

July 30, 2008

Vice President, Operations
Entergy Operations, Inc.
Waterford Steam Electric Station, Unit 3
17265 River Road
Killona, LA 70057-3093

SUBJECT: WATERFORD STEAM ELECTRIC STATION, UNIT 3 - ISSUANCE OF
AMENDMENT RE: MODIFY DIESEL GENERATOR FUEL OIL TESTING
SURVEILLANCE REQUIREMENTS (TAC NO. MD5966)

Dear Mr. Walsh:

The Commission has issued the enclosed Amendment No.216 to Facility Operating License No. NPF-38 for the Waterford Steam Electric Station, Unit 3. This amendment consists of changes to the Technical Specifications (TSs) in response to your application dated July 3, 2007.

The amendment relocates the quality and quantity requirements associated with the emergency diesel generator fuel oil within the TS through the creation of a new TS Limiting Condition for Operation and the Diesel Fuel Oil Testing Program. In addition, two surveillance requirements associated with periodic draining, cleaning and visual inspection of the fuel oil storage tanks are deleted.

A copy of our related Safety Evaluation is also enclosed. The Notice of Issuance will be included in the Commission's next biweekly *Federal Register* notice.

Sincerely,

/RA/

N. Kalyanam, Senior Project Manager
Plant Licensing Branch IV
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-382

Enclosures: 1. Amendment No.216 to NPF-38
2. Safety Evaluation

cc w/encls: See next page

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 Entergy Operations, Inc.
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OFFICE	NRR/LPL4/PM	NRR/LPL4/LA	NRR/DIRS/ITSB*	OGC -NLO w/Comments	NRR/LPL4/BC (A)	NRR/LPL4/PM
NAME	NKalyanam	GLappert	RElliott	J. Biggins	MThadani	NKalyanam
DATE	7/22/08	7/22/08	06/09/08	7/27/08	7/30/08	7/30/08

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Waterford Steam Electric Station, Unit 3

(2/25/08)

cc:

Senior Vice President
Entergy Nuclear Operations
P.O. Box 31995
Jackson, MS 39286-1995

Vice President, Oversight
Entergy Nuclear Operations
P.O. Box 31995
Jackson, MS 39286-1995

Senior Manager, Nuclear Safety
& Licensing
Entergy Nuclear Operations
P.O. Box 31995
Jackson, MS 39286-1995

Senior Vice President
& Chief Operating Officer
Entergy Operations, Inc.
P.O. Box 31995
Jackson, MS 39286-1995

Associate General Counsel
Entergy Nuclear Operations
P.O. Box 31995
Jackson, MS 39286-1995

Manager, Licensing
Entergy Operations, Inc.
Waterford Steam Electric Station, Unit 3
17265 River Road
Killona, LA 70057-3093

Mr. Timothy Pflieger
Environmental Scientist - Supervisor
REP&R-CAP-SPOC
Louisiana Department of Environmental
Quality
P.O. Box 4312
Baton Rouge, LA 70821-4312

Parish President Council
St. Charles Parish
P.O. Box 302
Hahnville, LA 70057

Chairman
Louisiana Public Services Commission
P.O. Box 91154
Baton Rouge, LA 70825-1697

Mr. Richard Penrod, Senior Environmental
Scientist/State Liaison Officer
Office of Environmental Services
Northwestern State University
Russell Hall, Room 201
Natchitoches, LA 71497

Resident Inspector
Waterford NPS
P.O. Box 822
Killona, LA 70057-0751

Regional Administrator, Region IV
U.S. Nuclear Regulatory Commission
612 E. Lamar Blvd. Suite 400
Arlington, TX 76011-4125

ENTERGY OPERATIONS, INC.

DOCKET NO. 50-382

WATERFORD STEAM ELECTRIC STATION, UNIT 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 216
License No. NPF-38

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Entergy Operations, Inc. (EOI) dated July 3, 2007, 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 I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and Paragraph 2.C.2 of Facility Operating License No. NPF-38 is hereby amended to read as follows:

2. Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A, as revised through Amendment No. , 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.

