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December 16, 2024

AEP-NRC-2024-70
10 CFR 50.90

Docket Nos.: 50.315
50.316

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555-0001

Donald C. Cook Nuclear Plant, Unit 1 and Unit 2
Application to Revise Technical Specifications to Adopt Technical Specifications Task Force (TSTF) Traveler TSTF-501, Revision 1, "Relocate Stored Fuel Oil and Lube Oil Volume Values to Licensee Control"

In accordance with the provisions of Section 50.90 of Title 10 of the *Code of Federal Regulations* (10 CFR), Indiana Michigan Power Company (I&M), the licensee for Donald C. Cook Nuclear Plant (CNP), is submitting a request for an amendment to the Technical Specifications (TS) for Donald C. Cook Nuclear Plant (CNP) Unit 1 and Unit 2.

The proposed changes revise TS 3.8.3, "Diesel Fuel Oil," by removing the current stored diesel fuel oil numerical volume requirements from the TS and replacing them with diesel operating time requirements. The numerical values will be placed in the TS Bases so that they may be modified under licensee control. The TS is modified so that the stored diesel fuel oil inventory will require that a 7 day supply be available for a diesel generator. Condition A in the Action table is revised and Surveillance Requirement (SR) 3.8.3.1 is revised to reflect the above change. The diesel fuel oil numerical volumes equivalent to a 6 day supply, used in the Actions, are removed, and replaced with a statement that there is a 6 day supply. The diesel fuel oil numerical volumes equivalent to a 7 day and 6 day supply will be stated in the Bases and will be controlled under the Technical Specification Bases Control Program. The current licensing basis for CNP Unit 1 and Unit 2 requires that a 7 day supply of stored diesel fuel oil be available for a diesel generator.

The proposed changes also revise SR 3.8.1.4 to reflect the removal of the stored diesel fuel oil numerical volume requirement from the TS to the TS Bases. SR 3.8.1.4 is modified so that the stored diesel fuel oil inventory will require that a greater than or equal to 15 minute supply be available in each fuel oil day tank. The current diesel fuel oil numerical volume, used in the SR, is removed, and replaced with a statement that there is a greater than or equal to 15 minute supply. The diesel fuel oil numerical volume will be stated in the Bases and will be controlled under the Technical Specification Bases Control Program.

Regarding stored diesel fuel oil, no changes to the current plant configuration, current numerical volume requirements, or current time-based duration basis are proposed in this application; the proposal merely swaps the current numerical volume requirements from the TS to the TS Bases and swaps the associated current time-based duration basis from the TS Bases to the TS. In addition, no changes to any SR Frequency, Required Actions, or Completion Times are proposed in this application.

These proposed changes are consistent, with the exception of fuel oil day tank volume, with NRC approved Revision 1 to TSTF Improved Standard Technical Specifications (STS) Change Traveler TSTF-501 (Relocate Stored Fuel Oil and Lube Oil Volume Values to Licensee Control) Revision 1. The availability of this TS improvement was announced in the Federal Register on May 26, 2010, (FR Vol. 75 No. 101) as part of the consolidated line item improvement process (CLIIP). Although an exception to the TSTF, the proposed change to the day tank volume is consistent with the methodology of the TSTF.

Enclosure 1 to this letter provides an affirmation statement pertaining to the information contained herein. Enclosure 2 provides a description and assessment of the proposed changes. Enclosures 3 and 4 provide Unit 1 and Unit 2 TS pages, respectively, marked to show the proposed changes. New clean Unit 1 and Unit 2 TS pages with proposed changes incorporated will be provided to the Nuclear Regulatory Commission (NRC) Licensing Project Manager when requested.

Enclosures 5 and 6 to this letter provide existing Unit 1 and Unit 2 TS Bases pages, respectively, marked to reflect the proposed changes. TS Bases markups are included for information only. Changes to the existing TS Bases, consistent with the technical and regulatory analyses, will be implemented under TS 5.5.12, "Technical Specifications Bases Control Program."

Enclosure 7 provides a Regulatory Commitment that I&M will be making to support approval and implementation of the proposed amendment.

Approval of the proposed amendment is requested in accordance with the normal NRC review schedule for such changes. Once approved, the amendment shall be implemented within 60 days.

In accordance with 10 CFR 50.91, a copy of this application, with enclosures, is being provided to the designated Michigan state officials.

If you should have any questions regarding this submittal, please contact Mr. Michael K. Scarpello, Regulatory Affairs Director, at (269) 466-2649.

Sincerely,

Scott A. Dailey
Site Vice President
Indiana Michigan Power Company

JMT/sjh

Enclosures:

1. Affirmation
2. Description and Assessment of Technical Specification Changes
3. Donald C. Cook Nuclear Plant Unit 1 Technical Specification Pages Marked to Show Proposed Changes
4. Donald C. Cook Nuclear Plant Unit 2 Technical Specification Pages Marked to Show Proposed Changes
5. Donald C. Cook Nuclear Plant Unit 1 Technical Specification Bases Pages Marked to Show Proposed Changes (For Information Only)
6. Donald C. Cook Nuclear Plant Unit 2 Technical Specification Bases Pages Marked to Show Proposed Changes (For Information Only)
7. Regulatory Commitment to Support License Amendment Request to Adopt Technical Specifications Task Force (TSTF) Traveler TSTF-501, Revision 1

c: EGLE - RMD/RPS
J.B. Giessner- NRC Region III
NRC Resident Inspector
N. Quilico - MPSC
R. M. Sistevaris - AEP Ft. Wayne, w/o enclosures
S. P. Wall - NRC Washington, D.C.
A J. Williamson - AEP Ft. Wayne, w/o enclosures

Enclosure 1 to AEP-NRC-2024-70

AFFIRMATION

I, Scott A. Dailey, being duly sworn, state that I am the Site Vice President of Indiana Michigan Power Company (I&M), that I am authorized to sign and file this request with the U. S. Nuclear Regulatory Commission on behalf of I&M, and that the statements made and the matters set forth herein pertaining to I&M are true and correct to the best of my knowledge, information, and belief.

