



10 CFR 50.90
10 CFR 50.82

LIC-21-0005
August 3, 2021

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555-0001

Fort Calhoun Station, Unit No. 1
Renewed Facility License No. DPR-40
NRC Docket No. 50-285

Subject: License Amendment Request (LAR) 21-01; Revised Fort Calhoun Station License to Add License Condition 3.D to include License Termination Plan Requirements.

References:

1. Letter from OPPD (T. Burke) to USNRC (Document Control Desk), "Certification of Permanent Removal of Fuel from the Reactor", dated November 13, 2016 (LIC-16-0074) (ML16319A254)
2. Letter from OPPD (M. Fisher) to USNRC (Document Control Desk), "Fort Calhoun Station, Unit No. 1, Post-Shutdown Decommissioning Activities Report", dated March 30, 2017 (LIC-17-0033) (ML17089A759)
3. Letter from OPPD (M. Fisher) to USNRC (Document Control Desk), "Fort Calhoun Station Irradiated Fuel Management Plan", dated March 31, 2017 (LIC-17-0031) (ML17093A594)

In accordance with the provisions of 10 CFR Part 50.90, the Omaha Public Power District (OPPDP), is submitting a request for an amendment to the 10 CFR Part 50 License for Fort Calhoun Station (FCS), Unit No. 1. The proposed amendment would revise the 10 CFR Part 50 License to reflect the requirements for control of the License Termination Plan (LTP) by adding License Condition 3.D.

By letter on November 13, 2016 (Reference 1), FCS provided certification of the permanent removal of fuel from the Reactor Vessel to the NRC in accordance with 10 CFR Part 50.82(a)(1)(i) and (ii). On March 30, 2017 (Reference 2), FCS submitted the Post-Shutdown Decommissioning Activities Report (PSDAR) and on March 31, 2017 (Reference 3), FCS submitted an updated Irradiated Fuel Management Plan (IFMP).

The enclosed License Amendment Request (LAR) proposes to approve the License Termination Plan (LTP) and add License Condition 3.D that establishes the criteria for determining when changes to the LTP require prior NRC approval. The LTP demonstrates that the remaining decommissioning activities will be performed in accordance with 10 CFR 50, will not be adverse to the common defense and security or to the health and safety of the public, and will not have a significant adverse effect on the quality of the environment.

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Enclosure 1 provides a description and evaluation of the changes proposed in this LAR and the proposed wording change to the license. Enclosure 2 contains the LTP and supporting information. In accordance with 10 CFR 50.82(a)(9)(i), the LTP that is being submitted to the NRC at least two years prior to planned license termination, and upon NRC approval, will become a supplement to the FCS Defueled Safety Analysis Report (DSAR).

Omaha Public Power District (OPPD) has evaluated the proposed License Amendment against the criteria of 10 CFR 50.92 and determined that no significant hazards consideration is involved.

The proposed changes have been reviewed and approved by the FCS Independent Safety Reviewer (ISR).

In accordance with 10 CFR Part 50.91, a copy of this application, with attachments, is being provided to the designated State of Nebraska official.

There are no regulatory commitments contained within this letter.

OPPD requests approval of the proposed license amendment by August 1, 2023. Once approved, the amendment will be implemented within ninety (90) days following the approval by the NRC.

If you should have any questions regarding this submittal or require additional information, please contact Mrs. Andrea K. Barker – Regulatory Assurance and Emergency Planning Manager at (531) 226-6051.

I declare under penalty of perjury that the foregoing is true and correct. Executed on August 3, 2021.

Respectfully,

DocuSigned by:


C185DDBBB12A4BA...
Mary J. Fisher,

Vice President, Energy Production & Nuclear Decommissioning

MJF/cac/dmp

Enclosure 1: OPPD's Evaluation of the Proposed Change

Enclosure 2: OPPD's License Termination Plan

- c: S.A. Morris, NRC Regional Administrator, Region IV
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OPPD's Evaluation of the Proposed Change

License Amendment Request (LAR) 21-01; Revised Fort Calhoun Station License to Add License Condition 3.D to include License Termination Plan Requirements.

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- 1. Mark-up of 10 CFR Part 50 License
- 2. "Clean" 10 CFR Part 50 License

1.0 SUMMARY DESCRIPTION

The Omaha Public Power District (OPPD) hereby requests an amendment to Fort Calhoun Station, Unit No. 1 (FCS) Renewed Facility License No. DPR-40.

