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Kevin T. Walsh Vice President, Operations Waterford 3

W3F1-2007-0036

July 3, 2007

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

SUBJECT:

License Amendment Request NPF-38-270 To Modify Diesel Generator Fuel Oil Testing Surveillance Requirements Waterford Steam Electric Station, Unit 3 Docket No. 50-382 License No. NPF-38

Dear Sir or Madam:

In accordance with the provisions of 10 CFR 50.90, Entergy Operations, Inc. (Entergy) is submitting a request for an amendment to the Waterford Steam Electric Station, Unit 3 (Waterford 3) Technical Specifications (TS).

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

The proposed changes integrate NUREG-1432, Revision 3.1, *Standard Technical Specifications Combustion Engineering Plants,* into the currently approved licensing basis. The proposed change implements Technical Specification Task Force (TSTF) Improved Standard Technical Specifications Change Traveler, TSTF-374-A, *Revision to TS 5.5.13 and Associated TS Bases for Diesel Fuel Oil* which is associated with a Consolidated Line Item Improvement Process (CLIIP) approved by the NRC on April 21, 2006.

The proposed change has 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 Attachment 1.

The proposed change includes new commitments as summarized in Attachment 4. The NRC has approved a similar Technical Specification change for Arkansas Nuclear One, Unit 2.

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Entergy requests approval of the proposed amendment by July 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.

If you have any questions or require additional information, please contact Ron Williams at 504-739-6255.

I declare under penalty of perjury that the foregoing is true and correct. Executed on July 3, 2007.

Sincerely,

walthet for Kenni Walsh

KTW/DM/RLW

Attachments:

- 1. Analysis of Proposed Technical Specification Change
- 2. Proposed Technical Specification Changes (mark-up)
- 3. Proposed Technical Specification Changes (revised)
- 4. Changes to Technical Specification Bases Pages For Information Only
- 5. List of Regulatory Commitments

cc: Dr. Bruce S. Mallett U. S. Nuclear Regulatory Commission Region IV 611 Ryan Plaza Drive, Suite 400 Arlington, TX 76011

> NRC Senior Resident Inspector Waterford 3 P.O. Box 822 Killona, LA 70066-0751

U. S. Nuclear Regulatory Commission Attn: Mr. N. Kalyanam Mail Stop O-07D1 Washington, DC 20555-0001. Louisiana Department of Environmental Quality Office of Environmental Compliance Surveillance Division P. O. Box 4312 Baton Rouge, LA 70821-4312

American Nuclear Insurers Attn: Library 95 Glastonbury Blvd. Suite 300 Glastonbury, CT 06033-4443

Attachment 1

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Analysis of Proposed Technical Specification Change

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1.0 DESCRIPTION

This letter is a request to amend the Waterford Steam Electric Station, Unit 3 (Waterford 3) Operating License NPF-38.

The proposed changes will revise the Waterford 3 Technical Specification (TS) associated with the Emergency Diesel Generator (EDG) as follows:

- A new TS Limiting Condition for Operation (LCO), applicability and associated actions and surveillance requirements will be added to address the volume and quality of the fuel oil in the emergency diesel generator (EDG) fuel oil storage tanks (FOSTs) (proposed TS 3.8.1.3);
- The minimum volume requirements for the FOST will be deleted from TS 3.8.1.1 and TS 3.8.1.2 and relocated to proposed TS 3.8.1.3;
- Surveillance Requirement (SR) 4.8.1.1.2.a.2, which requires verification of the fuel level in the diesel generator FOST, will be deleted and the appropriate details relocated to proposed SR 4.8.1.3.1;
- SR 4.8.1.1.2.c, which establishes the testing requirements for the diesel fuel oil, will be deleted and the appropriate details relocated to proposed SR 4.8.1.3.2 and proposed TS 6.5.13, Diesel Fuel Oil Testing Program;
- SRs 4.8.1.1.2.h and 4.8.1.1.2.i, which are associated with periodic draining, cleaning and visual inspection of the FOSTs, will be deleted.

The proposed changes integrate NUREG-1432, Revision 3.1, *Standard Technical Specifications Combustion Engineering Plants,* (Reference 1) into the currently approved licensing bases. The proposed change implements Technical Specification Task Force (TSTF) Improved Standard Technical Specifications Change Traveler, TSTF-374-A, *Revision to TS 5.5.13 and Associated TS Bases for Diesel Fuel Oil,* which is associated with a Consolidated Line Item Improvement Process (CLIIP) approved by the NRC on April 21, 2006.

Entergy requests approval of the proposed amendment by May 15, 2008. Once approved, the amendment shall be implemented within 60 days. Although this request is neither exigent nor emergency, your prompt review is requested.

2.0 **PROPOSED CHANGE**

Technical Specification 3.8.1.3

The proposed change includes the creation of TS 3.8.1.3 to address the fuel oil volume and quality. The proposed TS is reflected below:

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

APPLICABILITY: When associated DG is required to be OPERABLE.

<u>ACTION:</u> (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.

SURVEILLANCE REQUIREMENTS

- 4.8.1.3.1 At least once per 31 days on a STAGGERED TEST BASIS verify each fuel oil storage tank volume.
- 4.8.1.3.2 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.