Indiana Michigan Power Company

Scott A. Dailey
Site Vice President

SWORN TO AND SUBSCRIBED BEFORE ME

THIS 12 DAY OF December, 2024

Notary Public

My Commission Expires 5/23/2030

Enclosure 2 to AEP-NRC-2024-70

Description and Assessment of Technical Specification Changes

1.0 Description

Indiana Michigan Power Company (I&M), the licensee for Donald C. Cook Nuclear Plant (CNP) Unit 1 and Unit 2, requests adoption of Technical Specifications Task Force (TSTF) Traveler TSTF-501, Revision 1, "Relocate Stored Fuel Oil and Lube Oil Volume Values to Licensee Control" (Reference 1), which is an approved change to the Standard Technical Specifications (STS) into the CNP Unit 1 and Unit 2 TS. The availability of this Technical Specification (TS) improvement was announced in the *Federal Register* on May 26, 2010 (FR Vol. 75 No. 101) (Reference 2), as part of the consolidated line item improvement process (CLIIP). The proposed amendment revises TS 3.8.3, "Diesel Fuel Oil", to replace the numerical volume requirements for stored diesel fuel oil with the requirement that a 7 day supply be available. The diesel fuel oil numerical volumes equivalent to a 6 day supply, used in the Actions, are replaced with a statement that there is a 6 day supply. The diesel fuel oil numerical volumes equivalent to a 7 day and 6 day supply will be stated in the Bases and will be controlled under the Technical Specification Bases Control Program. The diesel fuel oil numerical volumes in all cases include an unusable volume.

TSTF-501 Revision 1 also allows revising TS 3.8.3 to replace the numerical volume requirement for stored lube oil inventory with the requirement that a 7 day supply be available. This part of TSTF-501 is intentionally excluded from this submittal, as the current TS 3.8.3 for CNP Unit 1 and Unit 2 does not contain this requirement.

2.0 Proposed Changes

The proposed changes revise TS 3.8.3, "Diesel Fuel Oil", by removing the current stored diesel fuel numerical volume requirements from the TS and placing them in the TS Bases so that it may be modified under licensee control. The TS are modified so that the stored diesel fuel oil inventory will require that a 7-day supply be available for a diesel generator. As a result:

- TS 3.8.3, Condition A in the Action table is revised. Currently, Condition A is entered when the stored diesel fuel oil numerical volume requirements are not met. As discussed in the current TS Bases, the numerical volume requirements in Condition A are based on volumes less than a 7 day supply, but greater than a 6 day supply. Condition A states "one or more DGs with fuel volume < 46,000 gal and > 39,500 gal in storage tank." The 46,000 gal and 39,500 gal values are calculated to be the inventory equivalent to a 7 day and 6 day fuel oil supply, respectively. The proposed change revises Condition A to state, "One or more DGs with fuel volume less than a 7 day supply and greater than a 6 day supply in storage tank." The Bases of Required Action A.1 are revised to state "The fuel oil volume equivalent to a 6 day supply is 39,500 gallons."

- TS Surveillance Requirements (SR) 3.8.3.1 is revised. Currently, SR 3.8.3.1 verifies that the stored diesel fuel oil numerical volume requirements are met. As discussed in the current TS Bases, the numerical volume requirements in SR 3.8.3.1 are based on maintaining at least a 7 day supply. The revision removes the volumetric requirements from the TS and places them in the TS Bases. The TS are modified so that SR 3.8.3.1 verifies that the stored diesel fuel oil inventory is greater than or equal to a 7 day supply for a diesel generator. The current TS SR

3.8.3.1 states "Verify each fuel oil storage tank contains ≥ 46,000 gal of fuel." The 46,000 gallon value is calculated to be the inventory equivalent to a 7 day fuel oil supply. The proposed change revises TS SR 3.8.3.1 to state, "Verify each fuel oil storage tank contains ≥ a 7 day supply of fuel." The Bases of SR 3.8.3.1 are revised to state "The fuel oil volume equivalent to a 7 day supply is 46,000 gallons when calculated in accordance with References 2 and 3" and provide additional detail on the calculation of the required volume. References 2 and 3 are Regulatory Guide 1.137 and ANSI N195-1976, respectively. The Bases note that the calculation uses the most limiting energy content allowed for the stored fuel.

- The reference to Appendix B of ANSI N195-1976 in the TS Bases is deleted. As a result, the only reference will be to ANSI N195-1976.

Proposed revisions to the TS Bases are also included in this application. Adoption of the TS Bases associated with TSTF-501, Revision 1, is an integral part of implementing this TS amendment. The changes to the affected TS Bases pages will be incorporated in accordance with the TS Bases Control Program.

I&M is proposing the following variations from the TS changes described in TSTF-501, Revision 1, and the NRC staff's model Safety Evaluation (SE) referenced in the Notice of Availability published in the *Federal Register* on May 26, 2010 (FR Vol. 75 No. 101), as part of the CLIIP Notice of Availability.

- No changes associated with lube oil inventory are included, as the TS for CNP Unit 1 and Unit 2 do not include the requirements for lube oil inventory.