3. This license amendment is effective as of its date of issuance and shall be implemented within 60 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Mohan C. Thadani, Acting Chief
Plant Licensing Branch IV
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment: Changes to the Facility Operating
License No. NPF-38 and
Technical Specifications

Date of Issuance: July 30, 2008

ATTACHMENT TO LICENSE AMENDMENT NO.216

TO FACILITY OPERATING LICENSE NO. NPF-38

DOCKET NO. 50-382

Replace the following pages of the Facility Operating License and Appendix A Technical Specifications with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Facility Operating License

REMOVE

INSERT

-4-

-4-

Technical Specifications

REMOVE

INSERT

3/4 8-1

3/4 8-1

3/4 8-3

3/4 8-3

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3/4 8-6a

3/4 8-6a

3/4 8-6b

3/4 8-6b

3/4 8-8

3/4 8-8

3/4 8-8a

3/4 8-8a

6-8

6-8

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO.216 TO
FACILITY OPERATING LICENSE NO. NPF-38
ENERGY OPERATIONS, INC.
WATERFORD STEAM ELECTRIC STATION, UNIT 3
DOCKET NO. 50-382

1.0 INTRODUCTION

By application dated July 3, 2007 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML071870125), Entergy Operations, Inc. (Entergy, the licensee), requested changes to the Technical Specifications (TSs) for Waterford Steam Electric Station, Unit 3 (Waterford 3).

The proposed TS changes requested that the quality and quantity of the fuel oil be redefined by creating a new TS Limiting Condition for Operation (LCO) and a new administrative control program for diesel fuel oil testing.

Specifically, proposed LCO 3.8.1.3, "Electrical Power Systems - Diesel Fuel Oil," will redefine the lowest functional capability or performance level for the diesel fuel oil system to ensure safe operation of the facility, and the proposed TS 6.5.13, "Diesel Fuel Oil Testing Program," will provide the programmatic requirements for fuel oil testing.

The proposed TS 6.5.13, "Diesel Fuel Oil Testing Program," is based on the improved standard technical specification, NUREG 1432, which incorporated Technical Specifications Task Force (TSTF) Traveler, TSTF-374-A, "Revision to TS 5.5.13 and Associated TS Bases for Diesel Fuel Oil." TSTF-374-A, Revision 0, was approved by the NRC on April 21, 2006 to allow licensees to relocate specific American Society for Testing and Materials (ASTM) Standard references from the TS to a licensee-controlled document.

The purpose of proposed, TS 6.5.13 is to ensure:

- Acceptability of new fuel oil for use prior to addition to storage tanks;
- Other properties of new fuel oil are within limits within 31 days following sampling and addition to storage tanks; and

- Total particulate concentration of the fuel oil is ≤ 10 mg/l when tested every 31 days.

Specifically, this safety evaluation addresses the following proposed changes to the current TSs:

1. The addition of a new LCO 3.8.1.3 and associated Surveillance Requirements (SRs) to address the volume and quality of the fuel oil in the EDG fuel oil storage tanks (FOSTs).
2. The deletion of the minimum volume requirements for the FOST from LCO 3.8.1.1 and 3.8.1.2 and relocate these requirements to proposed LCO 3.8.1.3.
3. The deletion of SR 4.8.1.1.2.a.2, which requires verification of the fuel oil level in the FOST, and relocate these requirements to proposed SR 4.8.1.3.1.
4. The deletion of SR 4.8.1.1.2.c, which establishes the criteria and testing requirements for the diesel fuel oil properties, and relocate these requirements to the Bases for proposed SR 4.8.1.3.2 and TS 6.5.13.
5. The deletion of SR 4.8.1.1.2.h which requires draining each EDG FOST, removing accumulated sediment, and cleaning the tank at least once per 10 years, and relocate these requirements to site procedures that are controlled in accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50.59.
6. The deletion of SR 4.8.1.1.2.i which requires a visual inspection of the interior of the EDG FOST each time the tank is drained and, if necessary, cleaning the tank, and relocate this requirement to site procedures that are controlled in accordance with 10 CFR 50.59.

