

March 26, 2002

Mr. Ross T. Ridenoure  
Division Manager - Nuclear Operations  
Omaha Public Power District  
Fort Calhoun Station FC-2-4 Adm.  
Post Office Box 550  
Fort Calhoun, NE 68023-0399

SUBJECT: FORT CALHOUN STATION, UNIT NO. 1 - ISSUANCE OF AMENDMENT  
(TAC NO. MB3652)

Dear Mr. Ridenoure:

The Commission has issued the enclosed Amendment No. 205 to Facility Operating License No. DPR-40 for the Fort Calhoun Station, Unit No. 1. The amendment consists of changes to the Technical Specifications (TS) in response to Omaha Public Power District's (OPPD) application dated December 14, 2001, as supplemented by letter dated March 21, 2002.

The amendment revises Technical Specification 3.7(4) to allow the surveillance test to be performed on a refueling frequency. By letter dated March 21, 2002, OPPD withdrew its request related to changes to TS 3.7(2)d. The Commission has filed the enclosed Notice of Partial Withdrawal of Application for Amendment to Facility Operating License with the Office of the Federal Register for publication.

In addition, OPPD requested the staff to review documentation to correct the docket concerning inconsistencies in the 1973 Fort Calhoun Station (FCS) Safety Evaluation Report (SER) associated with the 13.8 kV transmission line capability associated with TS 3.7(4).

A copy of the related Safety Evaluation is also enclosed. The Notice of Issuance will be included in the Commission's next biweekly *Federal Register* notice.

Sincerely,

/RA/

Alan B. Wang, Project Manager, Section 2  
Project Directorate IV  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket No. 50-285

Enclosures: 1. Amendment No. 205 to DPR-40  
2. Safety Evaluation  
3. Notice of Withdrawal

cc w/encls: See next page

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OMAHA PUBLIC POWER DISTRICT

DOCKET NO. 50-285

FORT CALHOUN STATION, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 205  
License No. DPR-40

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by the Omaha Public Power District (the licensee) dated December 14, 2001, as supplemented by letter dated March 21, 2002, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this license amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, Facility Operating License No. DPR-40 is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 3.B. of Facility Operating License No. DPR-40 is hereby amended to read as follows:

B. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 205, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. The license amendment is effective as of its date of issuance and shall be implemented within 30 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

*/RA/*

Stephen Dembek, Chief, Section 2  
Project Directorate IV  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical  
Specifications

Date of Issuance: March 26, 2002

ATTACHMENT TO LICENSE AMENDMENT NO. 205

FACILITY OPERATING LICENSE NO. DPR-40

DOCKET NO. 50-285

Replace the following page of the Appendix A Technical Specifications with the attached revised page. The revised page is identified by amendment number and contains vertical lines indicating the areas of change.

REMOVE

3-60

INSERT

3-60

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 205 TO FACILITY OPERATING LICENSE NO. DPR-40  
OMAHA PUBLIC POWER DISTRICT  
FORT CALHOUN STATION, UNIT NO. 1  
DOCKET NO. 50-285

1.0 INTRODUCTION

By application dated December 14, 2001, as supplemented by letter dated March 21, 2002, Omaha Public Power District (OPPD) requested changes to the Technical Specifications (Appendix A to Facility Operating License No. DPR-40) for the Fort Calhoun Station, Unit No. 1 (FCS). The requested changes would revise Technical Specifications (TS) 3.7(2)d and 3.7(4) to allow these surveillance tests to be performed on a refueling frequency. By letter dated March 21, 2002, OPPD withdrew the request related to TS 3.7(2)d. In addition, OPPD requested the staff to review documentation to correct the docket concerning inconsistencies in the 1973 FCS Safety Evaluation Report (SER) associated with the 13.8 kV transmission line capability associated with TS 3.7(4). The supplemental letter dated March 21, 2002, provided additional information that clarified the application, did not expand the scope of the application as originally noticed, and did not change the staff's original proposed no significant hazards consideration determination as published in the *Federal Register* on January 22, 2002 (67 FR 2927).