- The current TS 3.8.3, Condition A, uses the word "volume" instead of "the word "level" as detailed by NUREG-1431, "Standard Technical Specifications Westinghouse Plants." Volume and level are synonymous as applicable to this TS Condition. Therefore, the word volume was retained in TS 3.8.3 Condition A. The suggested Bases changes from TSTF-501 contain a variation in that they use the word volume instead of level in TS Bases for 3.8.3, Action A.1 and SR 3.8.3.1.

- A revision to TS 3.8.1 "AC Sources – Operating", following a similar approach to the TS 3.8.3 changes discussed above is proposed. Surveillance Requirement SR 3.8.1.4 states "Verify each day tank contains ≥ 101.4 gal of fuel oil." The 101.4 gallon value is calculated to be the inventory equivalent to a 15 minute fuel oil supply. The proposed change revises SR 3.8.1.4 to state, "Verify each day tank contains ≥ a 15 minute supply of fuel oil." This variation is similar to the variation described in the license amendment request for the Cooper Nuclear Station (Reference 7) and for Fermi 2 Nuclear Generating Station (Reference 5). The 15 minute duration is based on having sufficient time for the DG to start and load the transfer pumps and remain above the volume at which fuel oil is automatically added. The specific volume needed to support this requirement is added to the TS Bases. Similar to the technical justification provided in the Technical Analysis in Traveler TSTF-501, Revision 1 (Section 4.0) as part of the CLIIP, this proposed change is acceptable since it only replaces the numerical volume requirement currently in the TS with the equivalent 15 minute supply requirement.

- There will be no change to the Bases of SR 3.8.1.4, as the TS Bases already reflects the required numerical volume and time duration requirements, which states "This SR provides verification that the level of fuel oil in the day tank is above the level at which fuel oil is automatically added. The level is expressed as an equivalent volume in gallons, of which 31.4 gallons is unusable (due to tank geometry and vortexing considerations) and 70 gallons is

usable and is selected to ensure adequate fuel oil for greater than 15 minutes of DG operation at full load."

- Per Section 3.3. of the NRC Staff's model safety evaluation: "Both calculation methods shall include explicit allowance for fuel consumption required by periodic testing." The CNP calculation that determines the minimum required fuel oil volumes to support the operation of a DG for a 7 day TS requirement does not include an explicit allowance for fuel oil consumption due to periodic testing. Instead, the fuel level is administratively controlled in support of required periodic testing, such that the TS require volumes for the fuel oil storage tanks are maintained. This variation is similar to the variation described in the license amendment request for the Cooper Nuclear Station (Reference 7) and for Perry Nuclear Power Plant (Reference 6).

- NRC Letter to the TSTF, dated April 3, 2014 (Reference 4), provided resolution of issues regarding plant-specific adoption of TSTF-501, Revision 1. In this letter, the NRC staff determined that the licensee must identify the NRC-approved calculation methodology in the Final Safety Analysis Report. The CNP Updated Final Safety Analysis Report (UFSAR) currently does not contain the information requested. See Enclosure 7 for the Regulatory Commitment to revise the CNP UFSAR to include the NRC-approved calculation methodology.

3.0 Background

The background for this application is addressed by the model safety evaluation referenced in the NRC's Notice of Availability published on May 26, 2010 (FR Vol. 75 No. 101) and TSTF-501, Revision 1.

4.0 Technical Analysis

I&M has reviewed the model SE published in the Federal Register on May 26, 2010 (FR Vol. 75 No. 101) as part of the CLIIP Notice of Availability, as well as the identification and resolution of issues regarding plant-specific adoption of TSTF-501 in the April 3, 2014, letter from the NRC. I&M has concluded that the technical justifications presented in the SE prepared by the NRC staff are applicable to CNP Unit 1 and Unit 2 and therefore justify this amendment for the incorporation of the proposed changes to the CNP Unit 1 and Unit 2 TS.

4.1 Precedent

Waterford Steam Electric Station, Unit 3 - Issuance of Amendment 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," (CAC No. MF9537; EPID L-2017-LLA-0205), dated April 26, 2018 (ML18026B053).

Fermi 2 - Issuance of Amendment Re: TSTF-501, Revision 1, "Relocate Stored Fuel Oil and Lube Oil Volume Values to Licensee Control" (TAC No. ME6861)," dated February 24, 2012 (ML113500433).

Cooper Nuclear Station – Issuance of Amendment 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), dated February 21, 2019 (ML18348B103).

5.0 Regulatory Analysis

5.1 No Significant Hazards Consideration

Pursuant to 10 CFR 50.90, Indiana Michigan Power Company (I&M), the licensee for Donald C. Cook Nuclear Plant (CNP) Unit 1 and Unit 2, is requesting U.S. Nuclear Regulatory Commission (NRC) approval to amend the operating licenses of CNP Unit 1 and Unit 2. I&M has evaluated the proposed changes to the Technical Specifications (TS) using the criteria in 10 CFR 50.92 and has determined that the proposed changes do not involve a significant hazards consideration.

Description of Amendment Request: The proposed changes revise CNP Unit 1 and Unit 2 TS by removing the current stored diesel fuel oil numerical volume requirement from the TS and place it in the TS Bases so that it may be modified under licensee control. The current numerical volume requirements are based on a 7 day supply in the fuel oil storage tank and a 15 minute supply in the day tank. The TS are modified so that the stored diesel fuel oil inventory will require a 7 day fuel oil storage tank supply and a 15 minute day tank supply be available to operate the required number of diesel generators.

Basis for proposed no significant hazards determination: As required by 10 CFR 50.91(a), the I&M analysis of the issue of no significant hazards consideration is presented below:

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

   Response: No.

   The proposed change removes the volume of diesel fuel oil required to support 7 day operation of the onsite diesel generators, and the volume equivalent to a 6 day supply from the TS, and places it under licensee control. The specific volume of fuel oil equivalent to a 7 and 6 day supply is calculated using the NRC approved methodology described in Regulatory Guide 1.137, Revision 1, "Fuel Oil Systems for Standby Diesel Generators" and ANSI N195-1976, "Fuel Oil Systems for Standby Diesel Generators" based on the diesel generator manufacturer's consumption values including consideration of minimum required energy content. Because the requirement to maintain a 7 day supply of diesel fuel oil is not changed and is consistent with the assumptions in the accident analyses, and the actions taken when the volume of fuel oil are less than a 6 day supply have not changed, neither the probability nor the consequences of any accident previously evaluated will be affected.

   The proposed change also removes the volume of diesel fuel oil required to support 15 minutes of diesel generator operation at full load in the day tank. The specific volume and time are not changed and is consistent with the existing plant design basis to support the emergency diesel generator under accident loading conditions.

   Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

Response: No.

The change does not involve a physical alteration of the plant (i.e., no new or different type of equipment will be installed) or a change in the methods governing normal plant operation. The change does not alter assumptions made in the safety analysis but ensures that the diesel generator operates as assumed in the accident analysis. The proposed change is consistent with the safety analysis assumptions.

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

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

Response: No.

The proposed change removes the volume of diesel fuel oil required to support 7 day operation of the onsite diesel generators, and the volume equivalent to a 6 day supply from the TS, and places it under licensee control. As the bases for the existing limits on diesel fuel oil are not changed, no change is made to the accident analysis assumptions and no margin of safety is reduced as part of this change.

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

Based on the above analysis, I&M concludes that the requested change does not involve a significant hazards consideration as set forth in 10 CFR 50.92(c), "Issuance of Amendment".

5.2 Applicable Regulatory Requirements/Criteria

A description of the proposed TS change and its relationship to applicable regulatory requirements were published in the *Federal Register* Notice of Availability on May 26, 2010 (FR Vol. 75 No. 101). I&M has reviewed the NRC staff's model SE referenced in the CLIIP Notice of Availability and concluded that the regulatory evaluation section is applicable to CNP Unit 1 and Unit 2.

6.0 Environmental Considerations

The proposed change would change a requirement with respect to installation or use of a facility component located within the restricted area, as defined in 10 CFR 20, or would change an inspection or surveillance requirement. However, the proposed change does not involve (i) a significant hazards consideration, (ii) a significant change in the types or significant increase in the amounts of any effluents that may be released offsite, or (iii) a significant increase in individual or cumulative occupational radiation exposure. Accordingly, the proposed change meets the eligibility criterion for categorical exclusion set forth in 10 CFR 51.22(c)(9). Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the proposed change.

7.0 References

1. TSTF-501, Revision 1, "Relocate Stored Fuel Oil and Lube Oil Volume Values to Licensee Control", dated May 28, 2010 (ML090510686).

2. Federal Register, "Notice of Availability of the Models for Plant-Specific Adoption of Technical Specifications Task Force Traveler TSTF-501, Revision 1, 'Relocate Stored Fuel Oil and Lube Oil Volume Values to Licensee Control,'" published on May 26, 2010, FR Vol. 75 No. 101 29588.

3. ANSI N195-1976, "Fuel Oil Systems for Standby Diesel-Generators," dated April 12, 1976.

4. Letter from U.S. Nuclear Regulatory Commission to Technical Specifications Task Force members, dated April 3, 2014, "Identification and Resolution of Issues Regarding Plant-Specific Adoption of Traveler TSTF-501, Revision 1, 'Relocate Stored Fuel Oil and Lube Oil Volume Values to Licensee Control,'" (ML14084A512).

5. Letter from Joseph H. Plona, Detroit Edison, to the U.S. Nuclear Regulatory Commission, dated August 12, 2011, "License Amendment Request for Adoption of Technical Specifications Task Force (TSTF) Traveler TSTF-501, Revision 1, 'Relocate Stored Fuel Oil and Lube Oil Volume Values to Licensee Control'" (ML112270114).

6. Letter from David B. Hamilton, FirstEnergy Nuclear Operating Company, to the U.S. Nuclear Regulatory Commission, dated October 27, 2016, "License Amendment Request for Adoption of Technical Specifications Task Force (TSTF) Traveler TSTF-501, Revision 1, 'Relocate Stored Fuel Oil and Lube Oil Volume Values to Licensee Control'" (ML16302A055).

7. Letter from John Dent, Jr., Nebraska Public Power District, to the U.S. Nuclear Regulatory Commission, dated June 11, 2018, "License Amendment Request for Adoption of Technical Specifications Task Force (TSTF) Traveler TSTF-501, Revision 1, 'Relocate Stored Fuel Oil and Lube Oil Volume Values to Licensee Control'" (ML18169A147).

Enclosure 3 to AEP-NRC-2024-70
Donald C. Cook Nuclear Plant Unit 1 Technical Specification Pages Marked to Show Proposed Changes

SURVEILLANCE REQUIREMENTS (continued)

	SURVEILLANCE	FREQUENCY
SR 3.8.1.3	----------NOTES---------- 1. DG loadings may include gradual loading as recommended by the manufacturer. 2. Momentary transients outside the load range do not invalidate this test. 3. This Surveillance shall be conducted on only one DG at a time. 4. This SR shall be preceded by and immediately follow without shutdown a successful performance of SR 3.8.1.2 or SR 3.8.1.8. ---------- Verify each DG is synchronized and loaded and operates for ≥ 60 minutes at a load ≥ 3150 kW and ≤ 3500 kW.	In accordance with the Surveillance Frequency Control Program
SR 3.8.1.4	Verify each day tank contains ≥ ~~101.4 gal~~ a 15 minute supply of fuel oil.	In accordance with the Surveillance Frequency Control Program
SR 3.8.1.5	Check for and remove accumulated water from each day tank.	In accordance with the Surveillance Frequency Control Program
SR 3.8.1.6	Verify each required DG air start receiver pressure is ≥ 190 psig.	In accordance with the Surveillance Frequency Control Program
SR 3.8.1.7	Verify each fuel oil transfer system operates to automatically transfer fuel oil from the storage tank to the day tank.	In accordance with the Surveillance Frequency Control Program

3.8 ELECTRICAL POWER SYSTEMS

3.8.3 Diesel Fuel Oil

LCO 3.8.3 The stored diesel fuel oil subsystem shall be within limits for each required diesel generator (DG).