2.0 REGULATORY EVALUATION

The following U.S. Nuclear Regulatory Commission (NRC) requirements and guidance documents are applicable to the NRC staff review of the licensee's amendment request:

10 CFR Part 50, Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants."

10 CFR Part 50, Appendix A, General Design Criteria for Nuclear Power Plants, Criterion 17, "Electric Power Systems," requires that an onsite electric power system and an offsite electric power system be provided to permit functioning of structures, systems, and components (SSC). General Design Criteria (GDC) 17 also includes requirements concerning system capacity, capability, independence, redundancy, availability, testability, and reliability.

10 CFR Part 50, Appendix A, General Design Criteria for Nuclear Power Plants, Criterion 5, "Sharing of Structures, Systems, and Components," requires that SSCs important to safety not be shared among nuclear power units unless it can be shown that such sharing will not significantly impair their ability to perform their safety functions, including, in the event of an accident in one unit, the orderly shutdown and cooldown of the remaining units.

NUREG-1432, Revision 3.1, "Standard Technical Specifications Combustion Engineering Plants," provides recommendations based on a comprehensive NRC staff examination of LCOs and SRs.

TSTF-374, Revision 3, Revision to TS 5.5.13 and Associated TS Bases for Diesel Fuel Oil which is associated with a Consolidated Line Item Improvement Process (CLIP) approved by the NRC on April 21, 2006.

Regulatory Guide (RG) 1.137, Fuel-Oil Systems for Standby Diesels addresses the recommended fuel oil practices as supplemented by American National Standards Institute, Inc. (ANSI) Standard N195-1976, Fuel Oil Systems for Standby Diesel-Generators.

NUREG-0800, Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants, addresses diesel fuel oil and other supporting systems in Section 9.5.4, "Emergency Diesel Engine Fuel Oil Storage and Transfer System."

3.0 TECHNICAL EVALUATION

The initial conditions of Design Basis Accident and transient analyses assume Engineered Safety Features (ESF) systems are operable. The Emergency Diesel Generators (EDGs) are designed to provide sufficient capacity, capability, redundancy, and reliability to ensure the availability of necessary power to ESF systems so that reactor fuel, reactor coolant system, and containment design limits are not exceeded. For proper operation of the EDGs, it is necessary to ensure the proper quality of the fuel oil. The EDG fuel oil properties governed by the TSs are the water and sediment content, the kinematics viscosity, specific gravity or American Petroleum Institute (API) gravity, and particulate level.

The Waterford 3 EDG fuel oil storage and transfer system have two redundant trains. The capacity of each FOST is sufficient for seven days of operation with one EDG loaded as specified in Table 8.3-1 of the Waterford 3 Updated Final Safety Analysis Report (UFSAR). Interconnecting piping with two normally closed series valves is provided between the two storage tanks to enable either EDG engine to be supplied from either of the FOSTs should one of the transfer pumps fail. Thus, a total diesel oil inventory of 14 days will be available onsite for single EDG operation with loading as specified in the Waterford 3 UFSAR Table 8.3-1. Fuel delivery to the plant is by truck. Adequate sources of diesel oil exist within a 30 mile radius.

The FOSTs are located in two separate rooms, designed to seismic Category I requirements. These tanks are filled through the fill lines located outside the rooms. The diesel oil transfer pumps, one located in each storage tank room, take suction from the tanks and discharge into the diesel oil feed (day) tanks. Strainers are installed in the suction lines to prevent particulate matter from entering the pumps. The exterior and interior surfaces of the tanks are blast cleaned, and then they are entirely coated to prevent corrosion. All piping are also cleaned and painted to protect against corrosion.

Oil levels for the FOSTs are indicated locally and in the main control room. High and low level alarms associated with the FOSTs are located in the main control room. A detailed description of the FOSTs is described in the Waterford 3 UFSAR, Section 9.5.4.

The following proposed changes were evaluated in accordance with the requirements listed in Section 2.0 of this Safety Evaluation.