Fort Calhoun Station, Unit 1 (FCS), is currently undergoing active decommissioning, and all spent fuel has been transferred to the onsite FCS Independent Spent Fuel Storage Installation (ISFSI). As a result, OPPD proposes to amend Renewed Facility License DPR-40, to add License Condition 3.D, "License Termination Plan (LTP)."

10 CFR Part 50 License change:

The proposed wording for License Condition 3.D is contained in Attachment 1 of this letter.

2.0 DETAILED DESCRIPTION

OPPD proposes to amend the licenses to include a provision to allow OPPD to make changes to the approved LTP without prior NRC approval, similar to the flexibility afforded to licensees in making changes to the facilities or procedures, as described in the DSAR.

The change method includes nine change criteria elements. Thus, OPPD proposes to amend the FCS Unit 1 licenses to incorporate a new license condition, License Condition 3.D as follows:

- (1) Increases the probability of making a Type 1 decision error, as that term is described in the NRC's NUREG-1575, "Multi-Agency Radiation Survey and Site Investigation Manual", Revision 1 (August 2000) (MARSSIM)(Reference 6.1), above the level stated in the LTP;
- (2) Increases the radionuclide-specific derived concentration guideline levels (DCGL), as that term is described in the MARSSIM, and related minimum detectable concentrations;
- (3) Increases the radioactivity level, relative to the applicable DCGL, at which investigation occurs;
- (4) Changes the statistical test applied other than the Sign Test or Wilcoxon Rank Sum Test;
- (5) Results in significant environmental impacts not previously reviewed. Reclassification of survey areas, as described in MARSSIM, from a less to a more restrictive classification (e.g., from a Class 3 to a Class 2 area) may be done without prior NRC notification; however, reclassification to a less restrictive classification (Class 1 to Class 2 area) will require NRC notification at least 14 days prior to implementation.

Background

On November 13, 2016, FCS submitted the Certification of Permanent Removal of Fuel from the Reactor Vessel (Reference 6.7) to the NRC in accordance with 10 CFR 50.82(a)(1)(ii). On March 30, 2017, FCS submitted the Post-Shutdown Decommissioning Activities Report (PSDAR) (Reference 6.8) and on March 31, 2017, FCS submitted an updated Irradiated Fuel Management Plan (IFMP) (Reference 6.9).

On October 24, 2016, FCS performed the scheduled final plant shutdown.

On November 13, 2016, FCS submitted the certification of permanent removal of fuel from the reactor vessel. Since both the certification of permanent cessation of power operations and of permanent removal of fuel from the reactor vessel for FCS have been submitted in accordance with 10 CFR 50.82(a)(1)(i) and (ii), the 10 CFR 50 license no longer will authorize reactor operation or emplacement or retention of fuel in the reactor vessel in accordance with 10 CFR 50.82(a)(2).

As a result of the certifications submitted by OPPD in accordance with 10 CFR 50.82(a)(1), the consequent removal of authorization to operate the reactor or to emplace or retain fuel in the reactor vessel in accordance with 10 CFR 50.82(a)(2), and the complete removal of fuel from the SFP none of the accident or event scenarios postulated in the Defueled Safety Analysis Report (DSAR) are credible.

The 10 CFR 50 license for FCS no longer permits operation of the reactor or emplacement or retention of fuel in the reactor vessel in accordance with 10 CFR 50.82(a)(2).

Following the cessation of operation, OPPD began planning to decommission at Fort Calhoun Station. On March 30, 2017, OPPD submitted a Post-Shutdown Decommissioning Activities Report (PSDAR) for FCS, pursuant to 10 CFR 50.82(a)(4)(i). The PSDAR was updated on December 16, 2019 (Reference 6.10).

Pending Licensing Actions under NRC Review

There are no other pending license amendment requests associated with License Conditions or Technical Specifications (TS) currently docketed for FCS. Therefore, no disposition of other changes, as they relate to this license amendment request, is needed.

License Condition Changes:

The proposed changes to the Renewed Facility License are as follows:

Add License Condition 3.D related to control of the License Termination Plan (LTP).

3.0 TECHNICAL EVALUATION

The FCS LTP describes the process used to meet the requirements for release of the site for unrestricted use. The LTP has been prepared in accordance with the requirements in 10 CFR 50.82(a)(9) and is submitted as a supplement to the FCS DSAR. The LTP submittal is accompanied by a proposed license amendment that establishes the criteria for when changes to the LTP require prior NRC approval. The subsections below provide a brief summary of the eight chapters of the LTP.