APPLICABILITY: When associated DG is required to be OPERABLE.

ACTIONS

----------NOTE----------
Separate Condition entry is allowed for each DG.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more DGs with fuel volume ~~< 46,000 gal and > 39,500 gal~~ in storage tank.	A.1 Restore fuel oil volume to within limits.	48 hours
B. One or more DGs with stored fuel oil total particulates not within limit.	B.1 Restore fuel oil total particulates to within limits.	7 days
C. One or more DGs with new fuel oil properties not within limits.	C.1 Restore stored fuel oil properties to within limits.	30 days
D. Required Action and associated Completion Time not met. <u>OR</u> One or more DGs with diesel fuel oil subsystem not within limits for reasons other than Condition A, B, or C.	D.1 Declare associated DG inoperable.	Immediately

less than a 7 day supply and greater than a 6 day supply

SURVEILLANCE REQUIREMENTS

	SURVEILLANCE	FREQUENCY
SR 3.8.3.1	Verify each fuel oil storage tank contains ≥ ~~46,000 gal~~ of fuel. a 7 day supply	In accordance with the Surveillance Frequency Control Program
SR 3.8.3.2	Verify fuel oil properties of new and stored fuel oil are tested in accordance with, and maintained within the limits of, the Diesel Fuel Oil Testing Program.	In accordance with the Diesel Fuel Oil Testing Program
SR 3.8.3.3	Check for and remove accumulated water from each fuel oil storage tank.	In accordance with the Surveillance Frequency Control Program

Enclosure 4 to AEP-NRC-2024-70
Donald C. Cook Nuclear Plant Unit 2 Technical Specification Pages Marked to Show Proposed Changes

SURVEILLANCE REQUIREMENTS (continued)

	SURVEILLANCE	FREQUENCY
SR 3.8.1.3	----------NOTES---------- 1. DG loadings may include gradual loading as recommended by the manufacturer. 2. Momentary transients outside the load range do not invalidate this test. 3. This Surveillance shall be conducted on only one DG at a time. 4. This SR shall be preceded by and immediately follow without shutdown a successful performance of SR 3.8.1.2 or SR 3.8.1.8. ---------- Verify each DG is synchronized and loaded and operates for ≥ 60 minutes at a load ≥ 3150 kW and ≤ 3500 kW.	In accordance with the Surveillance Frequency Control Program
SR 3.8.1.4	Verify each day tank contains ≥ ~~101.4 gal~~ a 15 minute supply of fuel oil.	In accordance with the Surveillance Frequency Control Program
SR 3.8.1.5	Check for and remove accumulated water from each day tank.	In accordance with the Surveillance Frequency Control Program
SR 3.8.1.6	Verify each required DG air start receiver pressure is ≥ 190 psig.	In accordance with the Surveillance Frequency Control Program
SR 3.8.1.7	Verify each fuel oil transfer system operates to automatically transfer fuel oil from the storage tank to the day tank.	In accordance with the Surveillance Frequency Control Program

3.8 ELECTRICAL POWER SYSTEMS

3.8.3 Diesel Fuel Oil

LCO 3.8.3 The stored diesel fuel oil subsystem shall be within limits for each required diesel generator (DG).

APPLICABILITY: When associated DG is required to be OPERABLE.

ACTIONS

----------NOTE----------
Separate Condition entry is allowed for each DG.

CONDITION	REQUIRED ACTION	COMPLETION TIME
A. One or more DGs with fuel volume ~~< 46,000 gal and > 39,500 gal~~ in storage tank.	A.1 Restore fuel oil volume to within limits.	48 hours
B. One or more DGs with stored fuel oil total particulates not within limit.	B.1 Restore fuel oil total particulates to within limits.	7 days
C. One or more DGs with new fuel oil properties not within limits.	C.1 Restore stored fuel oil properties to within limits.	30 days
D. Required Action and associated Completion Time not met. <u>OR</u> One or more DGs with diesel fuel oil subsystem not within limits for reasons other than Condition A, B, or C.	D.1 Declare associated DG inoperable.	Immediately

less than a 7 day supply and greater than a 6 day supply

SURVEILLANCE REQUIREMENTS

	SURVEILLANCE	FREQUENCY
SR 3.8.3.1	Verify each fuel oil storage tank contains ≥ ~~46,000 gal~~ a 7 day supply of fuel.	In accordance with the Surveillance Frequency Control Program
SR 3.8.3.2	Verify fuel oil properties of new and stored fuel oil are tested in accordance with, and maintained within the limits of, the Diesel Fuel Oil Testing Program.	In accordance with the Diesel Fuel Oil Testing Program
SR 3.8.3.3	Check for and remove accumulated water from each fuel oil storage tank.	In accordance with the Surveillance Frequency Control Program

Enclosure 5 to AEP-NRC-2024-70
Donald C. Cook Nuclear Plant Unit 1 Technical Specification Bases Pages Marked to Show Proposed Changes (For Information Only)

B 3.8 ELECTRICAL POWER SYSTEMS

B 3.8.3 Diesel Fuel Oil

and Regulatory Guide 1.137 (Ref. 2)

BASES

BACKGROUND

Each diesel generator (DG) is provided with access to a storage tank. There are two storage tanks for the site, shared between the two units. Each storage tank supplies two DGs, one DG in each unit, as shown in the UFSAR, Figure 8.4-1 (Ref. 1). Each storage tank has a fuel oil capacity sufficient to operate one DG for a period of 7 days while the DG is supplying maximum post loss of coolant accident load demand discussed in the UFSAR, Section 8.4 (Ref.1). The maximum load demand is calculated using the assumption that a minimum of one DG is available. This onsite fuel oil capacity is sufficient to operate the DG for longer than the time to replenish the onsite supply from outside sources.