3.1 Proposed Changes to LCO 3.8.1.1, AC Sources Operating, and 3.8.1.2, AC Sources Shutdown

The FOST volume requirements reflected in the current LCOs (3.8.1.1 and 3.8.1.2) will be relocated to proposed LCO 3.8.1.3. These changes will result in entry into a TS Action when the FOST level drops below 39,300 gallons. These changes are administrative in nature because it combines related requirements currently presented in two separate specifications of the Current Technical Specification (CTS) into a new single specification, i.e., LCO 3.8.1.3. The administrative changes are intended to incorporate human factors principles into the form and structure of the CTS so that plant operations personnel can use them more easily. The NRC staff finds that the proposed changes neither reduce nor increase the existing action requirements and, therefore, are acceptable.

3.2 Proposed Changes to SR 4.8.1.1.2.a.2

This SR requires verification of fuel oil level at least once per 31 days on a STAGGERED TEST BASIS. The proposed change deletes this SR and relocates the verification of fuel oil level to proposed SR 4.8.1.3.1. The NRC staff finds that the proposed change is administrative in nature because it neither reduces nor increases the existing action requirements and is, therefore, acceptable.

3.3 Proposed Changes to SR 4.8.1.1.2.c

SR 4.8.1.1.2.c specifies the testing and acceptance criteria for both new and stored fuel oil. This SR will be relocated to the new proposed SR 4.8.1.3.2. SR 4.8.1.3.2 requires fuel oil testing to be performed in accordance with the programmatic requirements specified in the new proposed TS 6.5.13, Diesel Fuel Oil Testing Program, which is consistent with TSTF-374-A, Revision 0.

SR 4.8.1.1.2.c, requires the following new fuel oil tests be performed prior to addition to the FOSTs:

- Water and sediment content (SR 4.8.1.1.2.c.1.a)
- Kinematic viscosity measurement (SR 4.8.1.1.2.c.1.b)
- Specific gravity verification (SR 4.8.1.1.2.c.1.c)
- Impurity levels within 7 days after obtaining the sample (SR 4.8.1.1.2.c.2)
- Other properties specified in Table 1 of ASTM D975-1977 within 14 days after obtaining the sample (SR 4.8.1.1.2.c.3).

All tests and surveillance requirements for new fuel oil required by SR 4.8.1.1.2.c will continue to be performed in accordance with proposed SR 4.8.1.3.2 except for the following changes noted below for SR 4.8.1.1.2.c.2 and SR 4.8.1.1.2.c.3.

1. SR 4.8.1.1.2.c.2 measures the new fuel oil impurities by artificially aging the fuel by passing air through the sample. This method of determining impurity levels will no longer be used. Instead, the new fuel oil and the monthly sampling of stored fuel oil will be tested based on a gravimetric determination of the total particulate in the fuel oil and is limited to ≤ 10 mg/l. The proposed test is more representative of the actual condition of the fuel oil than the results obtained from artificial aging. In addition, SR 4.8.1.1.2.c.2 requires that the surveillance frequency be once per 92 days.

The CTS for stored fuel oil testing requirements are the same as for new fuel oil with a surveillance frequency of 92 days. The proposed changes for stored fuel oil will change the surveillance frequency from 92 days to 31 days and eliminate all sampling requirements except the surveillance requirements for particulates. The periodic testing for particulates monitors a parameter that reflects degradation of fuel oil and can be trended to provide increased confidence that the stored fuel oil will support EDG operability. In addition, stored fuel oil properties (i.e., water and sediment content, kinematic viscosity, and specific gravity) are not expected to change significantly.

The NRC staff finds the proposed test for measuring particulate concentration in lieu of artificial aging with a surveillance frequency of 31 days consistent with TSTF-374-A, Revision 0, and, therefore, acceptable.