The following provides a brief overview of the new changes that are proposed with the adoption of TS 3.8.1.3:

- The proposed change includes a new note that allows separate ACTION entry for each EDG.
- Action "a" addresses fuel oil quantity and requires restoration consistent with the current LCO.
- Action "b" addresses the quality of the stored fuel oil and provides 7 days to restore the fuel oil total particulates to within limits.
- Action "c" addresses the quality of the new fuel oil and allows 30 days to restore the stored fuel oil properties if the new fuel oil that was added to the stored fuel oil has contaminated the properties of the stored fuel oil.
- Action "d" addresses the need to immediately declare the associated EDG(s) inoperable if other Actions are not met or the fuel oil is found to not be within limits for reasons other than those included in the Actions.
- Surveillance Requirement 4.8.1.3.1 requires a verification of the volume of fuel in each FOST on a staggered test basis at least once per 31 days. The proposed SR 4.8.1.3.1 will replace the existing SR 4.8.1.1.2.a.2, which will be deleted.
- The proposed SR 4.8.1.3.2 will require verification of the fuel oil properties of the new and stored fuel oil in accordance with the proposed Diesel Fuel Oil Testing Program (TS 6.5.13). The proposed SR will result in similar testing requirements as are currently required by SR 4.8.1.1.2.c. The details that are in the current SR 4.8.1.1.2.c will be deleted and as appropriate included in proposed TS 6.5.13 or in a licensee controlled program procedure that governs the Diesel Fuel Oil Testing Program. The

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current TS includes reference to several American Society for Testing and Materials (ASTM) Standards that will be deleted. This will provide 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 the Environmental Protection Agency (EPA) regulations for fuel oil or newer editions of the ASTM Standards without prior NRC approval.

Technical Specification 3.8.1.1

Existing details associated with the EDG FOST volume requirements located in TS LCO 3.8.1.1 will be deleted and relocated to proposed TS 3.8.1.3.

Technical Specification 3.8.1.2

Existing details associated with the EDG FOST volume requirements located in TS LCO 3.8.1.2 will be deleted and relocated to proposed TS 3.8.1.3.

Surveillance Requirement 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 verification and relocates the verification to proposed SR 4.8.1.3.1.

Surveillance Requirement 4.8.1.1.2.c Diesel Fuel Oil Sampling Requirements

This SR will be deleted. The requirement to perform fuel oil testing will be maintained by proposed SR 4.8.1.3.2. The specific details of the testing will be included in the Diesel Fuel Oil Testing Program (proposed TS 6.5.13) and licensee controlled documents.

Surveillance Requirement 4.8.1.1.2.h

The requirements of this SR include draining each EDG FOST, removing accumulated sediment, and cleaning the tanks using a sodium hypochlorite solution or equivalent at least once per 10 years. This SR will be deleted.

Surveillance Requirement 4.8.1.1.2.i

This SR requires a visual inspection of the interior of the EDG FOST each time the tank is drained and, if necessary, cleaning of the tank with a sodium hypochlorite solution or an equivalent solution. This SR will be deleted.

Proposed TS 6.5.13 - Diesel Fuel Oil Testing Program

A new program requirement will be added to address diesel fuel oil testing. The proposed change is consistent with NUREG-1432, Revision 3.1.

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The proposed change will allow the removal of references to ASTM standards, which are currently listed in TS SR 4.8.1.1.2.c. The deletion of these standards will allow Waterford 3 to use more current standards to perform the associated testing.

In addition, the proposed change includes the deletion of several limits that are currently included in TS SR 4.8.1.1.2.c. The limits will be included in the licensee controlled Diesel Fuel Oil Testing program procedures.

The proposed change does not include a test frequency similar to the current TS SR 4.8.1.1.2.c that requires samples to be taken at least once per 92 days and from new fuel oil prior to addition to the storage tank. The test frequency will be in accordance with the applicable ASTM standards and will be located in the licensee controlled Diesel Fuel Oil Testing program procedures.

The proposed change extends the current frequency from 14 days (SR 4.8.1.1.2.c.3) to 31 days (proposed TS 6.5.13.b) for completion of the analysis of the new fuel oil to ensure the properties, other than those included in the TS, are within limits. The properties and limits will be included in the licensee controlled Diesel Fuel Oil Testing program procedures and will be consistent with the ASTM requirements.

The current requirement (SR 4.8.1.1.2.c.2) to complete the analysis for impurity level within 7 days after obtaining the sample will be deleted and is not included in the proposed Diesel Fuel Oil Testing Program (TS 6.5.13). The proposed change includes a new requirement (TS 6.5.13.c) to test the particulate level of the fuel at least once per 31 days. The particulate level will replace the impurity measurement. This particulate limit is representative of the actual condition of the fuel oil rather than the current impurity limit that is based on an artificial aging of the fuel oil.

In summary, the proposed change will result in the creation of TS 3.8.1.3 that will address the EDG fuel oil quality and quantity requirements and TS 6.5.13, which will address the Diesel Fuel Oil Testing Program. The creation of these TSs will result in the deletion of a portion of the LCOs related to the fuel oil volume requirements of the EDG FOST that are included in TSs 3.8.1.1 and 3.8.1.2. The change also results in the deletion and relocation of the SR associated with monitoring the FOST volume. With the creation of TS 3.8.1.3 and TS 6.5.13, SR 4.8.1.1.2.c will be deleted and a new SR added to direct the performance of the Diesel Fuel Oil Testing Program. The proposed change also includes the deletion of SRs associated with the cleaning and inspection of the EDG FOSTs.

3.0 BACKGROUND

The EDG fuel oil storage and transfer system is designed to:

- provide oil storage capacity in each FOST for seven days of operation of each EDG in order to meet the engineered safety feature load requirements following a loss of offsite power and a design basis accident,
- maintain the fuel supply to at least one EDG assuming a single active or passive failure,
- withstand safe shutdown earthquake loads without loss of function, and

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withstand tornado wind loading and maximum flood levels without loss of function.

All safety related portions of the Waterford 3 EDG fuel oil storage and transfer system are seismic Category I, safety class 3, and designed to ANSI Standard N195-1976, "Fuel Oil Storage System for Standby Diesel Generator," with the following approved exceptions.

- The Waterford 3 EDG FOSTs contain a seven-day fuel oil supply using the time dependent method for calculating stored fuel oil. The Waterford 3 EDG FOSTs do not contain an explicit allowance for margin.
- The Waterford 3 EDG FOSTs do not contain an explicit allowance for fuel consumption required for periodic testing.
- The Waterford 3 EDG fuel oil feed tank suction is located on the bottom of the feed tank.
- The Waterford 3 EDG fuel oil feed tank overflow discharges to the sump pump system.
- The Waterford 3 EDG fuel oil transfer system does not have a pressure indicator located at the discharge of the fuel oil transfer pumps.

