



Entergy Operations, Inc.
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William F. Maguire
Site Vice President
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RBG-47849

March 27, 2018

Attn: Document Control Desk
U.S. Nuclear Regulatory Commission
11555 Rockville Pike
Rockville, MD 20852-2738

SUBJECT: Response to License Renewal Application NRC Request for Additional Information
Set 4 Supplement
River Bend Station, Unit 1
Docket No. 50-458
License No. NPF-47

References: 1) Entergy Letter: License Renewal Application (RBG-47735 dated May 25, 2017)
2) NRC email: River Bend Station, Unit 1, Request for Additional Information, Set 4 – dated December 13, 2017 (ADAMS Accession No. ML17347B424)
3) Entergy Letter: Response to Request for Additional Information Set 4 – dated January 24, 2018 (ADAMS Accession No. ML18025B544)
4) Public Conference Call – Discuss RAI B.1.15-1, Fuel Oil Chemistry – dated March 8, 2018 (ADAMS Accession No ML18059A822)

Dear Sir or Madam:

In Reference 1, Entergy Operations, Inc (Entergy) submitted an application for renewal of the operating license for River Bend Station (RBS) for an additional 20 years beyond the current expiration date. In an email dated December 13, 2017, (Reference 2) the NRC staff issued set 4 Requests for Additional Information (RAI). On January 24, 2018, Entergy responded to the Set 4 RAIs (Reference 3). On February 27, 2018, (Reference 4) during a public conference call, the NRC staff requested additional information on the Entergy response to RAI B.1.15-1 that was provided in Reference 3. Enclosure 1 provides a revised response to this RAI that includes the additional information requested.

If you require additional information, please contact Mr. Tim Schenk at (225)-381-4177 or tschenk@entergy.com.

In accordance with 10 CFR 50.91(b)(1), Entergy is notifying the State of Louisiana and the State of Texas by transmitting a copy of this letter to the designated State Official.

I declare under penalty of perjury that the foregoing is true and correct. Executed on March 27, 2018.

Sincerely,



WFM/RMC/alc

Enclosure 1: Set 4 Supplemental RAI Response – River Bend Station

cc: (with Enclosure)
U. S. Nuclear Regulatory Commission
Attn: Emmanuel Sayoc
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cc: (w/o Enclosure)
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RB1-18-0054

RBG-47849

Enclosure 1

Response to Request for Additional Information

Set 4 Supplement

**REQUEST FOR ADDITIONAL INFORMATION
LICENSE RENEWAL APPLICATION
RIVER BEND STATION, UNIT 1 – SET 4 SUPPLEMENT
DOCKET NO.: 50-458
CAC NO.: MF9757
Office of Nuclear Reactor Regulation
Division of Materials and License Renewal**

Question

RAI B.1.15-1 (Fuel Oil Chemistry)

Background

SRP-LR Table 3.0-1, "FSAR Supplement for Aging Management of Applicable Systems," summary description provides an acceptable program description for the GALL Report AMP XI.M30, "Fuel Oil Chemistry," as per 10 CFR 54.21(d). The FSAR Supplement includes the specific ASTM Standards used for monitoring and control of fuel oil contamination to maintain fuel oil quality.

Issue

LRA Section A.1.15, "Diesel Fuel Monitoring," USAR supplement does not appear to include the specific industry standards used for the program. The current licensing basis will not be consistent with the staff-issued guidance document during the period of extended operation if the industry standards recommended by the GALL Report are not used.

Request

Justify the apparent absence of the above mentioned industry standards in the USAR supplement for the Diesel Fuel Monitoring program. Alternatively, state the changes to the USAR supplement necessary to include the GALL Report recommended industry standards that will be used for the program.

Response

Changes to the previous response are shown with additions underlined.

Changes are provided to the USAR supplement to identify ASTM standards used in the monitoring and control of diesel fuel, specifically, ASTM D4057, D1796, D2274 and D2276.

The use of ASTM standard D1796 in lieu of ASTM D2709 is appropriate for RBS. ASTM D2709-96 states that Test Method D1796, "Standard Test Method for Water and Sediment in Fuel Oils by the Centrifuge Method (Laboratory Procedure)," is intended for higher viscosity fuel oils. The use of ASTM D2709-96 is limited to fuel oils within a specific viscosity and density range. However, a review of ASTM D1796 -83 and -04 reveals no limitation on its use due to viscosity or other fuel oil parameters that would impact its use at RBS. In addition, Section B.3.8.3 of the RBS Technical Specifications Bases provides a discussion in Surveillance Requirement 3.8.3.3 on fuel oil testing that states "Following the initial new fuel oil sample, the fuel oil is analyzed to establish that the other properties specified in Table 1 of ASTM D975-81(Ref. 6) are met for new fuel oil when tested in accordance with ASTM D975-81 (Ref. 6)". ASTM D975-81 states in Section 4.1.3 that water and sediment are determined in accordance with method D1796. This test method has been used at RBS for many years

in accordance with Technical Specification requirements. The use of ASTM D2709 in lieu of ASTM D1796 at RBS is unnecessary.

The changes to LRA A.1.15 and B.1.15 follow with additions underlined and deletions lined through.

[The following revised LRA sections are unchanged from the previous RAI response submitted on January 24, 2018.]

A.1.15 Diesel Fuel Monitoring

The Diesel Fuel Monitoring Program manages loss of material in piping, tanks and other components in an environment of diesel fuel oil by verifying the quality of the fuel oil source. This is performed by receipt inspection, sampling, and limiting the quantities of contaminants before allowing it to enter the fuel oil storage tanks. Parameters monitored include water and sediment content, total particulates, and levels of microbiological organisms in the fuel oil. Monitoring and control are performed in accordance with ASTM standards D4057, D1796, D2274 and D2276. The program includes multi-level sampling of fuel oil storage tanks. Where multi-level sampling cannot be performed due to design, a representative sample is taken from the lowest part of the tank. A stabilizer/biocide is added to new fuel.

B.1.15 Diesel Fuel Monitoring

Program Description

The Diesel Fuel Monitoring Program manages loss of material in piping, tanks and other components in an environment of diesel fuel oil by verifying the quality of the fuel oil source. This is performed by receipt inspection, sampling, and limiting the quantities of contaminants before allowing it to enter the fuel oil storage tanks. Parameters monitored include water and sediment content, total particulates, and levels of microbiological organisms in the fuel oil. Monitoring and control are performed in accordance with ASTM standards D4057, D1796, D2274 and D2276. The program includes multi-level sampling of fuel oil storage tanks. Where multi-level sampling cannot be performed due to design, a representative sample is taken from the lowest part of the tank. A stabilizer/biocide is added to new fuel.