2. SR 4.8.1.1.2.C.3 require that the analysis completion time for verifying new fuel oil properties after the new fuel oil has been added to the storage tank be limited to 7 days. The analysis completion time specified in SR 4.8.1.1.2.c.3 will be changed from 14 days to 31 days consistent with TSTF-374-A, Revision 0. RG 1.37 states: "Analysis of the other properties of the fuel oil listed in the applicable specification should be completed within 2 weeks of the addition." However, Waterford 3 will take an exception to this guidance. When a small volume of new fuel oil is mixed with the total volume of stored fuel oil, the likelihood of contamination is minimal. In addition, even if the stored fuel oil properties were impacted, there is a high likelihood that the diesel generator would still be capable of performing its intended function, if required. The NRC staff finds the 31 day analysis completion time consistent with TSTF-374-A, Revision 0, and, therefore, acceptable.

It should be noted that TS 4.8.1.1.2.b will be retained for the feed tanks (day tanks). This surveillance verifies that the water content in the diesel oil day tanks will be checked and removed once per 31 days and after each operation of the diesel if the period of operation was greater than or equal to 1 hour. This surveillance is necessary because microbiological fouling is a major cause of fuel oil degradation. There are numerous bacteria that can grow in fuel oil and cause fouling, but all must have a water environment in order to survive. Removal of water from the fuel oil day tanks once every 31 days eliminates the necessary environment for bacterial survival. This is the most effective means of controlling microbiological fouling. In addition, it eliminates the potential for water entrainment in the fuel oil during DG operation. Water may come from any of several sources, including condensation, ground water, rain water, and contaminated fuel oil, and from breakdown 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.

In addition to the above, the following ASTM standards will be deleted from SR 4.8.1.1.2.c, replaced with more current ASTM standards, and relocated to the Bases for proposed SR 4.8.1.3.2 (see section 3.6).

- ASTM-D270-1975, Standard Method of Sampling Petroleum and Petroleum Products
- ASTM-D975-77, Standard Specification for Diesel Fuel Oils
- ASTM-D2274-70, Test Method for Oxidation Stability of Distillate Fuel Oil

The current standard for sampling, ASTM-D270-1975, was cancelled in 1984 and replaced with D4057. RG 1.137 includes guidance for periodic sampling and states that the sampling should be in accordance with ASTM D270-1975. Waterford 3 will take exception to this requirement in RG 1.137 and perform periodic testing in accordance with more current standards.

ASTM-D975-77 has been superseded by ASTM-D975-06. The more current standard covers five grades of diesel fuel oils while the earlier standards only included three grades of diesel fuel oil. Deletion of this standard from the TS will allow Waterford 3 to use a more current standard. For Grade No. 2-D fuel oil, the acceptance criteria for the fuel oil properties in the newer standard (ASTM-D975-06) remain unchanged when compared to the acceptance criteria of the currently used standard (ASTM-D975-77).

ASTM-D2274-70 provides a method of testing impurity levels by artificially aging the fuel by passing air through the sample. This test is no longer required in the proposed change. Because it is required in the CTS it has placed a burden on Waterford 3 to ensure the fuel oil vendor maintains the equipment needed to perform the test. The proposed particulate limit of ≤ 10 mg/l (proposed TS 6.5.13.c) is representative of the actual condition of fuel oil rather than the current 2 mg/l limit which is obtained by artificially aging the fuel oil.

The above ASTM Standards are out-dated and should be deleted and replaced with more current ASTM Standards that are consistent with Waterford 3 design bases. The more current ASTM Standards are specified in the Bases for proposed SR 4.8.1.3.2 which requires fuel oil testing to be performed in accordance with the programmatic requirements specified in TS 6.5.13, Diesel Fuel Oil Testing Program. The NRC staff finds these changes consistent with TSTF 374-A, Revision 0 and, therefore, acceptable.

3.4 Proposed Changes to SRs 4.8.1.1.2.h and 4.8.1.1.2.i

SR 4.8.1.1.2.h requires draining each EDG FOST, removing accumulated sediment, and cleaning the tank using a sodium hypochlorite or equivalent at least once per 10-years. SR 4.8.1.1.2.i requires a visual inspection of the interior of the EDG FOST each time the tank is drained, and if necessary, cleaning the tank.