Two complete redundant trains are provided. The capacity of each EDG FOST is sufficient for seven days of operation of one EDG with loading 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. Under extremely unfavorable environmental conditions it is possible to deliver diesel oil by alternate means.

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 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 is 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.

The diesel FOSTs are described in the Waterford 3 UFSAR, Section 9.5.4.

Fuel Oil Sampling

Surveillance Requirement 4.8.1.1.2.c implements required testing for both new and stored fuel oil. Sampling and testing requirements and acceptance criteria are in accordance with applicable ASTM Standards. The current requirements for the fuel oil testing program are

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out-of-date. The proposed change will adopt the current industry practices, which are accepted by the NRC.

For proper operation of the standby EDGs, it is necessary to ensure the proper quality of the fuel oil. Regulatory Guide (RG) 1.137, *Fuel-Oil Systems for Standby Diesels* (Reference 2), addresses the recommended fuel oil practices as supplemented by American National Standards Institute, Inc. (ANSI) Standard ANSI N195-1976, *Fuel Oil Systems for Standby Diesel-Generators* (Reference 3). The fuel oil properties are the water and sediment content, the kinematic viscosity, specific gravity (or API gravity), and impurity level.

The diesel fuel oil sampling requirements provide 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 conducted prior to adding the new fuel to the storage tanks. Failure to meet any of the limits is cause for rejecting the new fuel oil, but does not represent a failure of the EDG since the fuel oil has not been added to the storage tanks.

After the new fuel oil has been added to the FOSTs, additional tests are performed on the new fuel oil. This testing is acceptable because the fuel oil properties of interest, even if they were not within stated limits, would not have an immediate effect on stored fuel oil or EDG operation. The availability of high quality fuel oil for the EDGs is assured by the performance of the proposed testing requirements.

The diesel fuel oil testing program is not described in the Waterford 3 UFSAR.

4.0 TECHNICAL ANALYSIS

Technical Specification 3.8.1.3

The proposed change relocates the FOST volume requirements that are currently included in TS 3.8.1.1 and TS 3.8.1.2. This change results in the creation of proposed Action "a" which will be entered when the FOST level drops below 39,300 gallons. This is a new action, however, does not pose an undue burden. Administrative actions are currently taken to track FOST level.

The proposed Action "b" requires restoration of the stored fuel oil total particulates to within limits within 7 days when samples indicate the particulate limit is greater than desired. Fuel oil degradation during long term storage shows up as an increase in particulate, due mostly to oxidation. The presence of particulates does not mean the fuel oil will not burn properly in a diesel engine. However, engine failure could occur as a result of fouling of filters if particulate levels are high. The proposed change does not pose an undue burden on Waterford 3 and provides a reasonable time to restore the quality of the fuel oil prior to declaring the associated EDG inoperable.

Action "c" requires restoration of stored fuel oil properties to within limits within 30 days when the sample results of the new fuel oil properties are not within limits. The current SR 4.8.1.1.2.c.3 includes a requirement to initiate actions to restore the fuel oil supply to

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within acceptable limits but does not specify that the limits shall be restored within a specific time period. The proposed period of 30 days for restoration 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 an EDG start and load was required during this time interval and the fuel oil properties were outside limits, there is a high likelihood that the EDG would still be capable of performing its intended function.

Action "d" requires that the associated EDG(s) be declared inoperable immediately if any of the other Actions cannot be met or if the fuel oil is not within limits other than those identified within the Actions.

A note will be added to the Actions that allows separate Action entry for each EDG subsystem. The note is acceptable because each Action provides appropriate compensatory measure for each inoperable DG subsystem. Complying with the Actions for one inoperable EDG subsystem may allow for continued operation. Subsequent inoperable EDG subsystem(s) are governed by separate entry and application of the associated Actions.

The proposed SR 4.8.1.3.1 is consistent with the current SR 4.8.1.1.2.a.2, which will be deleted.

Verification of fuel oil properties of new and stored fuel oil (proposed SR 4.8.1.3.2) in accordance with the Diesel Fuel Oil Testing Program is a new SR. This SR ensures the Diesel Fuel Oil Testing Program (TS 6.5.13) is implemented. The proposed change is administrative.

Technical Specification LCO 3.8.1.1 and 3.8.1.2

The FOST volume requirements reflected in the LCOs for these two TSs will be relocated to proposed TS 3.8.1.3. This change will result in entry into a TS Action when the FOST level drops below 39,300 gallons.

Surveillance Requirement 4.8.1.1.2.a.2

The proposed change relocates this SR to proposed SR 4.8.1.3.1. The change is administrative.

Surveillance Requirement 4.8.1.1.2.c - Diesel Fuel Oil Sampling Requirements and Proposed TS 6.5.13 – Diesel Fuel Oil Testing Program

This SR will be deleted with the proposal of the new Diesel Fuel Oil Testing Program and SR 4.8.1.3.2. The proposed change is consistent with TS 5.5.13 and SR 3.8.3.3 of NUREG-1432 (Reference 1).

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ASTM Standards

The current SR 4.8.1.1.2.c includes references to the following ASTM standards which will be deleted.

- 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

Waterford 3 does not use the most current standards to perform testing activities. The current standard for sampling, ASTM-D270-1975, was cancelled in 1984 and replaced with D4057. Regulatory Guide (RG) 1.137 includes guidance for periodic sampling and states that the sampling should be in accordance with ASTM D270-1975. The proposed change will allow Waterford 3 to use more current standards and therefore 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 standard 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-D275-77).

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 under the current TSs it has placed a burden on Waterford 3 to ensure the fuel oil vendor maintains the equipment needed to perform this 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 proposed change to delete references to particular standards and allow the use of more current standards does not reduce the current testing acceptance criteria nor introduce less accurate testing criteria.