2.0 EVALUATION

2.1 13.8 kV Transmission Line

2.1.1 TS 3.7(4)

This surveillance currently requires that the 13.8 kV transmission line be energized and loaded to the minimum shutdown requirements at each refueling outage. The proposed change revises the surveillance interval for the 13.8 kV transmission line. The current wording of "at each refueling outage" will be changed to "on a refueling frequency." FCS TS 3.0.2, "Surveillance Interval," defines the refueling frequency as at least once per 18 months plus 25 percent. Therefore, the nominal surveillance interval for "on a refueling frequency" or "at each refueling outage" is 18 months for either case. In fact, the new requirement is more restrictive because if the plant was to have an extended refueling cycle, the maximum allowed time between tests allowed by the proposed TS change would be 22.5 months (18 months plus 25 percent) versus at each refueling outage which could be greater than 22.5 months.



The current TS wording restricts performing this test to refueling outages. The TS 3.7(4) surveillance test demonstrates that the 13.8 kV line supply can provide power to one battery charger, one charging pump, and one group of pressurizer heaters. The performance of this surveillance test has, on occasion, become "critical-path" during the refueling outage. The realignment of buses and circuits needed to perform this test, prevents performance of other TS required surveillances. The loading of the actual plant equipment necessitated that the testing be performed during the refueling outage. The method of testing the 13.8 kV line was recently changed (2001 refueling) from using actual plant equipment to testing with a load bank. By using a load bank this testing can now be performed while the plant is on-line. However, as a precaution, when this surveillance is performed online the containment spray pump SI-3A will be removed from service. Removal of containment spray pump load from the affected 480 VAC bus ensures that in the event that emergency diesel operation is required, the load induced by the load bank supplied bus 1B3C will not cause an overload and unanalyzed condition. During the time pump SI-3A is out of service, the plant will be in a seven-day limiting condition for operation. The licensee states that the test typically takes four hours to complete. Throughout the test, the proper voltage, current and phasing will be verified to be within the surveillance tests acceptance criteria. The proposed TS change will allow the 13.8 kV line testing to be performed at any time within the nominal 18-month period. Therefore, this change could reduce refueling outage length.

This proposed change does not modify any equipment or system configuration at FCS. It does not alter the conduct of operation at FCS. It does not change the nominal surveillance interval for the affected equipment because the wording change does not impact the actual length of the interval. The proposed change does allow the tests to be performed at different and less prescriptive times than the current wording, and has the potential to reduce the length of the refueling outage. The licensee has stated that this test can be performed safely during power operation. In addition, the 13.8 kV transmission line is not credited in the licensing basis for mitigation of design basis accidents and no limiting conditions of operation exist for this line. The staff has concluded that since the test is short in duration and only one train of containment spray is disabled during the test, the test does not pose any threat to the operation or safety of the plant, therefore, the proposed change is acceptable.

#### 2.1.2 13.8 kV Transmission Line Clarification

The licensee has noted that they have determined that there were differences in the FCS design basis for the 13.8 kV - 480 V service and the description of this capability in the original FCS SER. The present 13.8 kV transmission line surveillance requirement was implemented to address issues raised during the initial licensing of FCS. Prior to December 1971, the Atomic Energy Commission (AEC) requested information on the acceptability of the 345 kV transmission line passing over the 161 kV transmission line. In response to the concerns, OPPD provided the following:

"...the existing construction power supply (13.8 kV - 480 V) will be retained after plant startup to provide another source of emergency power in the event both diesel generators fail; the source of this power supply is from the 161 kV system, outside the switchyard breaker which feeds the plant station service. The construction power supply will be modified during the first operating cycle to relocate some portions of the system and eliminate its susceptibility to failure due

to the overhead crossover of the 345 kV and 161 kV lines. The 13.8 kV source will have adequate capacity to safely shutdown the plant."

Previously, OPPD proposed to delete Technical Specification 3.7(4) as described in Reference 9.7 of the December 14, 2001, application. However, questions arose over the design bases for the 13.8 kV transmission line and the implied surveillance requirements. The FCS SER implied that the 13.8 kV transmission line would provide power to the 4.16 kV service buses. This was described in the SER as follows:

"After considering the potential for this accident, OPPD stated that they would convert a 13.8 kV temporary construction line and make it available to the 4.16 kV service busses prior to extended operation of the plant at appreciable power."

OPPD has performed a review of its docketed correspondence and was not able to locate any information stating or inferring that the 13.8 kV transmission line would supply the 4.16 kV buses. All 1970-1972 correspondence between OPPD and the architect engineer, Gibbs-Hill, was directed towards connecting the 13.8 kV temporary construction line to the 480 buses. OPPD, however, did locate information relevant to inspections conducted by Mr. R. F. Warnick of the NRC on September 18 and 19, 1973, and June 17-21, 1974, providing the status of the implementation of the modification to the temporary construction power supply power (13.8 kV - 480 V) to provide alternate power to 480 V buses. The inspection conducted by Mr. R. F. Warnick on November 18-21, 1974, indicated that the "Emergency Power Supply - 13.8 kV Construction Line, ...was energized on July 12, 1974, and is available for use should the need ever arise. This item is closed."