Fuel oil is transferred from storage tank to day tank by either of two transfer pumps associated with each storage tank. Redundancy of pumps and piping precludes the failure of one pump, or the rupture of any pipe, valve or tank to result in the loss of more than one unit DG. All outside tanks and piping are located underground.

For proper operation of the standby DGs, it is necessary to ensure the proper quality of the fuel oil. Regulatory Guide 1.137 (Ref. 2) addresses the recommended fuel oil practices as supplemented by ANSI N195 (Ref. 3). The fuel oil properties governed by these SRs are the water and sediment content, the kinematic viscosity (or saybolt viscosity), specific gravity (or API gravity), and impurity level.

APPLICABLE SAFETY ANALYSES

The initial conditions of Design Basis Accident (DBA) and transient analyses in the UFSAR, Chapter 14 (Ref. 4), assume Engineered Safety Feature (ESF) systems are OPERABLE. The DGs are designed to provide sufficient capacity, capability, redundancy, and reliability to ensure the availability of necessary power to ESF systems so that fuel, Reactor Coolant System and containment design limits are not exceeded. These limits are discussed in more detail in the Bases for Section 3.2, Power Distribution Limits; Section 3.4, Reactor Coolant System (RCS); and Section 3.6, Containment Systems.

Since diesel fuel oil subsystem supports the operation of the standby AC power sources, they satisfy Criterion 3 of 10 CFR 50.36(c)(2)(ii).

BASES

LCO

Stored diesel fuel oil in each storage tank is required to have sufficient supply for 7 days of full load operation of one DG. It is also required to meet specific standards for quality. This requirement, in conjunction with an ability to obtain replacement supplies within 7 days, supports the availability of DGs required to shut down the reactor and to maintain it in a safe condition for an anticipated operational transient or a postulated DBA with loss of offsite power. DG day tank fuel requirements, as well as transfer capability from the storage tank to the day tank, are addressed in LCO 3.8.1, "AC Sources - Operating," and LCO 3.8.2, "AC Sources - Shutdown."

APPLICABILITY

The AC sources (LCO 3.8.1 and LCO 3.8.2) are required to ensure the availability of the required power to shut down the reactor and maintain it in a safe shutdown condition after an anticipated operational transient or a postulated DBA. Since stored diesel fuel oil supports LCO 3.8.1 and LCO 3.8.2, stored diesel fuel oil is required to be within limits when the associated DG is required to be OPERABLE.

ACTIONS

The ACTIONS Table is modified by a Note indicating that separate Condition entry is allowed for each DG. This is acceptable, since the Required Actions for each Condition provide appropriate compensatory actions for each inoperable DG subsystem. Complying with the Required Actions for one inoperable DG subsystem may allow for continued operation, and subsequent inoperable DG subsystem(s) are governed by separate Condition entry and application of associated Required Actions.

A.1

The fuel oil volume equivalent to a 6 day supply is 39,500 gallons.

In this condition, the 7 day fuel oil supply for a DG is not available. However, the Condition is restricted to fuel oil level reductions that maintain at least a 6 day supply. These circumstances may be caused by events, such as full load operation required after an inadvertent start while at minimum required level, or feed and bleed operations, which may be necessitated by increasing particulate levels or any number of other oil quality degradations. This restriction allows sufficient time for obtaining the requisite replacement volume and performing the analyses required prior to addition of fuel oil to the tank. A period of 48 hours is considered sufficient to complete restoration of the required level prior to declaring the DG inoperable. This period is acceptable based on the remaining capacity (> 6 days), the fact that procedures will be initiated to obtain replenishment, and the low probability of an event during this brief period.

The fuel oil volume equivalent to a 7 day supply is 46,000 gallons when calculated in accordance with References 2 and 3. The required fuel storage volume is determined using the most limiting energy content of the stored fuel. Using the known correlation of diesel fuel oil absolute specific gravity or API gravity to energy content, the required diesel generator output, and the corresponding fuel consumption rate, the onsite fuel storage required for 7 days of operation can be determined.

BASES

SURVEILLANCE REQUIREMENTS

SR 3.8.3.1

This SR provides verification that there is an adequate inventory of fuel oil in each storage tank to support one DG's operation for 7 days at full load. The 7 day period is sufficient time to place the unit in a safe shutdown condition and to bring in replenishment fuel from an offsite location.