Acceptance Criteria for Quality

In addition and consistent with NUREG-1432, the proposed change will allow the deletion of the following limits which are currently included in TS SR 4.8.1.1.2.c:

- Water and sediment content of less than or equal to 0.05 volume percent
- Kinematic viscosity @ 40°C of greater than or equal to 1.9 centistokes, but less than or equal to 4.1 centistokes
- Specific gravity as specified by the manufacturer @ 60/60°F of greater than or equal to 0.85 but less than or equal to 0.99 or an API gravity @ 60°F of greater than or equal to 11 degrees but less than or equal to 35 degrees
- Impurity level of less than 2 mg of insolubles per 100 ml

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The proposed change to TS 6.5.13 requires that:

- Clear and bright appearance with a proper color or water and sediment content are within limits.
- Flash point and kinematic viscosity are within limits of ASTM 2D fuel oil.
- API gravity or an absolute specific gravity is within limits.
- Particulate concentration of the fuel oil is ≤ 10 mg/l (This limit is representative of the actual condition of the fuel oil rather than the current limit that is based on an artificial aging of the fuel oil, as described above.).

The acceptance criteria for the above parameters will be included in the licensee controlled Diesel Fuel Oil Testing program procedures that are reviewed in accordance with 10 CFR 50.59. Since these details are not necessary to adequately describe the actual regulatory requirement, they can be moved to a licensee controlled document without a significant impact on safety. Placing these details in controlled documents provides adequate assurance that they will be maintained.

New Fuel Oil Testing

Currently, the following tests of the new fuel oil are required prior to its addition into the storage tanks:

- 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)

The proposed change continues to perform testing similar to the current requirements as follows:

- Clear and bright appearance with proper color or a water and sediment content within limits (proposed TS 6.5.13 a.3)
- A flash point and kinematic viscosity (proposed TS 6.5.13 a.2)
- An API gravity or absolute specific gravity (proposed TS 6.5.13 a.1)
- The oxidation stability of new fuel oil will no longer be tested; however, a monthly sample of the stored fuel oil will be performed to determine the particulate concentration. The proposed test is representative of the actual condition of fuel oil rather than results that are obtained based on the artificial test that is currently performed to obtain impurity levels. The current SR (4.8.1.1.2.c.2) includes a requirement to complete the analysis within 7 days after obtaining the sample. This will be deleted. (proposed TS 6.5.13 c)
- The remaining tests that are currently required by SR 4.8.1.1.2.c.3 will continue to be performed in accordance with proposed TS 6.5.13 b. The completion time for proposed TS 6.5.13 b is 31 days instead of the 14-day analysis completion time as is reflected in the current SR (4.8.1.1.2.c.3). RG 1.137 states that "Analysis of the other properties of the fuel oil listed in the applicable specification should be completed

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> within 2 weeks of the addition." Waterford 3 will take an exception to this guidance with the proposed change. 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.

Stored Fuel Oil Testing

Presently, a sample of stored fuel oil is required to be obtained at least once per 92 days. The following tests are currently required for stored fuel oil:

- 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)

The proposed change will eliminate the above sampling requirements for stored fuel oil and include a requirement to analyze the total particulate concentration of the stored fuel oil every 31 days. The proposed changes reflect the current industry standard for EDG fuel oil testing programs. Over the storage life of Waterford 3 fuel oil, the properties tested are not expected to change and performing the currently required tests once on the new fuel oil (and not again on stored fuel oil) provides adequate assurance of the proper quality fuel oil. 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 EDG fuel oil will support EDG operability.

Proposed TS 6.5.13 c will change the testing frequency for stored fuel oil from once per 92 days to every 31 days. The 31 day test frequency takes into consideration fuel oil degradation trends that indicate that particulate concentration is unlikely to change significantly between sampling intervals. The proposed test frequency does not pose an undue burden.

Applicability of SR 4.0.2 and SR 4.0.3

A statement regarding the Applicability of SR 4.0.2 and SR 4.0.3 will be added to clarify that the allowances provided by these general SRs are applicable to the identified program (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 (4.8.1.12.c) which is being relocated to the program (TS 6.5.13).

Applicability of TSTF-374-A

The proposed change will result in the removal of specific reference to ASTM Standards and is consistent with TSTF-374-A, which was approved by the NRC on January 13, 2005. The TSTF specifically proposed revisions to Standard Technical Specifications (STS) 5.5.13 to relocate the ASTM Standard from the Administrative Controls Section of TS to a licensee-

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controlled document. A change is proposed to the Waterford 3 TS Bases associated with SR 4.8.1.3.2 that includes these details.

The TSTF also included an option to allow the performance of alternate water and sediment content test to establish the acceptability of new fuel oil prior to addition to the storage tank. The current Waterford 3 SR requires test results to measure the water and sediment content which is consistent with the changes made in the TSTF and will be retained in the new administrative TS.

Surveillance Requirements 4.8.1.1.2.h and 4.8.1.1.2.i

These SRs will be deleted in the proposed change. Regulatory Guide 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 preventative maintenance cleaning activity and will continue to be performed in accordance with the Regulatory Guide requirements. The cleaning and inspection activities will be maintained in site procedures that are reviewed in accordance with 10 CFR 50.59. The proposed change is consistent with NUREG-1432, *Standard Technical Specifications Combustion Engineering Plants* (Reference 1).

The deletion of these SRs is acceptable because the SRs do not meet any of the criteria included in 10 CFR 50.36, *Technical specifications*, subpart (c)(2)(ii) as follows:

Criterion 1: Installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary.

The SRs to drain, clean and inspect the interior of the FOST have no relationship to the reactor coolant pressure boundary.

Criterion 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.

The deletion of these SRs will not impact or present a challenge to the integrity of a fission product barrier. Normal sample requirements will continue to be performed on the fuel oil assuring its quality is acceptable.

Criterion 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.

The FOST provides 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 EDG fuel oil will continue to be sampled to assure its quality. Deletion of these SRs will not challenge the capability of the EDG to perform its intended accident mitigation function.