Based on the information provided, while the staff in 1973 may have intended that the 13.8 kV line be made available to the 4.16 kV service buses, it was not constructed that way nor is the 13.8 kV line capable of supplying post-design basis accident loads. The power from the temporary 13.8 kV construction line to the 480 kV buses was intended to provide some defense-in-depth because the 345kV and 161 kV lines cross over each other. While the 13.8 kV line is not credited for in the licensing basis for mitigation of any design basis accident, the Updated Safety Analysis Report does state that the 13.8 kV line has adequate capacity to maintain the plant in a safe shutdown condition. TS surveillance 3.7(4) assures that the 13.8 kV line has adequate capacity to safely shutdown the plant and maintain the plant in a safe shutdown (hot shutdown) condition. Therefore, the 13.8 kV line is capable of supplying a small number of 480V loads (one battery charger, one charging pump, and one group of pressurizer heaters). The licensee has stated that this minimum set of equipment can shutdown and maintain the plant in a safe shutdown condition and that this was the 13.8 kV line's intended use. The staff has found no evidence contrary to this position. While there is no limiting condition of operation associated with this line any failure would require a justification for continued operation while this capability was being repaired. Therefore, the staff agrees that the staff's FCS SER incorrectly stated that the 13.8 kV line was to be connected to the 4.16 kV service buses.

### 3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Nebraska State official was notified of the proposed issuance of the amendment. The State official had no comments.

#### 4.0 ENVIRONMENTAL CONSIDERATION

The amendment changes surveillance requirements. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration and there has been no public comment on such finding (67 FR 2927). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

#### 5.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: A. Wang

Date: March 26, 2002

UNITED STATES NUCLEAR REGULATORY COMMISSION

OMAHA PUBLIC POWER DISTRICT

DOCKET NO. 50-285

NOTICE OF PARTIAL WITHDRAWAL OF APPLICATION FOR  
AMENDMENT TO FACILITY OPERATING LICENSE

The U.S. Nuclear Regulatory Commission (the Commission) has granted the request of Omaha Public Power District (the licensee) to partially withdraw its December 14, 2001, application for proposed amendment to Facility Operating License No. DPR-40 for the Fort Calhoun Station, Unit No. 1, located in Washington County, Nebraska.

The purpose of the licensee's amendment request was to revise Technical Specifications (TS) 3.7.2(d) and 3.7(4) to allow the surveillance tests to be performed on a refueling frequency outside of a refueling outage, and (2) correct the docket concerning inconsistencies in the 1973 Fort Calhoun Station Safety Evaluation Report associated with the 13.8 kV transmission line capability. By letter dated March 21, 2002, the licensee withdrew its request related to the changes to TS 3.7(2)d.

The Commission had previously issued a Notice of Consideration of Issuance of Amendment published in the FEDERAL REGISTER on January 22, 2002 (67 FR 2927). However, by letter dated March 21, 2002, the licensee partially withdrew the proposed change.

For further details with respect to this action, see the application for amendment dated December 14, 2001, and the licensee's letter dated March 21, 2001, which partially withdrew the application for license amendment. Documents may be examined, and/or copied for a fee, at the NRC's Public Document Room (PDR), located at One White Flint North, 11555 Rockville Pike (first floor), Rockville, Maryland. Publicly available records will be accessible electronically from the Agencywide Documents Access and Management Systems (ADAMS) Public

Electronic Reading Room on the internet at the NRC Web site, <http://www.nrc.gov/reading-rm/adams/html>. Persons who do not have access to ADAMS or who encounter problems in accessing the documents located in ADAMS, should contact the NRC PDR Reference staff by telephone at 1-800-397-4209, or 301-415-4737 or by email to [pdr@nrc.gov](mailto:pdr@nrc.gov).

Dated at Rockville, Maryland, this 26<sup>th</sup> day of March 2002.

FOR THE NUCLEAR REGULATORY COMMISSION

*/RA/*

Alan Wang, Project Manager, Section 2  
Project Directorate IV  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation