



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

May 21, 2019

Mr. John Dent, Jr.  
Vice President-Nuclear and CNO  
Nebraska Public Power District  
72676 648A Avenue  
Brownville, NE 68321

SUBJECT: COOPER NUCLEAR STATION – CORRECTION TO AMENDMENT NO. 262  
RE: ADOPTION OF TECHNICAL SPECIFICATIONS TASK FORCE (TSTF)  
TRAVELER TSTF-501 REVISION 1, “RELOCATE STORED FUEL OIL AND  
LUBE OIL VOLUME VALUES TO LICENSEE CONTROL”  
(EPID L-2018-LLA-0177)

Dear Mr. Dent:

By letter dated February 21, 2019 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML18348B103), the U.S. Nuclear Regulatory Commission (NRC) issued Amendment No. 262 to Renewed Facility Operating License No. DPR-46 for the Cooper Nuclear Station (CNS). The amendment was issued in response to Nebraska Public Power District’s (NPPD’s or the licensee’s) application dated June 11, 2018.

The amendment revised Technical Specification (TS) TS 3.8.3, “Diesel Fuel Oil, Lube Oil, and Starting Air,” by relocating the current stored diesel fuel oil and lube oil numerical volume requirements from the TSs to the TS Bases and replacing them with durational requirements, consistent with NRC-approved Technical Specifications Task Force (TSTF) Improved Standard Technical Specifications Change Traveler TSTF-501, Revision 1, “Relocate Stored Fuel Oil and Lube Oil Volume Values to Licensee Control.” The amendment also revised a surveillance requirement associated with TS 3.8.1, “AC [Alternating Current] Sources – Operating,” by replacing the day tank numerical volume requirement with a durational requirement.

In Section 2.0, “Regulatory Evaluation,” of the safety evaluation issued with Amendment No. 262, the NRC staff described the storage requirements for the main fuel oil storage tanks and diesel generator (DG) lubrication system. Specifically, the main fuel oil storage tanks are capable of providing sufficient fuel for 7 days of operation of one DG unit and a DG unit has a lube oil inventory capable of supporting a minimum of 7 days of operation.

During the licensee’s review of the issued amendment, it identified three places in the NRC staff’s safety evaluation where the language could be mistakenly interpreted to suggest that the fuel oil storage requirement was 7 days for operation of two DGs, not one DG. Specifically:

- On the bottom of page 2 and continuing at the top of page 3, the safety evaluation reads:

Specifically, the TSs would be modified so that Condition A is entered when the stored diesel fuel oil is less than a 7-day supply, but greater than a 6-day supply **for one or more DG units**. [emphasis added]

- In subsection 2.2.2 on page 3, the safety evaluation reads, in part:

SRs [surveillance requirements] 3.8.3.1 and 3.8.3.2 would be revised to require the licensee to verify that the stored diesel fuel oil volume and lube oil inventory are greater than or equal to a 7-day supply **for each DG unit**. [emphasis added]
- In the second paragraph of subsection 3.2 on page 5, the safety evaluation reads, in part:

Specifically, SRs 3.8.3.1 and 3.8.3.2 would be revised to require availability of a 7-day supply of fuel oil and lube oil **for each DG**, rather than a specified numerical volume. [emphasis added]

The NRC staff agrees that the wording in these sentences could be misinterpreted, as written. The enclosure to this letter contains revised safety evaluation pages that clarify these statements. The proposed revisions do not change any of the conclusions in the safety evaluation associated with the amendment, and do not affect the associated notice to the public. Please replace pages 3 and 5 of the NRC staff's safety evaluation to Amendment No. 262 with the enclosed pages.

The NRC staff regrets any inconvenience this may have caused. If you have any questions, please contact me at 301-415-4037 or via e-mail at [Thomas.Wengert@nrc.gov](mailto:Thomas.Wengert@nrc.gov).

Sincerely,

*April L. Pugh for TJW*

Thomas J. Wengert, Senior Project Manager  
Plant Licensing Branch IV  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-298

Enclosure:  
Corrected Pages 3 and 5 of the Safety Evaluation  
to Amendment No. 262

cc: Listserv

**ENCLOSURE**

**CORRECTED PAGES 3 AND 5 OF THE SAFETY EVALUATION  
TO AMENDMENT NO. 262**

**NEBRASKA PUBLIC POWER DISTRICT**

**RENEWED FACILITY OPERATING LICENSE DPR-46**

**COOPER NUCLEAR STATION**

**DOCKET NO. 50-298**

supply, but greater than a 6-day supply for one DG unit. Condition B would be entered when the stored DG lube oil contains less than a 7-day supply, but greater than a 6-day lube oil supply for one or more DG units.

#### 2.2.2 Proposed Changes to SR 3.8.3.1, SR 3.8.3.2, and SR 3.8.1.4

Currently, SR 3.8.3.1 requires the licensee to verify that the fuel oil storage tanks contain a combined volume greater than or equal to 49,500 gallons of fuel, SR 3.8.3.2 requires the licensee to verify that the lube oil inventory volume is greater than or equal to 504 gallons, and SR 3.8.1.4 requires the licensee to verify that each DG day tank contains a volume greater than or equal to 1500 gallons of fuel oil. As described in the current TS Bases, the numerical requirements in SRs 3.8.3.1 and 3.8.3.2 are based on maintaining at least a 7-day supply, while the numerical requirement in SR 3.8.1.4 is based on a 3.9-hour supply at full load. The proposed amendment would remove the numerical volume requirements from these SRs. SRs 3.8.3.1 and 3.8.3.2 would be revised to require the licensee to verify that the stored diesel fuel oil volume and lube oil inventory are greater than or equal to a 7-day supply. SR 3.8.1.4 would be revised to require the licensee to maintain a minimum 3.9-hour supply of fuel oil.

#### 2.3 Licensee-Identified Differences with TSTF-501, Revision 1

In the LAR, the licensee proposed two variations from TSTF-501, Revision 1, as described below:

- Variation 1: CNS SR 3.8.1.4, concerning fuel oil day tank inventory, currently specifies verification of greater than or equal to a minimum volume of fuel oil. The licensee proposed a revision to SR 3.8.1.4 to remove the day tank volume requirement and replace it with a durational requirement.
- Variation 2: The CNS calculations that determine fuel oil volumes do not include the fuel oil volume required to support periodic testing. Instead, NPPD administratively controls fuel oil in support of periodic testing.

#### 2.4 Regulatory Requirements and Guidance Used in the Evaluation of the Changes

##### 2.4.1 Regulatory Requirements

The regulation in 10 CFR 50.36, "Technical specifications," provides the regulatory requirements for the content of the TSs and requires, in part, that a summary statement of the bases for such specifications shall be included by applicants for a license authorizing operation of a production or utilization facility. Specifically, 10 CFR 50.36(c) requires that TSs include items in five specific categories related to station operation. These categories are (1) safety limits, limiting safety system settings, and limiting control settings, (2) LCOs, (3) SRs, (4) design features, and (5) administrative controls.

The regulation in 10 CFR 50.36(c)(2), "Limiting conditions for operation," states, in part, that TSs will include LCOs, which are "the lowest functional capability or performance levels of equipment required for safe operation of the facility." Section 50.36(c)(2)(i) further states that "[w]hen a limiting condition for operation of a nuclear reactor is not met, the licensee shall shut down the reactor or follow any remedial action permitted by the technical specifications until the condition can be met."

diesel operating time to be modified under licensee control pursuant to 10 CFR 50.59. The NRC staff's evaluation of the proposed TS changes is provided in the following sections.

3.1 NRC Staff Evaluation of Proposed Changes to TS 3.8.3 ACTIONS Table Conditions A and B

Currently, Condition A of TS 3.8.3 is entered when the fuel oil volume requirement is not met and Condition B is entered when the lube oil inventory requirement is not met. The current TS Bases state that the numerical volume requirements in Conditions A and B are based on volumes less than a 7-day supply, but at least a 6-day supply. The proposed changes would remove the numerical volumetric requirements from the TSs and would modify Conditions A and B to replace them with duration-based diesel operating time requirements, such that Condition A is entered when the stored fuel oil inventory is less than a 7-day supply, but greater than a 6-day supply and Condition B is entered when the lube oil inventory is less than a 7-day supply, but greater than a 6-day supply for one or more DGs. No other parts of Condition A or B are proposed to be modified.

As described in Section 3.2 below, the licensee stated that the stored diesel fuel oil and lube oil numerical volumes sufficient to meet the duration-based operating time requirements will be calculated using Section 5.4 of ANSI N195-1976, "Fuel Oil Systems for Standby Diesel Generators," and the volumes are based on applying the conservative assumption that the DG is operated continuously for 7 days at its rated capacity. The use of this methodology will ensure that the supplies of stored diesel fuel oil and lube oil for each DG that dictate Condition entry will continue to be calculated in accordance with NRC-approved methods.

Based on the above evaluation, the NRC staff concludes that the changes to the TS 3.8.3 ACTIONS Table are acceptable.

3.2 NRC Staff Evaluation of Proposed Changes to SRs 3.8.3.1, 3.8.3.2, and 3.8.1.4

Currently, SR 3.8.3.1 and SR 3.8.3.2 require the licensee to verify that the stored diesel fuel oil and lube oil numerical volume requirements are met. SR 3.8.1.4 requires the licensee to verify that each day tank contains the required volume of diesel fuel oil.

The licensee proposes to revise SR 3.8.3.1 and SR 3.8.3.2 to reflect the change from numerical volume requirements to durational requirements made in TS 3.8.3 ACTIONS Table. Specifically, SRs 3.8.3.1 and 3.8.3.2 would be revised to require availability of a 7-day supply of fuel oil and lube oil, rather than a specified numerical volume. As a result, SR 3.8.3.1 and SR 3.8.3.2 would require the licensee to verify that the combined volume of the fuel oil storage tanks and the lube oil inventory are each greater than or equal to a 7-day supply for a DG.

The licensee also proposes to revise SR 3.8.1.4, which contains the DG day tank volumetric requirement. The proposed change to SR 3.8.1.4 is similar to the proposed change for SR 3.8.3.1 in that the numerical volume requirements would be replaced with durational requirements. The revised SR 3.8.1.4 would require the licensee to verify that the stored diesel fuel oil volume in each day tank is greater than or equal to a 3.9-hour supply of fuel oil. The licensee's proposed inclusion of changes to the day tank storage requirements in the LAR is identified as Variation 1 in Section 2.3 of this SE.

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