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Criterion 4: A structure, system, or component which operating experience of probabilistic risk assessment has shown to be significant to public health and safety.

Fuel oil will continue to be maintained within the acceptable quality limits with the deletion of these SRs. Therefore, the health and safety of the public will not be reduced by the proposed change.

5.0 REGULATORY ANALYSIS

5.1 <u>Applicable Regulatory Requirements/Criteria</u>

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, *Domestic Licensing of Production and Utilization Facilities*, 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 changes to the Waterford Steam Electric Station, Unit 3 (Waterford 3) Technical Specifications (TS) do not reduce Waterford 3's conformance with GDC 17.

The Waterford 3 fuel oil program is based on Regulatory Guide (RG) 1.137, *Fuel-Oil Systems for Standby Diesel Generators*, and ANSI N195-1976, *Fuel Oil Systems for Standby Diesel-Generators*. The proposed change will result in using more recently developed and approved standards and methods than those referenced in the RG or the ANSI standard and therefore takes exception to these documents.

Fuel oil testing is in compliance with the Code of Federal Regulations, 10 CFR 50, Appendix B, *Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants.*

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 Updated Final Safety Analysis Report (UFSAR).

5.2 No Significant Hazards Consideration

The proposed changes will revise the Waterford Steam Electric Station, Unit 3 (Waterford 3) Technical Specification (TS) Surveillance Requirements (SRs) associated with the Emergency Diesel Generator (EDG). The following changes are proposed:

- A new TS Limiting Condition for Operation (LCO), applicability and associated actions and surveillance requirements will be added to address the volume and quality of the fuel in the fuel oil storage tanks (FOSTs);
- The minimum volume requirements for the FOST will be deleted from their current location and relocated to new TS;

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- Surveillance Requirements (SR) that require verification of the fuel level in the diesel generator FOST will be deleted and the appropriate details relocated to a proposed SR;
- Surveillance Requirements that establish the testing requirements for the diesel fuel oil will be deleted and the appropriate details relocated to a new SR and new Diesel Fuel Oil Testing Program.
- Surveillance Requirements that are associated with periodic draining, cleaning and visual inspection of the FOSTs will be deleted.

The proposed changes integrate NUREG-1432, Revision 3.1, *Standard Technical Specifications Combustion Engineering Plants,* into the current licensing bases and incorporate Technical Specification Task Force (TSTF) Improved Standard Technical Specifications Change Traveler, TSTF-374-A, *Revision to TS 5.5.13 and Associated TS Bases for Diesel Fuel Oil.*

Entergy Operations, Inc. has evaluated whether or not a significant hazards consideration is involved with the proposed amendment 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 proposed changes in the diesel fuel oil testing program will continue to ensure that new and stored diesel fuel oil properties are maintained within specified limits to assure EDG operation. The testing of diesel generator fuel oil is not considered an initiator or a mitigating factor in any previously evaluated accidents.

The deletion of the requirement to drain and inspect the fuel oil storage tank (FOST) does not impact any of the previously analyzed accidents. Periodic testing of the fuel oil as required by the Diesel Fuel Oil Testing Program will identify poor quality oil. Actions are included that will require the quality of the oil to be maintained within acceptable limits. Draining and inspecting the FOST are not considered an accident initiator or mitigating factor in any previously evaluated accidents.

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

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

Response: No.

2.

The proposed change results in changes to the existing diesel fuel oil testing program and the deletion of the SRs associated with the performance of periodic draining and inspection of the FOSTs. No plant modifications are required to support the proposed Attachment 1 to W3F1-2007-0036 Page 14 of 14

3.

TS changes. There is no impact to plant structures, systems, or components, or in the design of the plant structures, systems, or components.

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

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

Response: No.

The proposed change does not result in any plant modifications. Diesel generator fuel oil quantity and quality will continue to be maintained within acceptable limits 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

Arkansas Nuclear One, Unit 2 (ANO-2) TS Amendment No. 255 dated September 28, 2004. This amendment included the approval of the relocation of the details contained in ANO-2 TS SR associated with sampling diesel fuel oil to the Diesel Fuel Oil Testing Program (TS 6.5.13).

7.0 **REFERENCES**

- 1. NUREG-1432, Revision 3.1, *Standard Technical Specifications Combustion* Engineering Plants
- 2. Regulatory Guide 1.137, *Fuel-Oil Systems for Standby Diesel Generators*, Revision 1, October 1979
- 3. American National Standards Institute, Inc. (ANSI) Standard ANSI N195-1976, *Fuel* Oil Systems for Standby Diesel-Generators
- 4. Technical Specification Task Force (TSTF) Improved Standard Technical Specifications Change Traveler, TSTF-374-A, *Revision to TS 5.5.13 and Associated TS Bases for Diesel Fuel Oil*

Attachment 2

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Proposed Technical Specification Changes (mark-up)

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3/4.8 ELECTRICAL POWER SYSTEMS

3/4.8.1 A.C. SOURCES

OPERATING

LIMITING CONDITION FOR OPERATION

3.8.1.1 As a minimum, the following A.C. electrical power sources shall be OPERABLE:

- a. Two physically independent circuits between the offsite transmission network and the onsite Class 1E distribution system, and
- b. Two separate and independent diesel generators, each with:
 - 1. Diesel oil feed tanks containing a minimum volume of 339 gallons of fuel, and
 - 2. A separate diesel generator fuel oil storage tank-containing:

a. A minimum volume of 39,300 gallons of fuel, or

- A fuel oil volume less than 39,300 gallons and greater than 37,000 gallons of fuel for a period not to exceed 5 days (provided replacement fuel oil is onsite within the first 48 hours), and
- 3. A separate fuel transfer pump.

