a diesel fire pump discharge header rupture; and a SFP level instrument malfunction. The inspectors determined that the scenario events provided the site emergency response organization opportunities to demonstrate four emergency classifications, one protective action recommendation determination, five notifications to appropriate offsite authorities, the protection of emergency workers in the protected area, and preparations for repairs to both an electrical-motor driven fire pump and to SFP level instrumentation. Together, these simulated events provided a basis to determine whether the emergency response organization remained capable of implementing appropriate measures to protect the health and safety of the public.

The inspectors observed the response of FCS's emergency response organization during the October 18, 2017, exercise. The licensee demonstrated timely recognition of emergency conditions, timely and accurate notifications to offsite authorities, took appropriate measures to protect emergency workers, and made preparations to dispatch emergency workers to mitigate the event. Throughout the simulated emergency the emergency workers demonstrated a good knowledge of the site emergency plan and procedures, quickly recognized events requiring emergency response, and properly prioritized worker protection and in-plant mitigation efforts. The inspectors concluded that the FCS emergency response organization demonstrated that it was capable of taking appropriate actions to protect the health and safety of the public.

The inspectors reviewed three drill and exercise evaluation reports issued between December 2016 and August 2017 to identify performance and facility problems identified by the licensee. The inspectors compared the performance during the October 18, 2017, exercise to previous performance to verify that problems had been appropriately corrected. The inspectors did not identify any recurring problems.

The inspectors observed the licensee's post-exercise critique on October 18, 2017, and the subsequent management briefing conducted on October 20, 2017, to determine whether FCS identified the performance weaknesses and facility problems which occurred during the October 18, 2017 exercise. The inspectors compared the problems identified by the licensee with those problems independently identified by the inspectors. Additional information regarding problem identification was provided to the inspectors following the licensee management briefing. The inspectors concluded that FCS identified performance weaknesses and facility problems which occurred during the exercise and had (would) appropriately entered them into the corrective action process.

1.3 Conclusions

The inspectors observed an emergency preparedness exercise conducted on October 18, 2017, and concluded there continued to be reasonable assurance that the licensee's emergency response organization was capable of taking adequate measures to protect the health and safety of the public.

4. **Exit Meeting**

On September 18, 2017, the inspectors discussed the in-office review of the preliminary scenario for the October 18, 2017, biennial exercise, submitted August 18, 2017, with Mr. J. Fickbohm, Manager, Emergency Planning. The licensee acknowledged the issues presented.

On October 20, 2017, the inspectors presented the inspection results to Ms. M. Fisher, Senior Director for Decommissioning, and other members of the licensee's staff. The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

On January 18, 2018, the inspectors presented the final inspection results to Mr. B. Blome, and other members of the licensee's staff. The inspectors asked the licensee whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

SUPPLEMENTAL INSPECTION INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

J. Fickbohm, Manager, Emergency Planning
M. Fisher, Senior Director for Decommissioning
C. Cameron, Regulatory Affairs and Licensing
T. Uehling, Plant Manager
B. Blome, Director, Regulatory Affairs and Licensing

INSPECTION PROCEDURES USED

IP 82401 Decommissioning Emergency Preparedness Scenario Review and Exercise
Evaluation

ITEMS OPENED, CLOSED, AND DISCUSSED

Opened and Closed

None

Discussed

None

FORT CALHOUN STATION – NRC INSPECTION REPORT 05000285/2017-011 – DATED
FEBRUARY 1, 2018.

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ADAMS ACCESSION NUMBER: ML18031A712

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