SRs 4.8.1.1.2.h and 4.8.1.1.2.i will be deleted in the proposed changes. The deletion of these SRs is acceptable because they do not meet any of the criteria included in 10 CFR 50.36, "Technical Specifications," Subpart (d)(3).

RG 1.137, Section C.2.f includes a requirement to remove the fuel oil stored in the supply tanks, remove the accumulated sediment, and clean the tanks on a 10-year interval. This is a preventive maintenance cleaning activity and will continue to be performed in accordance with the RG requirements. The cleaning and inspection activities will be maintained in site procedures that are controlled in accordance with 10 CFR 50.59. The proposed change is consistent with NUREG-1432.

Therefore, The NRC staff finds the proposed changes to be acceptable.

3.5 Proposed New LCO 3.8.1.3, Electrical Power Systems, Diesel Fuel Oil (shown in italics)

The licensee proposed the following new LCO for the Diesel Fuel Oil System. LCO 3.8.1.3 verifies that the stored diesel fuel oil shall be within limits for each required diesel generator. The APPLICABILITY Statement specifies that the ACTION statements listed below are required whenever the associated DG is required to be OPERABLE.

ACTION: (Note: Separate ACTION entry is allowed for each DG.)

- a. With the fuel oil storage tank volume less than 39,300 gallons and greater than 37,000 gallons, restore fuel oil storage tank volume to greater than or equal to 39,300 gallons within 5 days (provided replacement fuel oil is onsite within the first 48 hours).*
- b. With one or more DGs with stored fuel oil total particulates not within limits, restore fuel oil total particulates to within limits within 7 days.*
- c. With one or more DGs with new fuel oil properties not within limits, restore stored fuel oil properties to within limits within 30 days.*
- d. If any of the above ACTIONS cannot be met, or if the diesel fuel oil is not within limits for reasons other than the above ACTIONS, immediately declare the associated DG(s) inoperable.*

ACTION a

This ACTION ensures that each diesel generator FOST contains fuel oil of a sufficient volume to operate each diesel generator for a period of 7 days. The ACTION limit of 39,300 gallons corresponds to a level of 96.41% in the FOST. This volume is sufficient to operate the diesel generator for 7 days based on the time-dependent loads of the diesel generator following a loss of offsite power and a design bases accident and includes the capacity to power the engineered safety features in conformance with Regulatory Guide 1.137. To account for instrument uncertainty, at least 97.86% indicated level is maintained in the FOST to assure that 39,300 usable gallons are available. The minimum onsite stored fuel oil is sufficient to operate the diesel generator for a period longer than the time to replenish the onsite supply from the outside sources discussed in FSAR 9.5.4.2.

An additional provision is included in the ACTION which allows the diesel generators to remain operable when their 7-day fuel oil supply is not available provided that at least a 6-day supply of fuel oil is available. This provision is acceptable on the basis that replacement fuel oil is onsite within the first 48 hours after falling below the 7-day supply. The ACTION limit of 37,000 gallons corresponds to a level of 90.76% in the FOST. This volume is sufficient to operate the diesel generator for 5 days based on the full continuous load (4400kW) of the diesel generator and is sufficient to operate the diesel generator for greater than 6 days based on the time dependent loads of the diesel generator following a loss of offsite power and a design basis accident. To account for instrument uncertainty, at least 92.21% indicated level is maintained in the FOST to assure that 37,000 usable gallons are available.

These changes are administrative in nature because they relocate LCO 3.8.1.1.b.2.a and b to the new proposed LCO 3.8.1.3. The administrative changes are intended to incorporate human factors principles into the form and structure of the CTS so that plant operations personnel can use them more easily. The NRC staff finds the proposed changes neither reduces nor increases the existing action requirements and, therefore, acceptable.