The LTP includes a discussion on the following topics:

- Site Characterization to ensure that Final Status Surveys (FSS) cover all areas where contamination existed, remains, or has the potential to exist or remain,
- Identification of remaining dismantlement activities,
- Plans for site remediation,
- A description of the FSS plan to confirm that FCS will meet the release criteria in 10 CFR 20, Subpart E,
- Dose-modeling scenarios that ensure compliance with the radiological criteria for license termination,
- An estimate of the remaining site-specific decommissioning costs, and
- A supplement to the DSAR and the Final Generic Environmental Impact Statement describing any new information or significant environmental change associated with proposed license termination activities.

This proposal gives the NRC the opportunity to review the FCS LTP to ensure OPPD's planned activities and processes meet the criteria in 10 CFR 50.82(a)(9) and NUREG-1700, "Standard Review Plan for Evaluating Nuclear Power Reactor License Termination Plans" (Reference 6.2). Additionally, in accordance with NUREG-1700, Revision 1, Appendix 2, the license condition requires NRC approval for changes to the methodology that could result in increasing the amount of plant-related activity remaining at the time of license termination compared to the methodology the NRC reviewed in the proposed LTP.

Since the LTP is based on NRC guidance and establishes the methodology OPPD will use to meet license termination criteria, this proposed license amendment is appropriate to allow completion of the FCS decommissioning project and license termination.

LICENSE CONDITION CHANGE BASIS:

License Condition 3.D.; the proposed change adds the requirements to maintain the sites LTP program.

Pursuant to 10 CFR 50.82(a)(9), nuclear power reactor licensees are required to submit an LTP prior to, or along with, their application for termination of a license. This LTP will become a supplement to the FCS DSAR. The LTP is required to be submitted at least two years before termination of the license.

OPPD is submitting a proposed amendment to the FCS license to satisfy the requirements of 10 CFR 50.82(a)(10) for approval of the FCS LTP by license amendment. The change to the license will authorize the implementation of the LTP, allows the implementation of the method outlined in Chapter 5 of the LTP for site compliance with dose-based release criteria, and provides appropriate and necessary conditions for when changes can be made without prior NRC review and approval.

OPPD prepared the LTP using the guidance in:

- Regulatory Guide 1.179, "Standard Format and Contents for License Termination Plans for Nuclear Power Reactors," (Reference 6.3)
- NUREG-1575, "Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM),"
- NUREG-1700, "Standard Review Plan for Evaluating Nuclear Power Reactor License Termination Plans," and
- NUREG-1757, "Consolidated NMSS Decommissioning Guidance" (Reference 6.4)

4.0 REGULATORY EVALUATION

4.1 Applicable Regulatory Requirements/Criteria

4.1.1 10 CFR Part 50.82, Termination of License

10 CFR Part 50.82(a)(9) states "All power reactor licensees must submit an application for termination of license. The application for termination of license must be accompanied or preceded by a license termination plan to be submitted for NRC approval."

- (i) The license termination plan must be a supplement to the FSAR or equivalent and must be submitted at least 2 years before termination of the license date.
- (ii) The license termination plan must include—
 - (A) A site characterization;
 - (B) Identification of remaining dismantlement activities;
 - (C) Plans for site remediation;
 - (D) Detailed plans for the final radiation survey;
 - (E) A description of the end use of the site, if restricted;
 - (F) An updated site-specific estimate of remaining decommissioning costs;
 - (G) A supplement to the environmental report, pursuant to § 51.53, describing any new information or significant environmental change associated with the licensee's proposed termination activities; and
 - (H) Identification of parts, if any, of the facility or site that were released for use before approval of the license termination plan.

4.1.2 10 CFR Part 50.82, Termination of License

10 CFR Part 50.82(a)(10) states "If the license termination plan demonstrates that the remainder of decommissioning activities will be performed in accordance with the regulations in this chapter, will not be inimical to the common defense and security or to the health and safety of the public, and will not have a significant effect on the quality of the environment and after notice to interested persons, the Commission shall approve the plan, by license amendment, subject to such conditions and limitations as it deems appropriate and necessary and authorize implementation of the license termination plan."

4.1.3 10 CFR Part 50.51, Continuation of License

10 CFR Part 50.51(b) states "Each license for a facility that has permanently ceased operations, continues in effect beyond the expiration date to authorize ownership and possession of the production or utilization facility, until the Commission notifies the licensee in writing that the license is terminated. During such period of continued effectiveness the licensee shall:

- (1) Take actions necessary to decommission and decontaminate the facility and continue to maintain the facility, including, where applicable, the storage, control and maintenance of the spent fuel, in a safe condition, and

- (2) Conduct activities in accordance with all other restrictions applicable to the facility in accordance with the NRC regulations and the provisions of the specific 10 CFR Part 50 license for the facility."

4.2 Precedent

- 4.2.1 Several plants currently in the decommissioning process, including Humboldt Bay Power Plant (Reference 6.12) (ML13130A008), Zion Nuclear Power Station (Reference 6.13) (ML15005A330), have revised their License to include the LTP approval and License requirements for maintaining the plan.

4.3 No Significant Hazards Consideration

The Omaha Public Power District (OPPD) has evaluated whether or not a significant hazards consideration is involved with the proposed amendment(s) by focusing on the three standards set forth in 10 CFR Part 50.92, "Issuance of amendment," as discussed below:

1. Does the proposed amendment involve a significant increase in the probability or consequences of an accident previously evaluated?

Response: No.

The change allows for the approval of the LTP and provides the criteria for when changes to the LTP require prior NRC approval.

The definition of safety-related structures, systems, and components (SSCs) in 10 CFR 50.2 states that safety-related SSCs are those relied on to remain functional during and following design basis events to assure:

1. The integrity of the reactor coolant boundary;
2. The capability to shutdown the reactor and maintain it in a safe shutdown condition; or
3. The capability to prevent or mitigate the consequences of accidents which could result in potential offsite exposures comparable to the applicable guideline exposures set forth in 10 CFR 50.43(a)(1) or § 100.11.

The first two criteria (integrity of the reactor coolant pressure boundary and safe shutdown of the reactor) are not applicable to a plant in a permanently defueled condition. The third criterion is related to preventing or mitigating the consequences of accidents that could result in potential offsite exposures exceeding limits. However, after all nuclear spent fuel assemblies have been transferred to dry cask storage within an ISFSI, none of the SSCs at FCS are required to be relied on for accident mitigation. Therefore, none of the SSCs at FCS meet the definition of a safety-related SSC stated in 10 CFR 50.2. The proposed addition of requirements for the LTP does not affect systems credited in any accident analysis at FCS.

This change does not affect possible initiating events for the decommissioning accidents or events previously evaluated in the FCS DSAR, as updated, or alter the configuration or operation of the facility. Safety limits, limiting safety system settings, and limiting control systems are no longer applicable to FCS in the permanently defueled mode, and are therefore not relevant.

The proposed change does not affect the boundaries used to evaluate compliance with liquid or gaseous effluent limits, and has no impact on plant operations. Therefore, the proposed license amendment does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the proposed amendment create the possibility of a new or different kind of accident from any accident previously evaluated?

Response: No.

The safety analysis for the facility remains accurate as described in the FCS DSAR, as updated. There are sections of the LTP that refer to the decommissioning activities still remaining (e.g. removal of large components, decontamination, etc.). However, these activities are performed in accordance with approved FCS work packages/steps and undergo 10 CFR 50.59 screening prior to initiation, when required.

The proposed amendment makes mention of these processes and does not bring about physical changes to the facility. Therefore, the facility conditions for which the postulated accidents and events has been evaluated are still valid and no new accident scenarios, or failure mechanisms are introduced by this amendment. The system operating procedures are not affected. Therefore, the proposed changes will not create the possibility of a new or different kind of accident from any accident previously evaluated. The proposed changes do not introduce any new failure modes.

Therefore, the proposed amendment does not create the possibility of a new or different kind of accident from any previously evaluated.

3. Does the proposed amendment involve a significant reduction in a margin of safety?

Response: No.

There are no changes to the design or operation of the facility resulting from this amendment. The proposed change does not affect the boundaries used to evaluate compliance with liquid or gaseous effluent limits, and has no impact on plant shutdown operations. Accordingly, neither the postulated accident assumptions in the DSAR, as updated, nor the Technical Specifications are affected.

The LTP is a plan for demonstrating compliance with the radiological criteria for license termination as provided in 10 CFR 20.1402. The margin of safety defined in the statements of consideration for the final rule on the Radiological Criteria for License

Termination is described as the margin between the 100 mrem/yr public dose limit established in 10 CFR 20.1301 for licensed operation and the 25 mrem/yr dose limit to the average member of the critical group at a site considered acceptable for unrestricted use (one of the criteria of 10 CFR 20.1402). This margin of safety accounts for the potential effect of multiple sources of radiation exposure to the critical group. Since the License Termination Plan is designed to comply with the radiological criteria for license termination for unrestricted use, the LTP supports this margin of safety.

In addition, the LTP provides the methodologies and criteria that will be used to perform remediation activities of residual radioactivity to demonstrate compliance with the ALARA criterion of 10 CFR 20.1402.

Additionally, the LTP is designed with recognition that (a) the methods in MARSSIM and (b) the building surface contamination levels are not directly applicable to use with complex nonstructural components. Therefore, the LTP states that nonstructural components remaining in buildings (e.g., pumps, heat exchangers, etc.) will be evaluated against the acceptance criteria to determine if the components can be released for unrestricted use. The LTP also states that materials, surveyed and evaluated as a part of normal decommissioning activities and prior to implementation of the final radiation surveys, will be surveyed for release using current site procedures to demonstrate compliance with the "no detectable" criteria. Such materials that do not pass these criteria will be controlled as contaminated.

Also, as previously discussed, the bounding accident for decommissioning is the resin container accident. Since the bounding decommissioning accident results in more airborne radioactivity than can be released from other decommissioning events, the margin of safety associated with the consequences of decommissioning accidents is not reduced by this activity.

Therefore, the proposed change does not involve a significant reduction in a margin of safety.

4.4 Conclusion

Based on the above, OPPD concludes that the proposed amendment presents no significant hazards consideration under the standards set forth in 10 CFR 50.92(c), and, accordingly, a finding of "no significant hazards consideration" is justified.

5.0 ENVIRONMENTAL CONSIDERATION

This amendment request meets the eligibility criteria for categorical exclusion from environmental review set forth in 10 CFR Part 51.22(c)(9) as follows. The proposed amendment does not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluent that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure.

(i) The amendment involves no significant hazards consideration.

As discussed in the No Significant Hazards Consideration section above, the proposed license amendment does not involve a significant hazards consideration.

(ii) There is no significant change in the types or significant increase in the amounts of effluents that may be released offsite.

The proposed license amendment is consistent with the plant activities described in the DSAR. No changes in effluent system requirements or controls are proposed in this change. The environmental impacts associated with radiation dose to members of the public related to decommissioning activities and site release for unrestricted use were considered in NUREG-0586, "Final Generic Environmental Impact Statement on Decommissioning of Nuclear Facilities, Supplement 1" (Reference 6.5), and NUREG-1496, "Generic Environmental Impact Statement in Support of the Rulemaking on Radiological Criteria for License Termination" (Reference 6.6).

NUREG-0586 provides a generic environmental assessment of decommissioning a reference nuclear facility. Based on the findings in NUREG-0586, the NRC concluded a generic finding of "no significant (environmental) impact." The NRC further concluded that no additional Environmental Impact Statement would need to be prepared in connection with decommissioning a particular nuclear site unless the impacts of a particular plant have site-specific considerations significantly different from those studied generically. LTP Chapter 8 provides an updated assessment of the environmental effects of decommissioning FCS. The updated assessment also determined that the environmental effects from decommissioning FCS are minimal and there are no adverse effects outside the bounds of NUREG-0586, Supplement 1. Based on the above, there will not be a significant change in the types or increase in the amounts of effluents released offsite for the remaining decommissioning activities. The release of effluents from the facility will continue to be controlled by site procedures throughout the remaining decommissioning, and the activities at FCS will continue to be performed in accordance with the FCS Offsite Dose Calculation Manual, as applicable.

(iii) There is no significant increase in individual or cumulative occupational exposure.

The attributes identified in NUREG-0586, Supplement 1 were compared with the remaining activities for FCS and the following conclusions were made:

- OPPD will maintain annual occupational radiation exposure to individuals as low as reasonably achievable. These exposures will be at, or below, the estimated values in Table 4-1 of NUREG-0586, Supplement 1. LTP Section 3 provides a dose estimate for FCS decommissioning.
- OPPD will maintain exposure to onsite workers and the offsite public as a result of waste transportation well below the levels projected by NUREG-0586.

LTP Chapter 8 provides an updated assessment of the environmental effects of decommissioning FCS. The updated assessment also determined that the environmental effects from decommissioning FCS are minimal and there are no adverse effects outside the bounds of NUREG-0586, Supplement 1.

Based on the above, there is no significant increase in individual or cumulative occupational exposure due to decommissioning FCS.

Conclusion

Based on the evaluations above: (1) there is reasonable assurance that the health and safety of the public will not be endangered by the conduct of activities in the proposed manner, and (2) such activities will be conducted in compliance with the NRC's regulations, and the proposed amendment will not be inimical to the common defense and security or the health and safety of the public.

Accordingly, the proposed amendment meets the eligibility criterion for categorical exclusion set forth in 10 CFR Part 51.22 (c)(9).

6.0 REFERENCES

- 6.1. NUREG-1575, "Multi-Agency Radiation Survey and Site Investigation Manual"
- 6.2. NUREG-1700, "Standard Review Plan for Evaluating Nuclear Power Reactor License Termination Plans"
- 6.3. Regulatory Guide 1.179, "Standard Format and Contents for License Termination Plans for Nuclear Power Reactors"
- 6.4. NUREG-1757, "Consolidated NMSS Decommissioning Guidance"
- 6.5. NUREG-0586, "Final Generic Environmental Impact Statement on Decommissioning of Nuclear Facilities"
- 6.6. NUREG-1496, "Generic Environmental Impact Statement in Support of the Rulemaking on Radiological Criteria for License Termination"
- 6.7. Letter from OPPD (T. Burke) to USNRC (Document Control Desk), "Certification of Permanent Removal of Fuel from the Reactor", dated November 13, 2016 (LIC-16-0074) (ML16319A254)
- 6.8. Letter from OPPD (M. Fisher) to USNRC (Document Control Desk), "Fort Calhoun Station, Unit No. 1, Post-Shutdown Decommissioning Activities Report", dated March 30, 2017 (LIC-17-0033) (ML17089A759)
- 6.9. Letter from OPPD (M. Fisher) to USNRC (Document Control Desk), "Fort Calhoun Station Irradiated Fuel Management Plan", dated March 31, 2017 (LIC-17-0031) (ML17093A594)
- 6.10. Letter from OPPD (M. Fisher) to USNRC (Document Control Desk), "Fort Calhoun Station, Unit No. 1, Post-Shutdown Decommissioning Activities Report", dated March 30, 2017 (LIC-17-0033) (ML 17089A759)
- 6.11. Letter from OPPD (M. Fisher) to USNRC (Document Control Desk), "Fort Calhoun Station, Unit No. 1, Post-Shutdown Decommissioning Activities Report", dated December 16, 2019 (LIC-19-0007) (ML 19351E355)
- 6.12. Humboldt Bay Power Plant – "License Amendment Request 13-01 Addition of License Condition 2.C.5, "License Termination Plan", dated May 3, 2013 (ML13130A008)
- 6.13. Zion Nuclear Power Station, Units 1, and 2, "License Amendment Request for the License Termination Plan", dated December 19, 2014, (ML15005A330)

ATTACHMENT 1

**Fort Calhoun Station, Unit No. 1
Renewed Facility License No. DPR-40**

**Mark-up of
10 CFR Part 50 License Pages**

[Word-processor mark-ups using “redline/strikeout” feature for “new text/deleted text” respectively]

OMAHA PUBLIC POWER DISTRICT

DOCKET NO. 50-285

FORT CALHOUN STATION, UNIT 1

RENEWED FACILITY LICENSE NO. DPR-40

1. The U.S. Nuclear Regulatory Commission (the Commission) having previously made the findings set forth in License No. DPR-40 issued August 9, 1973, has now found that:
 - A. The application to renew License No. DPR-40 filed by Omaha Public Power District (the licensee) 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 1, and all required notifications to other agencies or bodies have been duly made;
 - B. DELETED
 - C. The facility will be maintained in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission;
 - D. There is reasonable assurance: (1) that the activities authorized by this renewed license can be conducted without endangering the health and safety of the public, and (2) that such activities will be conducted in compliance with the rules and regulations of the Commission;
 - E. Omaha Public Power District is technically qualified and financially qualified to engage in the activities authorized by this renewed license in accordance with the rules and regulations of the Commission;
 - F. Omaha Public Power District has satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements," of the Commission's regulations;
 - G. The issuance of this renewed license will not be inimical to the common defense and security or to the health and safety of the public;
 - H. After weighing the environmental, economic, technical, and other benefits of the facility against environmental costs and considering available alternatives, the Commission concludes that the issuance of Renewed License No. DPR-40 is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied; and
 - I. The receipt, possession, and use of source, byproduct, and special nuclear material as authorized by the renewed license will be in accordance with the Commission's regulations in 10 CFR Parts 30, 40, and 70, including but not necessarily limited to 10 CFR Sections 30.33, 40.32, 70.23 and 70.31.

2. On the basis of the forgoing findings regarding this facility, Renewed Facility License No. DPR-40, issued August 9, 1973, is superseded by Renewed Facility License No. DPR-40, which is hereby issued to the Omaha Public Power District, to read as follows:
 - A. This renewed license applies to the Fort Calhoun Station, Unit 1, a pressurized water nuclear reactor and associated equipment (the facility), which is owned by the Omaha Public Power District. The facility is located in Washington County, Nebraska, and is described in the Final Safety Analysis Report as supplemented, amended, and updated and the Environmental Report as supplemented and amended.
 - B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses Omaha Public Power District:
 - (1) Pursuant to Section 104b of the Act and 10 CFR Part 50, "Licensing of Production and Utilization Facilities," to possess and use the facility as required for fuel storage at the designated location in Washington County, Nebraska in accordance with the procedures and limitations set forth in this renewed license;
 - (2) Pursuant to the Act and 10 CFR Parts 40 and 70, to possess at any time special nuclear material that was used as reactor fuel, in accordance with the limitations for storage, as described in the Final Safety Analysis Report, as supplemented, amended, and updated;
 - (3) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use at any time any byproduct, source, or sealed sources for radiation monitoring equipment calibration; and to possess any byproduct, source and special nuclear material as sealed neutron sources previously used for reactor startup and reactor instrumentation; and fission detectors;
 - (4) Pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use in amounts as required any byproduct, source, or special nuclear material without restriction to chemical or physical form for sample analysis or instrument calibration or when associated with radioactive apparatus or components;
 - (5) Pursuant to the Act and 10 CFR Parts 30 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by operation of the facility.

3. This renewed license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations in 10 CFR Chapter 1: Part 20, Section 30.34 of Part 30, Section 40.41 of Part 40, Section 50.54 and 50.59 of Part 50, and Section 70.32 of Part 70; and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

A. DELETED

B. Technical Specifications

The Permanently Defueled Technical Specifications contained in Appendix A, as revised through Amendment No. 299, are hereby incorporated in the license. Omaha Public Power District shall maintain the facility in accordance with the Permanently Defueled Technical Specifications.

C. Security and Safeguards Contingency Plans

The Omaha Public Power District shall fully implement and maintain in effect all provisions of the Commission-approved physical security, training and qualification, and safeguards contingency plans including amendments made pursuant to 10 CFR 72.212(b)(9) and to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The plans, which contain Safeguards Information protected under 10 CFR 73.21, are entitled: "Fort Calhoun Station Security Plan, Training and Qualification Plan, Safeguards Contingency Plan," submitted by letter dated March 25, 2020.

D. License Termination Plan (LTP)

The License Termination Plan (LTP) NRC License Amendment No. ### approves the revised LTP. In addition to the criteria specified in 10 CFR 50.59 and 10 CFR 50.82(a)(6), a change to the LTP requires prior NRC approval if the change:

- (1) Increases the probability of making a Type 1 decision error, as that term is described in the NRC's NUREG-1575, Multi-Agency Radiation Survey and Site Investigation Manual, Revision 1 (August 2000) (MARSSIM), above the level stated in the LTP;
- (2) Increases the radionuclide-specific derived concentration guideline levels (DCGL), as that term is described in the MARSSIM, and related minimum detectable concentrations;
- (3) Increases the radioactivity level, relative to the applicable DCGL, at which investigation occurs;
- (4) Changes the statistical test applied other than the Sign Test or Wilcoxon Rank Sum Test;

3. D. (cont.)

(5) Results in significant environmental impacts not previously reviewed. Reclassification of survey areas, as described in MARSSIM, from a less to a more restrictive classification (e.g., from a Class 3 to a Class 2 area) may be done without prior NRC notification; however, reclassification to a less restrictive classification (Class 1 to Class 2 area) will require NRC notification at least 14 days prior to implementation.

4. This license is effective as of the date of issuance and authorizes ownership and possession of Fort Calhoun Station until the Commission notifies the licensee in writing that the license is terminated.

FOR THE NUCLEAR REGULATORY COMMISSION

Original Signed by:
J.E. Dyer

J. E. Dyer, Director
Office of Nuclear Reactor Regulation

Attachments: 1. Appendix A - Permanently Defueled Technical Specifications
2. Appendix B - Deleted

