



Entergy Operations, Inc.

River Bend Station
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Jerry C. Roberts

Director, Nuclear Safety Assurance

November 15, 2007

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

SUBJECT: License Amendment Request
Adoption of TSTF-2, Relocate the 10 Year Sediment Cleaning of the Fuel
Oil Storage Tank to Licensee Control
River Bend Station, Unit 1
Docket No. 50-458
License No. NPF-47

RBF1-07-0048
RBG-46666

Dear Sir or Madam:

Pursuant to 10 CFR 50.90, Entergy Operations, Inc. (Entergy) hereby requests the following amendment for River Bend Station, Unit 1 (RBS). The proposed change relocates Surveillance Requirement (SR) 3.8.3.6 from the Technical Specifications (TS) to a licensee controlled document. SR 3.8.3.6 requires the Emergency Diesel Generator (EDG) Fuel Oil Storage Tanks (FOSTs) to be drained, sediment removed, and cleaned on a 10 year interval. The change is consistent with the Improved Standard Technical Specifications (ISTS), NUREGs-1430 through 1434. The SR was removed from the ISTS by Technical Specification Task Force Traveler No. 2 (TSTF-2).

The proposed changes have been evaluated in accordance with 10 CFR 50.91(a)(1) using criteria in 10 CFR 50.92(c) and it has been determined that this change involves no significant hazards consideration. The bases for these determinations are included in the attached submittal.

The proposed change does not include any new commitments.

Entergy requests approval of the proposed amendment by November 1, 2008. Once approved, the amendment shall be implemented within 60 days. Although this request is neither exigent nor emergency, your prompt review is requested.

A001
NRR

If you have any questions or require additional information, please contact Ron Byrd at 601-368-5792.

I declare under penalty of perjury that the foregoing is true and correct. Executed on November 15, 2007.

Sincerely,



Director, Nuclear Safety Assurance
River Bend Station - Unit 1

Attachments:

1. Analysis of Proposed Technical Specification Change
2. Proposed Technical Specification Changes (mark-up)
3. Changes to Technical Specification Bases Pages (for information only)

JCR/BMB

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Attachment 1

RBG-46666

Analysis of Proposed Technical Specification Change

1.0 DESCRIPTION

This letter is a request to amend Operating License NPF-47 for River Bend Station, Unit 1 (RBS).

The proposed change relocates Surveillance Requirement (SR) 3.8.3.6 from the Technical Specifications (TS) to a licensee controlled document. SR 3.8.3.6 requires the Emergency Diesel Generator (EDG) Fuel Oil Storage Tanks (FOSTs) to be drained, sediment removed, and cleaned on a 10 year interval.

Entergy requests approval of the proposed amendment by November 1, 2008.

2.0 PROPOSED CHANGE

Entergy proposes to relocate SR 3.8.3.6 from the TS to a licensee controlled document. The TS SR is based on Regulatory Guide (RG) 1.137 section C.2.f, which specifies that the fuel oil stored in the tanks should be removed, the accumulated sediment removed, and the tanks cleaned at 10-year intervals. Once the SR is removed from the TS, the FOST cleaning requirement will be governed by the current RBS commitment to RG 1.137 as described in Table 1.8-1 of the RBS Updated Safety Analysis Report (USAR).

The following SR is proposed to be deleted from the TS. A TS page mark-up showing the deletion is provided in Attachment 2.

SURVEILLANCE		FREQUENCY
SR 3.8.3.6	For each fuel oil storage tank: a. Drain the fuel oil; b. Remove the sediment; and c. Clean the tank.	10 years

TS Bases changes to be implemented in accordance with the TS Bases Change Control Program are provided in Attachment 3 for your information.

3.0 BACKGROUND

The RBS Class 1E Alternating Current (AC) distribution system supplies electrical power to three divisional load groups, with each division powered by an independent ESF bus. Each ESF bus has two separate and independent offsite sources of power as well as a dedicated onsite Emergency Diesel Generator (EDG).

Each EDG is provided with an underground storage tank having a fuel oil capacity sufficient to operate that EDG for a period of seven days while the EDG is supplying maximum post loss of coolant accident (LOCA) load demand. Fuel oil is transferred from each storage tank to its respective day tank by a transfer pump associated with each storage tank.