<u>APPLICABILITY:</u> MODES 1, 2, 3, and 4. <u>ACTION:</u>

- a. With one offsite circuit of 3.8.1.1a inoperable, demonstrate the OPERABILITY of the remaining offsite A.C. circuit by performing Surveillance Requirement 4.8.1.1.1a within 1 hour and at least once per 8 hours thereafter. Restore the offsite A.C. circuit to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- b. With one diesel generator of 3.8.1.1b inoperable:
 - (1) Demonstrate the OPERABILITY of the remaining A.C. circuits by performing Surveillance Requirements 4.8.1.1.1a (separately for each offsite A.C. circuit) within 1 hour and at least once per 8 hours thereafter. If the diesel generator became inoperable due to any cause other than an inoperable support system, an independently testable component, or preplanned maintenance or testing, demonstrate the OPERABILITY of the remaining OPERABLE diesel generator (unless it has been successfully tested in the last 24 hours) by performing Surveillance Requirement 4.8.1.1.2a.4 within 8 hours unless the absence of any potential common mode failure for the remaining diesel generator is demonstrated.
 - (2) Restore the diesel generator to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours, unless the following condition exists:

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ELECTRICAL POWER SYSTEMS

SURVEILLANCE REQUIREMENTS

4.8.1.1.1 Each of the above required independent circuits between the offsite transmission network and the onsite Class 1E distribution system shall be:

- a. Determined OPERABLE at least once per 7 days by verifying correct breaker alignments, indicated power availability, and
- b. Demonstrated OPERABLE at least once per 18 months by transferring manually and automatically unit power supply from the normal circuit to the alternate circuit.

4.8.1.1.2 Each diesel generator shall be demonstrated OPERABLE*:

- At least once per 31 days on a STAGGERED TEST BASIS by:
 - 1. Verifying the fuel level in the diesel oil feed tank,
 - 2. Verifying the fuel level in the diesel generator fuel oil storage tank Deleted,
 - 3. Verifying the fuel transfer pump can be started and transfers fuel from the storage system to the diesel oil feed tank,
 - 4. Verifying the diesel starts**. The generator voltage and frequency shall be at least 3920 volts and 58.8 Hz in ~ 10 seconds after the start signal. The steady state voltage and frequency shall be maintained at 4160 + 420, -240 volts and 60 ±1.2 Hz. The diesel generator shall be started for this test by using one of the following signals:
 - a) Manual.
 - b) Simulated loss-of-offsite power by itself.
 - c) Simulated loss-of-offsite power in conjunction with an ESF actuation test signal.
 - d) An ESF actuation test signal by itself.

*All planned starts for the purpose of surveillance in this section may be preceded by a prelube period as recommended by the manufacturer.

**A modified diesel generator start involving idling and gradual acceleration to synchronous speed may be used for this surveillance requirement as recommended by the manufacturer. When modified start procedures are not used, the time, speed, voltage, and frequency tolerances of this surveillance requirement must be met.

ELECTRICAL POWER SYSTEM

SURVEILLANCE REQUIREMENTS (Continued)

- 5. Verifying the generator is synchronized, loaded to an indicated 4000-4400 Kw* in accordance with the manufacturer's recommendation and operates for at least an additional 60 minutes#, and
- 6. Verifying the diesel generator is aligned to provide standby power to the associated emergency busses.
- b. At least once per 31 days and after each operation of the diesel where the period of operation was greater than or equal to 1 hour by checking for and removing accumulated water from the diesel oil feed tanks.
- c. At least once per 92 days and from new fuel oil prior to addition to the storage tanks, by obtaining a sample of fuel oil in accordance with ASTM-D270-1975, and by verifying that the sample meets the following minimum requirements and is tested within the specified time limits: Deleted
 - As soon as sample is taken (or prior to adding new fuel to the storage tank) verify in accordance with the test specified in ASTM-D975-77 that the sample has:
 - a) A water and sediment content of less than or equal to 0.05 volume percent.
 - b) A kinematic viscosity @ 40°C of greater than or equal to 1.9 centistokes, but less than or equal to 4.1 centistokes.
 - c) A specific gravity as specified by the manufacturer @ 60/60°F of greater than or equal to 0.85 but less than or equal to 0.99 or an API gravity @ 60°F of greater than or equal to 11 degrees but less than or equal to 35 degrees.
 - 2. Verify an impurity level of less than 2 mg of insolubles per 100 ml when tested in accordance with ASTM-D2274-70; analysis shall be completed within 7 days after obtaining the sample but may be performed after the addition of new fuel oil; and

#This surveillance requirement shall be preceded by and immediately follow without shutdown a successful performance of 4.8.1.1.2a.4 or 4.8.1.1.2d.

^{*}This band is meant as guidance to avoid routine overloading of the engine. Loads in excess of this band for special testing under direct monitoring of the manufacturer or momentary variation due to changing bus loads shall not invalidate the test.

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ELECTRICAL POWER SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- 3. Verify the other properties specified in Table 1 of ASTM-D975-1977 and Regulatory Guide 1.137, Revision 1, October 1979, Position 2.a., when tested in accordance with ASTM-D975-1977; analysis shall be completed within 14 days after obtaining the sample but may be performed after the addition of new fuel oil. Failure to meet this requirement shall not affect diesel generator OPERABILITY; however, corrective action shall be initiated within 72 hours to return the fuel oil supply to within acceptable limits.
- d. At least once per 184 days a diesel generator fast start test shall be performed in accordance with TS 4.8.1.1.2a.4. Performance of the 184 day fast start test satisfies the 31 day testing requirements specified in TS 4.8.1.1.2a.4.
- e. At least once per 18 months by:
 - 1. Verifying the generator capability to reject a load of greater than or equal to 498 kW while maintaining voltage at 4160 +420, -240 volts and frequency at 60 +4.5, -1.2 Hz.
 - 2. Verifying the generator capability to reject a load of an indicated 4000-4400 kW without tripping. The generator voltage shall not exceed 5023 volts during and following the load rejection.
 - 3. During shutdown, simulating a loss-of-offsite power by itself, and:
 - a) Verifying deenergization of the emergency busses and load shedding from the emergency busses.
 - b) Verifying the diesel starts on the auto-start signal, energizes the emergency busses and the permanently connected loads within 10 seconds after the auto-start signal, energizes the autoconnected shutdown loads through the load sequencer and operates for greater than or equal to 5 minutes while its generator is loaded with the shutdown loads. After energization, the steadystate voltage and frequency of the emergency busses shall be maintained at 4160 +420, -240 volts and 60 +1.2, -0.3 Hz during this test.
 - 4. Verifying that on an SIAS actuation test signal (without loss-of-offsite power) the diesel generator starts on the auto-start signal and operates on standby for greater than or equal to 5 minutes. The steady-state generator voltage and frequency shall be 4160 +420, -240 volts and 60 ± 1.2 Hz within 10 seconds after the auto-start signal; the generator voltage and frequency shall be maintained within these limits during this test.