Date of Issuance: November 4, 2003

ATTACHMENT 2

**Fort Calhoun Station, Unit No. 1
Renewed Facility License No. DPR-40**

“Clean” 10 CFR Part 50 License Pages

OMAHA PUBLIC POWER DISTRICT

DOCKET NO. 50-285

FORT CALHOUN STATION, UNIT 1

RENEWED FACILITY LICENSE NO. DPR-40

2. The U.S. Nuclear Regulatory Commission (the Commission) having previously made the findings set forth in License No. DPR-40 issued August 9, 1973, has now found that:
 - A. The application to renew License No. DPR-40 filed by Omaha Public Power District (the licensee) 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 1, and all required notifications to other agencies or bodies have been duly made;
 - B DELETED
 - C. The facility will be maintained in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission;
 - D. There is reasonable assurance: (1) that the activities authorized by this renewed license can be conducted without endangering the health and safety of the public, and (2) that such activities will be conducted in compliance with the rules and regulations of the Commission;
 - E. Omaha Public Power District is technically qualified and financially qualified to engage in the activities authorized by this renewed license in accordance with the rules and regulations of the Commission;
 - F. Omaha Public Power District has satisfied the applicable provisions of 10 CFR Part 140, "Financial Protection Requirements and Indemnity Agreements," of the Commission's regulations;
 - G. The issuance of this renewed license will not be inimical to the common defense and security or to the health and safety of the public;
 - H. After weighing the environmental, economic, technical, and other benefits of the facility against environmental costs and considering available alternatives, the Commission concludes that the issuance of Renewed License No. DPR-40 is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied; and
 - I. The receipt, possession, and use of source, byproduct, and special nuclear material as authorized by the renewed license will be in accordance with the Commission's regulations in 10 CFR Parts 30, 40, and 70, including but not necessarily limited to 10 CFR Sections 30.33, 40.32, 70.23 and 70.31.

2. On the basis of the forgoing findings regarding this facility, Renewed Facility License No. DPR-40, issued August 9, 1973, is superseded by Renewed Facility License No. DPR-40, which is hereby issued to the Omaha Public Power District, to read as follows:
 - A. This renewed license applies to the Fort Calhoun Station, Unit 1, a pressurized water nuclear reactor and associated equipment (the facility), which is owned by the Omaha Public Power District. The facility is located in Washington County, Nebraska, and is described in the Final Safety Analysis Report as supplemented, amended, and updated and the Environmental Report as supplemented and amended.
 - B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses Omaha Public Power District:
 - (1) Pursuant to Section 104b of the Act and 10 CFR Part 50, "Licensing of Production and Utilization Facilities," to possess and use the facility as required for fuel storage at the designated location in Washington County, Nebraska in accordance with the procedures and limitations set forth in this renewed license;
 - (2) Pursuant to the Act and 10 CFR Parts 40 and 70, to possess at any time special nuclear material that was used as reactor fuel, in accordance with the limitations for storage, as described in the Final Safety Analysis Report, as supplemented, amended, and updated;
 - (3) Pursuant to the Act and 10 CFR Parts 30, 40, and 70, to receive, possess, and use at any time any byproduct, source, or sealed sources for radiation monitoring equipment calibration; and to possess any byproduct, source and special nuclear material as sealed neutron sources previously used for reactor startup and reactor instrumentation; and fission detectors;
 - (4) Pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use in amounts as required any byproduct, source, or special nuclear material without restriction to chemical or physical form for sample analysis or instrument calibration or when associated with radioactive apparatus or components;
 - (5) Pursuant to the Act and 10 CFR Parts 30 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by operation of the facility.

3. This renewed license shall be deemed to contain and is subject to the conditions specified in the following Commission regulations in 10 CFR Chapter 1: Part 20, Section 30.34 of Part 30, Section 40.41 of Part 40, Section 50.54 and 50.59 of Part 50, and Section 70.32 of Part 70; and is subject to all applicable provisions of the Act and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

A. DELETED

B. Technical Specifications

The Permanently Defueled Technical Specifications contained in Appendix A, as revised through Amendment No. 299, are hereby incorporated in the license. Omaha Public Power District shall maintain the facility in accordance with the Permanently Defueled Technical Specifications.

C. Security and Safeguards Contingency Plans

The Omaha Public Power District shall fully implement and maintain in effect all provisions of the Commission-approved physical security, training and qualification, and safeguards contingency plans including amendments made pursuant to 10 CFR 72.212(b)(9) and to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The plans, which contain Safeguards Information protected under 10 CFR 73.21, are entitled: "Fort Calhoun Station Security Plan, Training and Qualification Plan, Safeguards Contingency Plan," submitted by letter dated March 25, 2020.

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3. D. (cont.)

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FOR THE NUCLEAR REGULATORY COMMISSION

Original Signed by:
J.E. Dyer

J. E. Dyer, Director
Office of Nuclear Reactor Regulation

Attachments: 1. Appendix A - Permanently Defueled Technical Specifications
2. Appendix B - Deleted

Date of Issuance: November 4, 2003