For proper operation of the EDGs, it is necessary to ensure the proper quality of the fuel oil. TS 5.5.9, "Diesel Fuel Oil Testing Program," requires testing of both new fuel oil and stored fuel oil. In addition, SR 3.8.3.6 requires the fuel oil stored in the FOSTs to be drained, accumulated sediment removed, and the tank cleaned at 10 year intervals.

4.0 TECHNICAL ANALYSIS

The Commission's regulatory requirements related to the content of the TS are set forth in 10 CFR 50.36. That regulation requires the TS to include items in five specific categories, including: (1) safety limits, limiting safety system settings, and limiting control settings; (2) limiting conditions for operation (LCO); (3) surveillance requirements; (4) design features; and (5) administrative controls. The regulation specifies criteria for certain requirements, but does not specify the particular requirements to be included in a plant's TS. As a result, existing TS requirements that fall within or satisfy any of the criteria in 10 CFR 50.36 must be retained in the TSs, while those TS requirements that do not fall within or satisfy these criteria may be relocated to other licensee controlled documents.

According to 10 CFR 50.36(c)(2)(ii), a limiting condition for operation must be included in TS for any item meeting one or more of the following four criteria:

- 1) Installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary.
- 2) A process variable, design feature, or operating restriction that is an initial condition of a design basis accident or transient analysis that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.
- 3) A structure, system, or component that is part of the primary success path and which functions or actuates to mitigate a design basis accident or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.
- 4) A structure, system, or component which operating experience or probabilistic risk assessment has shown to be significant to public health and safety.

In addition, 10 CFR 50.36(c)(3), states that SRs to be included in the TS are those relating to test, calibration, or inspection which assure that the necessary quality of systems and components is maintained, that facility operation will be within safety limits, and that the LCO will be met.

SR 3.8.3.6 is a maintenance activity and is not a necessary surveillance to demonstrate operability of the diesel generators, and thus does not meet the criteria in 10 CFR 50.36 for retention in the TS. Operability of the EDG and its associated fuel oil system are assured by other TS SRs which remain unchanged. Fuel oil will continue to be maintained within the acceptable quantity and quality limits with the relocation of SR 3.8.3.6. The performance of SR 3.8.3.3 (fuel oil testing) and the limits of the Diesel Fuel Oil Testing Program, TS 5.5.9, help ensure tank sediment is minimized. The performance of SR 3.8.3.1 (fuel oil volume

verification) once per 31 days ensures that any degradation of the tank wall surface that results in a fuel oil volume reduction is detected and corrected in a timely manner. On this basis, SR 3.8.3.6 was removed from the ISTS NUREGs by TSTF-2 as approved by Reference 1.

The current RBS TS Bases for SR 3.8.3.6 recognizes that the SR is for preventive maintenance and that sediment in the tank, or failure to perform this SR, does not necessarily result in an inoperable storage tank. The RBS TS Bases states:

Draining of the fuel oil stored in the supply tanks, removal of accumulated sediment, and tank cleaning are required at 10 year intervals by Regulatory Guide 1.137, paragraph 2.f. This SR is typically performed in conjunction with the ASME Boiler and Pressure Vessel Code, Section XI, examinations of the tanks. To preclude the introduction of surfactants in the fuel oil system, the cleaning should be accomplished using sodium hypochlorite solutions, or their equivalent, rather than soap or detergents. This SR is for preventive maintenance. The presence of sediment does not necessarily represent a failure of this SR provided that accumulated sediment is removed during performance of the Surveillance.

Therefore, it is appropriate to relocate SR 3.8.3.6 from the RBS TS to another licensee controlled document. Adequate controls currently exist in plant controlled documents to allow relocation of this requirement. The TS SR is based on Regulatory Guide (RG) 1.137 section C.2.f, which specifies that the fuel oil stored in the tanks should be removed, the accumulated sediment removed, and the tanks cleaned at 10-year intervals. In addition, the RG states that the cleaning should be accomplished using sodium hypochlorite solutions or their equivalent rather than soap or detergents to preclude the introduction of surfactants. Compliance with RG 1.137 is discussed in Table 1.8-1 of the RBS Updated Safety Analysis Report (USAR). Once the SR is removed from the TS, the FOST cleaning requirement will be governed by the current RBS commitment to RG 1.137 as described in Table 1.8-1. Any changes regarding compliance with the RG must be evaluated pursuant to 10 CFR 50.59.

5.0 REGULATORY ANALYSIS

5.1 Applicable Regulatory Requirements/Criteria

The proposed changes have been evaluated to determine whether applicable regulations and requirements continue to be met.

General Design Criteria (GDC) 17, *Electric Power Systems*, of Appendix A, *General Design Criteria for Nuclear Power Plants*, to 10 CFR 50, requires that an onsite electric power system and an offsite electric power system be provided to permit functioning of structures, systems, and components important to safety. The GDC 17 also includes requirements concerning system capacity, capability, independence, redundancy, availability, testability, and reliability. The proposed change to the RBS TS does not reduce RBS's conformance with GDC 17.

RBS USAR Table 1.8-1 discusses compliance with Regulatory Guide (RG) 1.137, "Fuel-Oil Systems for Standby Diesel Generators," and does not take any exceptions to paragraph C.2.f regarding the 10 year FOST cleaning tasks. Therefore, RBS is committed to the

regulatory guidance concerning cleaning of the FOSTs. Any changes to the RBS commitments to RG 1.137 must be evaluated pursuant to the requirements of 10 CFR 50.59.

Entergy has determined that the proposed changes do not require any exemptions or relief from regulatory requirements, other than the TS, and do not affect conformance with any GDC differently than described in the USAR.

5.2 No Significant Hazards Consideration

Entergy proposes to revise the River Bend Station (RBS) Technical Specifications to remove Surveillance Requirement (SR) 3.8.3.6, which requires the Emergency Diesel Generator (EDG) Fuel Oil Storage Tanks (FOSTs) to be cleaned on a 10 year frequency. The FOST cleaning requirement is a preventative maintenance task that will be governed by the current commitment to Regulatory Guide (RG) 1.137 as described in the RBS Updated Safety Analysis Report (USAR). RG 1.137 section C.2.f includes a provision to remove the fuel oil stored in the tanks, remove the accumulated sediment, and clean the tanks on a 10-year interval.

Entergy Operations, Inc. 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 50.92, "Issuance of amendment," as discussed below:

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

Response: No.

The FOSTs provide the storage for the EDG fuel oil, assuring an adequate volume is available for each EDG to operate for seven days in the event of a loss of offsite power concurrent with a loss of coolant accident. The relocation of the SR to drain and clean the FOSTs will not impact any of the previously analyzed accidents. Sediment in the tank, or failure to perform this SR, does not necessarily result in an inoperable storage tank. Fuel oil quantity and quality are assured by other TS SRs which remain unchanged. These SRs help ensure tank sediment is minimized and ensure that any degradation of the tank wall surface that results in a fuel oil volume reduction is detected and corrected in a timely manner. As a result, adequate controls exist to allow relocation of this preventative maintenance cleaning requirement to licensee controlled documents.

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 proposed TS changes do not involve the addition or modification of any plant equipment. Also, the proposed change will not alter the design configuration, or

method of operation of plant equipment beyond its normal functional capabilities. The proposed TS change does not create any new credible failure mechanisms, malfunctions or accident initiators.

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

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

Response: No.

The proposed change does not alter or exceed a design basis or safety limit. Diesel generator fuel oil quantity and quality will continue to be maintained within acceptable limits of the TS to assure the ability of the EDG to perform its intended function.

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

Based on the above, Entergy 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.

5.3 Environmental Considerations

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. Accordingly, the proposed amendment 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 amendment.

6.0 PRECEDENCE

The proposed change is consistent with the Improved Standard Technical Specifications (ISTS), NUREGs-1430 through 1434. The ISTS was revised to remove the FOST cleaning requirement by TSTF-2 as approved by the NRC in Reference 1. Other plants have adopted this change through ISTS conversion amendments. RBS did not adopt TSTF-2 in its ISTS conversion amendment in 1995 because TSTF-2 was not approved by the NRC until July 16, 1998. Entergy's Grand Gulf Nuclear Station adopted this change after its ISTS conversion by TS Amendment No. 142 (Reference 2). Duke Energy Corporation also adopted this change to the TS by amendments 200 and 206 for Catawba Units 1 and 2 (Reference 3)

7.0 REFERENCES

1. Letter from Mr. William D. Beckner, USNRC to Mr. James Davis, Nuclear Energy Institute (NEI), dated July 16, 1998.
2. Letter from Mr. S. Patrick Sekerak, USNRC to Mr. William A Eaton, Entergy, "Grand Gulf Nuclear Station, Unit 1 – Issuance of Amendment Re: Generic changes to Improved Standard Technical Specifications (TAC NO. MA6765)," dated June 30, 2000 (ADAMS Accession No. 003729556).
3. Letter from Mr. Robert E. Martin, USNRC, to Mr. G. R. Peterson, Duke Energy Corporation, "Catawba Nuclear Station, Units 1 and 2 Re: Issuance of Amendments (TAC NOS. MB6174 AND MB6175)," dated July 10, 2003 (ADAMS Accession No. ML031910598).

Attachment 2

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**Proposed Technical Specification and
Operating License Changes (mark-up)**

SURVEILLANCE REQUIREMENTS

SURVEILLANCE		FREQUENCY
SR 3.8.3.1	Verify each fuel oil storage tank contains $\geq 45,495$ gal of fuel.	31 days
SR 3.8.3.2	Verify lube oil inventory is: a. ≥ 367 gal for DGs 1A and 1B; and b. ≥ 295 gal for DG 1C.	31 days
SR 3.8.3.3	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 3.8.3.4	Verify each required DG air start receiver pressure is a. ≥ 160 psig for DGs 1A and 1B; and b. ≥ 200 psig for DG 1C.	31 days
SR 3.8.3.5	Check for and remove accumulated water from each fuel oil storage tank.	31 days
SR 3.8.3.6	For each fuel oil storage tank: a. Drain the fuel oil; b. Remove the sediment; and c. Clean the tank.	10 years

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- (3) EOI, pursuant to the Act and 10 CFR Part 70, to receive, possess and to use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report, as supplemented and amended;
- (4) EOI, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use at any time any byproduct, source and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;
- (5) EOI, 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 associated with radioactive apparatus or components; and
- (6) EOI, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.

C. This license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter 1 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:

(1) Maximum Power Level

EOI is authorized to operate the facility at reactor core power levels not in excess of 3091 megawatts thermal (100% rated power) in accordance with the conditions specified herein. The items identified in Attachment 1 to this license shall be completed as specified. Attachment 1 is hereby incorporated into this license.

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. ~~152~~ and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the license. EOI shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

Insert new amendment no.

Attachment 3

RBG-46666

**Changes to Technical Specification Bases Pages
For Information Only**

BASES

SURVEILLANCE
REQUIREMENTS

SR 3.8.3.5 (continued)

of the fuel oil by bacteria. Frequent checking for and removal of accumulated water minimizes fouling and provides data regarding the watertight integrity of the fuel oil system. The Surveillance Frequencies are established by Regulatory Guide 1.137 (Ref. 2). This SR is for preventive maintenance. The presence of water does not necessarily represent a failure of this SR provided that accumulated water is removed during performance of the Surveillance.

SR 3.8.3.6

Draining of the fuel oil stored in the supply tanks, removal of accumulated sediment, and tank cleaning are required at 10 year intervals by Regulatory Guide 1.137 (Ref. 2), paragraph 2.f. This SR is typically performed in conjunction with the ASME Boiler and Pressure Vessel Code, Section XI (Ref. 7), examinations of the tanks. To preclude the introduction of surfactants in the fuel oil system, the cleaning should be accomplished using sodium hypochlorite solutions, or their equivalent, rather than soap or detergents. This SR is for preventive maintenance. The presence of sediment does not necessarily represent a failure of this SR provided that accumulated sediment is removed during performance of the Surveillance.

REFERENCES

1. USAR, Section 9.5.4.
 2. Regulatory Guide 1.137.
 3. ANSI N195, Appendix B, 1976.
 4. USAR, Chapter 6.
 5. USAR, Chapter 15.
 6. ASTM Standards: D4057-81; D975-81; D4176-82; D1522-79; D2622-82; D2276-78.
 7. ASME, Boiler and Pressure Vessel Code, Section XI.
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