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ELECTRICAL POWER SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- 8. During shutdown, verifying the diesel generator's capability to:
 - Synchronize with the offsite power source while the generator is loaded with its emergency loads upon a simulated restoration of offsite power,
 - b) Transfer its loads to the offsite power source, and
 - c) Be restored to its standby status.
- 9. During shutdown, verifying that with the diesel generator operating in a test mode (connected to its bus), a simulated safety injection signal overrides the test mode by (1) returning the diesel generator to standby operation and (2) automatically energizes the emergency loads with offsite power.
- 10. Verifying that each fuel transfer pump transfers fuel to its associated diesel oil feed tank by taking suction from the opposite train fuel oil storage tank via the installed cross connect.
- 11. During shutdown, verifying that the automatic load sequence timer is OPERABLE with the time of each load block within ±10% of the sequenced load block time.
- 12. Verifying that the following diesel generator lockout features prevent diesel generator starting only when required:
 - a) turning gear engaged
 - b) emergency stop
 - c) loss of D.C. control power
 - d) governor fuel oil linkage tripped
- f. Deleted
- g. At least once per 10 years or after any modifications which could affect diesel generator interdependence by starting the diesel generators simultaneously, during shutdown, and verifying that the diesel generators accelerate to at least 600 rpm ($60 \pm 1.2 \text{ Hz}$) in less than or equal to 10 seconds.
- h. At least once per 10 years by:
 - 1. Draining each diesel generator fuel oil storage tank, removing the accumulated sediment, and cleaning the tank using a sodium hypochlorite solution or equivalent. Deleted

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ELECTRICAL POWER SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

i. By performing a visual Inspection of the interior of the diesel generator fuel oil storage tanks each time the tank Is drained and, if necessary, clean the tank with a sodium hypochlorite solution, or equivalent.Deleted

4.8.1.1.3 Reports — (Not Used)

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ELECTRICAL POWER SYSTEMS

A.C. SOURCES

SHUTDOWN

LIMITING CONDITION FOR OPERATION

3.8.1.2 As a minimum, the following A.C. electrical power sources shall be OPERABLE:

- a. One circuit between the offsite transmission network and the onsite Class 1E distribution system, and
- b. One diesel generator with:
 - 1. A diesel oil feed tank containing a minimum volume of 339 gallons of fuel, and
 - 2. The diesel fuel oil storage tanks containing:

a. A minimum volume of 39,300 gallons of fuel, or

- A fuel oil volume less than 39,300 gallons and greater than 37,000 gallons of fuel for a period not to exceed 5 days (provided replacement fuel oil is onsite within the first 48 hours), and
- 3. A fuel transfer pump.

APPLICABILITY: MODES 5 and 6.

ACTION:

With less than the above minimum required A.C. electrical power sources OPERABLE, immediately suspend all operations involving CORE ALTERATIONS, operations involving positive reactivity additions that could result in loss of required SHUTDOWN MARGIN or boron concentration, movement of irradiated fuel, or crane operation with loads over the fuel storage pool. In addition, when in MODE 5 with the reactor coolant loops not filled, or in MODE 6 with the water level less than 23 feet above the top of the fuel seated in the reactor pressure vessel, immediately initiate corrective action to restore the required sources to OPERABLE status.

SURVEILLANCE REQUIREMENTS

4.8.1.2 The above required A.C. electrical power sources shall be demonstrated OPERABLE by the performance of each of the Surveillance Requirements of 4.8.1.1.1 and 4.8.1.1.2 (except for Surveillance Requirement 4.8.1.1.2a.5.)

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ELECTRICAL POWER SYSTEMS

DIESEL FUEL OIL

LIMITING CONDITION FOR OPERATION

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

APPLICABILITY: When associated DG is required to be OPERABLE.

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

- 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.

SURVEILLANCE REQUIREMENTS

- 4.8.1.3.1 At least once per 31 days on a STAGGERED TEST BASIS verify each fuel oil storage tank volume.
- 4.8.1.3.2 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.

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ADMINISTRATIVE CONTROLS

6.5.10 not used

6.5.11 not used

6.5.12 not used

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 \leq 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.

Pages 6-9 through page 6-13 not used

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Attachment 3

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Proposed Technical Specification Changes (revised)

3/4.8 ELECTRICAL POWER SYSTEMS

3/4.8.1 A.C. SOURCES

OPERATING

LIMITING CONDITION FOR OPERATION

3.8.1.1 As a minimum, the following A.C. electrical power sources shall be OPERABLE:

- a. Two physically independent circuits between the offsite transmission network and the onsite Class 1E distribution system, and
- b. Two separate and independent diesel generators, each with:
 - 1. Diesel oil feed tanks containing a minimum volume of 339 gallons of fuel, and
 - 2. A separate diesel generator fuel oil storage tank, and
 - 3. A separate fuel transfer pump.