ACTION b

This Condition is entered as a result of a failure to meet the acceptance criterion of SR 4.8.1.3.2. Normally, trending of particulate levels allows sufficient time to correct high particulate levels prior to reaching the limit of acceptability. Poor sample procedures (bottom sampling), contaminated sampling equipment, and errors in laboratory analysis can produce failures that do not follow a trend. Since the presence of particulates does not mean failure of the fuel oil to burn properly in the diesel engine, and particulate concentration is unlikely to change significantly between surveillance frequency intervals, and proper engine performance has been recently demonstrated (within 31 days), it is prudent to allow a brief period prior to declaring the associated DG inoperable. The 7-day Completion Time allows for further evaluation, re-sampling, and re-analysis of the DG fuel oil. Based on these reasons, The NRC staff finds the proposed changes acceptable.

ACTION c

With the new fuel oil properties defined in the Bases for SR 4.8.1.3.2 not within the required limits, a period of 30 days is allowed for restoring the stored fuel oil properties. This period provides sufficient time to test the stored fuel oil to determine that the new fuel oil, when mixed with previously stored fuel oil, remains acceptable, or restore the stored fuel oil properties. This restoration may involve feed and bleed procedures, filtering, or combinations of these procedures. Even if a DG start and load was required during this time interval and the fuel oil properties were outside limits, there is a high likelihood that the DG would still be capable of performing its intended function. Based on these reasons, The NRC staff finds the proposed changes acceptable.

ACTION d

This ACTION requires that the associated EDG be declared inoperable immediately if any of the above Action Statements are not met. The NRC staff's finds the proposed ACTION acceptable

because failure to meet the above ACTION is an indication that the associated DG may be incapable of performing its intended function.

3.6 Proposed New SR 4.8.1.3.1 (shown in italics)

The licensee proposed adding the following new SR to LCO 3.8.1.3, Diesel Fuel Oil System.

At least once per 31 days on a STAGGERED TEST BASIS verify each fuel oil storage tank volume.

This change is administrative in nature because it relocates SR 4.8.1.1.2.a to the new proposed SR 4.8.1.3.1. The administrative change is intended to incorporate human factors principles into the form and structure of the CTS so that plant operations personnel can use them more easily. The NRC staff finds that the proposed changes neither reduces nor increases the existing action requirements and, therefore, is acceptable.

3.7 Proposed New SR 4.8.1.3.2 (shown in italics)

The licensee proposed the following new SR for LCO 3.8.1.3, Diesel Fuel Oil System

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.

SR 4.8.1.3.2 is used to enforce the administrative requirements specified in TS 6.5.13, Diesel Fuel Oil Testing Program. It provides the 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 the 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. The tests are to be conducted prior to adding the new fuel to the storage tanks, but in no case is the time between receipt of the new fuel and conducting the tests to exceed 31 days. The tests, limits, and applicable ASTM Standards are defined in the Bases (as shown in italics) for SR 4.8.1.3.2 as follows:

- a. *Sample the new fuel oil in accordance with ASTM D4057-06.*
- b. *Verify in accordance with the tests specified in ASTM D975-06 that the sample has an absolute specific gravity of 60/60°F of >0.85 and <0.885, or an API gravity at 60°F of ≤ 28.4 and ≤ 35, a kinematic viscosity at 40°C of ≥ 1.9 centistokes and ≤ 4.1 centistokes, and a flash point >125°F, and*
- c. *Verify that the new fuel oil has a clear and bright appearance with proper color when tested in accordance with ASTM D4176-04 or water and sediment content within limits when tested in accordance with ASTM D2709-96.*

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 since the fuel oil is not added to the storage tanks.

Within 31 days following the initial new fuel oil sample, the fuel oil is analyzed to establish that the other properties specified in Table 1 of ASTM D975-06 are met for Grade 2-D new fuel oil

when tested in accordance with ASTM D975-06. The 31-day period is acceptable because the fuel oil properties of interest, even if they were not within stated limits, would not have an immediate effect on diesel generator operation. This Surveillance ensures the availability of high quality fuel oil for the diesel generators.

Fuel oil degradation during long term storage shows up as an increase in particulate, due mostly to oxidation. The presence of particulate does not mean the fuel oil will not burn properly in a diesel engine. The particulate can cause fouling of filters and fuel oil injection equipment which can cause engine failure.