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

SR 3.8.3.2

The tests listed below are a means of determining whether new fuel oil is of the appropriate grade and has not been contaminated with substances that would have an immediate, detrimental impact on diesel engine combustion. If results from these tests are within acceptable limits, the fuel oil may be added to the storage tanks without concern for contaminating the entire volume of fuel oil in the storage tanks. These tests are to be conducted prior to adding the new fuel to the storage tank(s). The tests, limits, and applicable ASTM Standards are as follows:

a. Sample the new fuel oil in accordance with ASTM D4057-81 (Ref. 5);

b. Verify that the sample has: (1) when tested in accordance with ASTM D1298-80 (Ref. 5) an absolute specific gravity at 60/60°F of ≥ 0.82 and ≤ 0.88, an API gravity at 60°F of ≥ 30° and ≤ 40°, an API gravity of within 0.3 degrees at 60°F when compared to the supplier's certificate, or a specific gravity of within 0.0016 at 60/60° when compared to the supplier's certificate; (2) a kinematic viscosity at 40°C of ≥ 1.9 centistokes and ≤ 4.1 centistokes or Saybolt viscosity at 100°F of ≥ 32.6 and ≤ 40.1, if gravity was not determined by comparison with supplier's certification, when tested in accordance with ASTM 975-81 (Ref. 5); and (3) a flash point of ≥ 125°F when tested in accordance with ASTM D975-81 (Ref. 5); and

c. Verify that the new fuel oil has a clear and bright appearance with proper color when tested in accordance with ASTM D4176-82 (Ref. 5).

Failure to meet any of the above limits is cause for rejecting the new fuel oil, but does not represent a failure to meet the LCO concern since the fuel oil is not added to the storage tanks.

Following the initial new fuel oil sample, the fuel oil is analyzed within 31 days following addition of the new fuel oil to the fuel oil storage tank(s) to establish that the other properties specified in Table 1 of

BASES

REFERENCES

1. UFSAR, Section 8.4.

2. Regulatory Guide 1.137, October 1979.

3. ANSI N195-1976~~, Appendix B~~.

4. UFSAR, Chapter 14.

5. ASTM Standards: D4057-81 (Standard Practice for Manual Sampling of Petroleum and Petroleum Products), D1298-80 (Standard Test Method for Density, Relative Density (Specific Gravity), or API Gravity of Crude Petroleum and Liquid Petroleum Products by Hydrometer Method), D975-81 (Standard Specification for Diesel Fuel Oils), D4176-82 (Standard Test Method for Free Water and Particulate Contamination in Distillate Fuels (Visual Inspection Procedures)), D2622-82 (Standard Test Method for Sulfur in Petroleum Products by Wavelength Dispersive X-ray Fluorescence Spectrometry), and D2276-83 (Standard Test Method for Particulate Contaminant in Aviation Fuel by Line Sampling), Method A.

6. ASTM Standards, D975-81 (Standard Specification for Diesel Fuel Oils), Table 1.

Enclosure 6 to AEP-NRC-2024-70
Donald C. Cook Nuclear Plant Unit 2 Technical Specification Bases Pages Marked to Show Proposed Changes (For Information Only)

B 3.8 ELECTRICAL POWER SYSTEMS

B 3.8.3 Diesel Fuel Oil

and Regulatory Guide 1.137 (Ref. 2)

BASES

BACKGROUND

Each diesel generator (DG) is provided with access to a storage tank. There are two storage tanks for the site, shared between the two units. Each storage tank supplies two DGs, one DG in each unit, as show in the UFSAR, Figure 8.4-1 (Ref. 1). Each storage tank has a fuel oil capacity sufficient to operate one DG for a period of 7 days while the DG is supplying maximum post loss of coolant accident load demand discussed in the UFSAR, Section 8.4 (Ref. 1). The maximum load demand is calculated using the assumption that a minimum of one DG is available. This onsite fuel oil capacity is sufficient to operate the DG for longer than the time to replenish the onsite supply from outside sources.

Fuel oil is transferred from storage tank to day tank by either of two transfer pumps associated with each storage tank. Redundancy of pumps and piping precludes the failure of one pump, or the rupture of any pipe, valve or tank to result in the loss of more than one unit DG. All outside tanks and piping are located underground.

For proper operation of the standby DGs, it is necessary to ensure the proper quality of the fuel oil. Regulatory Guide 1.137 (Ref. 2) addresses the recommended fuel oil practices as supplemented by ANSI N195 (Ref. 3). The fuel oil properties governed by these SRs are the water and sediment content, the kinematic viscosity (or saybolt viscosity), specific gravity (or API gravity), and impurity level.

APPLICABLE SAFETY ANALYSES

The initial conditions of Design Basis Accident (DBA) and transient analyses in the UFSAR, Chapter 14 (Ref. 4), assume Engineered Safety Feature (ESF) systems are OPERABLE. The DGs are designed to provide sufficient capacity, capability, redundancy, and reliability to ensure the availability of necessary power to ESF systems so that fuel, Reactor Coolant System and containment design limits are not exceeded. These limits are discussed in more detail in the Bases for Section 3.2, Power Distribution Limits; Section 3.4, Reactor Coolant System (RCS); and Section 3.6, Containment Systems.

Since diesel fuel oil subsystem supports the operation of the standby AC power sources, they satisfy Criterion 3 of 10 CFR 50.36(c)(2)(ii).

BASES

LCO

Stored diesel fuel oil in each storage tank is required to have sufficient supply for 7 days of full load operation of one DG. It is also required to meet specific standards for quality. This requirement, in conjunction with an ability to obtain replacement supplies within 7 days, supports the availability of DGs required to shut down the reactor and to maintain it in a safe condition for an anticipated operational transient or a postulated DBA with loss of offsite power. DG day tank fuel requirements, as well as transfer capability from the storage tank to the day tank, are addressed in LCO 3.8.1, "AC Sources - Operating," and LCO 3.8.2, "AC Sources - Shutdown."

APPLICABILITY

The AC sources (LCO 3.8.1 and LCO 3.8.2) are required to ensure the availability of the required power to shut down the reactor and maintain it in a safe shutdown condition after an anticipated operational transient or a postulated DBA. Since stored diesel fuel oil supports LCO 3.8.1 and LCO 3.8.2, stored diesel fuel oil is required to be within limits when the associated DG is required to be OPERABLE.