Particulate concentrations will be determined in accordance with ASTM D6217-98. This method involves a gravimetric determination of total particulate concentration in the fuel oil and has a limit of ≤ 10 mg/l (as specified in proposed TS 6.5.13.c.).

The frequency of this test (31 days) takes into consideration fuel oil degradation trends that indicate that particulate concentration is unlikely to change significantly between test intervals.

The applicable ASTM standards for fuel oil sampling and testing are defined in the Bases for SR 4.8.1.3.2. Details for performing TS surveillance are more appropriately specified in the plant procedures. Prescriptive procedural information in a TS requirement is unlikely to contain all procedural considerations necessary for plant operators to comply with the TS, and referral to plant procedures is therefore required in any event.

As such, references to specific ASTM Standards is not required in the TS to ensure adequate protection of the public health and safety. Relocation of the specific ASTM Standards to the Bases will provide the flexibility needed to maintain state-of-the-art technology in fuel oil sampling and analysis methodology. Changes to the Bases are performed in accordance with the provisions of 10 CFR 50.59 as described in TS 6.16, "Technical Specifications Bases Control Program." The NRC staff, therefore, finds the proposed changes acceptable.

3.8 Proposed New TS 6.5.13, Diesel Fuel Oil Testing Program (shown in italics)

The licensee proposed the following new administrative controls for the Diesel Fuel Oil Testing Program:

6.5.13 Diesel Fuel Oil Testing Program

A diesel fuel oil testing program to implement required testing of both new fuel oil and stored fuel oil shall be established. The program shall include sampling and testing requirements, and acceptance criteria, all in accordance with applicable ASTM Standards. The purpose of the program is to establish the following:

- a. *Acceptability of new fuel oil for use prior to addition to storage tanks by determining that the fuel oil has:*
 1. *An API gravity or an absolute specific gravity within limits,*
 2. *A flash point and kinematic viscosity within limits for ASTM 2D fuel oil, and*

3. *A clear and bright appearance with proper color or a water and sediment content within limits,*
 - b. *Within 31 days following addition of new fuel oil to storage tanks, verify that the properties of the new fuel oil, other than those addressed in a., above, are within limits for ASTM 2D fuel oil, and*
 - c. *Total particulate concentration of the fuel oil is ≤ 10 mg/l when tested every 31 days.*

The provisions of SR 4.0.2 and SR 4.0.3 are applicable to the Diesel Fuel Oil Testing Program surveillance frequencies.

The statement regarding the Applicability of SR 4.0.2 and SR 4.0.3 was added to clarify that the allowances provided by these SRs are applicable to the TS 6.5.13. This is an administrative change since the SR 4.0.2 and 4.0.3 are applicable to the current SR 4.8.1.1.2.c which is being relocated to the Diesel Fuel Oil Testing Program, TS 6.5.13.

Proposed TS 6.15.13 identifies the appropriate acceptance criteria for both new and stored fuel oil consistent with TSTF-374-A, Revision 0. The methodology for sampling and testing the fuel oil properties are contained in specific ASTM Standards relocated to the Bases for SR 4.8.1.3.2. This change will provide the flexibility to maintain the capability to implement the required testing of both new and stored fuel oil, including sampling and testing requirements, in accordance with applicable ASTM Standards whenever there are changes in Environmental Protection Agency regulations for fuel oil or newer editions of the ASTM Standards. Changes to the Bases are performed in accordance with the provisions of 10 CFR 50.59, "Changes, tests, and experiments," as described in TS 6.16, "Technical Specifications Bases Control Program." Thus, adequate control over changes to the Bases (i.e., in particular changes to the applicable ASTM Standards) exist to allow relocation of the specific ASTM Standard to the Bases.

The NRC staff finds the proposed changes acceptable because the remaining TSs, TS Bases Control Program, and other NRC regulations (e.g., Appendix B to 10 CFR Part 50) provide the necessary regulatory controls to ensure diesel fuel oil quality will be maintained.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Louisiana State official was notified of the proposed issuance of the amendment. The State official had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding

published in the *Federal Register* on July 31, 2007 (72 FR 41782). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

6.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: Gerald Waig

Date: July 30, 2008