ACTIONS

The ACTIONS Table is modified by a Note indicating that separate Condition entry is allowed for each DG. This is acceptable, since the Required Actions for each Condition provide appropriate compensatory actions for each inoperable DG subsystem. Complying with the Required Actions for one inoperable DG subsystem may allow for continued operation, and subsequent inoperable DG subsystem(s) are governed by separate Condition entry and application of associated Required Actions.

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The fuel oil volume equivalent to a 7 day supply is 46,000 gallons when calculated in accordance with References 2 and 3. The required fuel storage volume is determined using the most limiting energy content of the stored fuel. Using the known correlation of diesel fuel oil absolute specific gravity or API gravity to energy content, the required diesel generator output, and the corresponding fuel consumption rate, the onsite fuel storage required for 7 days of operation can be determined.

BASES

SURVEILLANCE REQUIREMENTS

SR 3.8.3.1

This SR provides verification that there is an adequate inventory of fuel oil in each storage tank to support one DG's operation for 7 days at full load. The 7 day period is sufficient time to place the unit in a safe shutdown condition and to bring in replenishment fuel from an offsite location.

The Surveillance Frequency is controlled under the Surveillance Frequency Control Program.

SR 3.8.3.2

The tests listed below are a means of determining whether new fuel oil is of the appropriate grade and has not been contaminated with substances that would have an immediate, detrimental impact on diesel engine combustion. If results from these tests are within acceptable limits, the fuel oil may be added to the storage tanks without concern for contaminating the entire volume of fuel oil in the storage tanks. These tests are to be conducted prior to adding the new fuel to the storage tank(s). The tests, limits, and applicable ASTM Standards are as follows:

a. Sample the new fuel oil in accordance with ASTM D4057-81 (Ref. 5);

b. Verify that the sample has: (1) when tested in accordance with ASTM D1298-80 (Ref. 5) an absolute specific gravity at 60/60°F of ≥ 0.82 and ≤ 0.88, an API gravity at 60°F of ≥ 30° and ≤ 40°, an API gravity of within 0.3 degrees at 60°F when compared to the supplier's certificate, or a specific gravity of within 0.0016 at 60/60° when compared to the supplier's certificate; (2) a kinematic viscosity at 40°C of ≥ 1.9 centistokes and ≤ 4.1 centistokes or Saybolt viscosity at 100°F of ≥ 32.6 and ≤ 40.1, if gravity was not determined by comparison with supplier's certification, when tested in accordance with ASTM 975-81 (Ref. 5); and (3) a flash point of ≥ 125°F when tested in accordance with ASTM D975-81 (Ref. 5); and

c. Verify that the new fuel oil has a clear and bright appearance with proper color when tested in accordance with ASTM D4176-82 (Ref. 5).

Failure to meet any of the above limits is cause for rejecting the new fuel oil, but does not represent a failure to meet the LCO concern since the fuel oil is not added to the storage tanks.

Following the initial new fuel oil sample, the fuel oil is analyzed within 31 days following addition of the new fuel oil to the fuel oil storage tank(s) to establish that the other properties specified in Table 1 of

BASES

REFERENCES

1. UFSAR, Section 8.4.

2. Regulatory Guide 1.137, October 1979.

3. ANSI N195-1976~~, Appendix B~~.

4. UFSAR, Chapter 14.

5. ASTM Standards: D4057-81 (Standard Practice for Manual Sampling of Petroleum and Petroleum Products), D1298-80 (Standard Test Method for Density, Relative Density (Specific Gravity), or API Gravity of Crude Petroleum and Liquid Petroleum Products by Hydrometer Method), D975-81 (Standard Specification for Diesel Fuel Oils), D4176-82 (Standard Test Method for Free Water and Particulate Contamination in Distillate Fuels (Visual Inspection Procedures)), D2622-82 (Standard Test Method for Sulfur in Petroleum Products by Wavelength Dispersive X-ray Fluorescence Spectrometry), and D2276-83 (Standard Test Method for Particulate Contaminant in Aviation Fuel by Line Sampling), Method A.

6. ASTM Standards, D975-81 (Standard Specification for Diesel Fuel Oils), Table 1.

Enclosure 7 to AEP-NRC-2024-70
Regulatory Commitment to Support License Amendment Request to Adopt Technical Specifications Task Force (TSTF) Traveler TSTF-501, Revision 1

REGULATORY COMMITMENTS

The following table identifies actions committed to by Indiana Michigan Power Company (I&M) in this document. Any other actions discussed in this submittal represent intended or planned actions by I&M. They are described to the U.S. Nuclear Regulatory Commission (NRC) for the NRC's information and are not regulatory commitments. All commitments discussed in this table are one- time commitments.

Commitment	Scheduled Completion Date:
I&M is providing a regulatory commitment to verify the inclusion or to revise the CNP Updated Final Safety Analysis Report (UFSAR) with the following information and to submit the revised description with the next UFSAR update: The specific Emergency Diesel Generator (EDG) fuel oil volumes contained in the diesel fuel oil storage tank(s) necessary to ensure that EDG run-duration requirements are met are calculated using Section 5.4 of American National Standards Institute N195- 1976, 'Fuel Oil Systems for Standby Diesel-Generators,' and are based on applying the conservative assumption that the EDG is operated continuously at rated capacity. This fuel oil calculation methodology is one of the two approved methods specified in Regulatory Guide 1.137, Revision 1, 'Fuel Oil Systems for Standby Diesel Generators.' Regulatory Position C.1.c.	The CNP UFSAR will be updated, and the update submitted to the NRC, within six months of the end of the Unit 1 refueling outage following implementation of the proposed license amendment.