<u>APPLICABILITY:</u> MODES 1, 2, 3, and 4. <u>ACTION:</u>

- a. With one offsite circuit of 3.8.1.1a inoperable, demonstrate the OPERABILITY of the remaining offsite A.C. circuit by performing Surveillance Requirement 4.8.1.1.1a within 1 hour and at least once per 8 hours thereafter. Restore the offsite A.C. circuit to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.
- b. With one diesel generator of 3.8.1.1b inoperable:
 - (1) Demonstrate the OPERABILITY of the remaining A.C. circuits by performing Surveillance Requirements 4.8.1.1.1a (separately for each offsite A.C. circuit) within 1 hour and at least once per 8 hours thereafter. If the diesel generator became inoperable due to any cause other than an inoperable support system, an independently testable component, or preplanned maintenance or testing, demonstrate the OPERABILITY of the remaining OPERABLE diesel generator (unless it has been successfully tested in the last 24 hours) by performing Surveillance Requirement 4.8.1.1.2a.4 within 8 hours unless the absence of any potential common mode failure for the remaining diesel generator is demonstrated.
 - (2) Restore the diesel generator to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours, unless the following condition exists:

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ELECTRICAL POWER SYSTEMS

SURVEILLANCE REQUIREMENTS

4.8.1.1.1 Each of the above required independent circuits between the offsite transmission network and the onsite Class 1E distribution system shall be:

- a. Determined OPERABLE at least once per 7 days by verifying correct breaker alignments, indicated power availability, and
- b. Demonstrated OPERABLE at least once per 18 months by transferring manually and automatically unit power supply from the normal circuit to the alternate circuit.
- 4.8.1.1.2 Each diesel generator shall be demonstrated OPERABLE*:
 - a. At least once per 31 days on a STAGGERED TEST BASIS by:
 - 1. Verifying the fuel level in the diesel oil feed tank,
 - 2. Deleted,
 - 3. Verifying the fuel transfer pump can be started and transfers fuel from the storage system to the diesel oil feed tank,
 - 4. Verifying the diesel starts**. The generator voltage and frequency shall be at least 3920 volts and 58.8 Hz in ~ 10 seconds after the start signal. The steady state voltage and frequency shall be maintained at 4160 + 420, -240 volts and 60 ±1.2 Hz. The diesel generator shall be started for this test by using one of the following signals:
 - a) Manual.
 - b) Simulated loss-of-offsite power by itself.
 - c) Simulated loss-of-offsite power in conjunction with an ESF actuation test signal.
 - d) An ESF actuation test signal by itself.

*All planned starts for the purpose of surveillance in this section may be preceded by a prelube period as recommended by the manufacturer.

**A modified diesel generator start involving idling and gradual acceleration to synchronous speed may be used for this surveillance requirement as recommended by the manufacturer. When modified start procedures are not used, the time, speed, voltage, and frequency tolerances of this surveillance requirement must be met. Attachment 3 to W3F1-2007-0036 Page 3 of 9

ELECTRICAL POWER SYSTEM

SURVEILLANCE REQUIREMENTS (Continued)

- 5. Verifying the generator is synchronized, loaded to an indicated 4000-4400 Kw* in accordance with the manufacturer's recommendation and operates for at least an additional 60 minutes#, and
- 6. Verifying the diesel generator is aligned to provide standby power to the associated emergency busses.
- b. At least once per 31 days and after each operation of the diesel where the period of operation was greater than or equal to 1 hour by checking for and removing accumulated water from the diesel oil feed tanks.

c. Deleted

*This band is meant as guidance to avoid routine overloading of the engine. Loads in excess of this band for special testing under direct monitoring of the manufacturer or momentary variation due to changing bus loads shall not invalidate the test.

#This surveillance requirement shall be preceded by and immediately follow without shutdown a successful performance of 4.8.1.1.2a.4 or 4.8.1.1.2d.

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ELECTRICAL POWER SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- d. At least once per 184 days a diesel generator fast start test shall be performed in accordance with TS 4.8.1.1.2a.4. Performance of the 184 day fast start test satisfies the 31 day testing requirements specified in TS 4.8.1.1.2a.4.
- e. At least once per 18 months by:
 - 1. Verifying the generator capability to reject a load of greater than or equal to 498 kW while maintaining voltage at 4160 +420, -240 volts and frequency at 60 +4.5, -1.2 Hz.
 - 2. Verifying the generator capability to reject a load of an indicated 4000-4400 kW without tripping. The generator voltage shall not exceed 5023 volts during and following the load rejection.
 - 3. During shutdown, simulating a loss-of-offsite power by itself, and:
 - a) Verifying deenergization of the emergency busses and load shedding from the emergency busses.
 - b) Verifying the diesel starts on the auto-start signal, energizes the emergency busses and the permanently connected loads within 10 seconds after the auto-start signal, energizes the autoconnected shutdown loads through the load sequencer and operates for greater than or equal to 5 minutes while its generator is loaded with the shutdown loads. After energization, the steadystate voltage and frequency of the emergency busses shall be maintained at 4160 +420, -240 volts and 60 +1.2, -0.3 Hz during this test.
 - 4. Verifying that on an SIAS actuation test signal (without loss-of-offsite power) the diesel generator starts on the auto-start signal and operates on standby for greater than or equal to 5 minutes. The steady-state generator voltage and frequency shall be 4160 +420, -240 volts and 60 ± 1.2 Hz within 10 seconds after the auto-start signal; the generator voltage and frequency shall be maintained within these limits during this test.

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ELECTRICAL POWER SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- 8. During shutdown, verifying the diesel generator's capability to:
 - a) Synchronize with the offsite power source while the generator is loaded with its emergency loads upon a simulated restoration of offsite power.
 - b) Transfer its loads to the offsite power source, and
 - c) Be restored to its standby status.
- 9. During shutdown, verifying that with the diesel generator operating in a test mode (connected to its bus), a simulated safety injection signal overrides the test mode by (1) returning the diesel generator to standby operation and (2) automatically energizes the emergency loads with offsite power.
- 10. Verifying that each fuel transfer pump transfers fuel to its associated diesel oil feed tank by taking suction from the opposite train fuel oil storage tank via the installed cross connect.
- During shutdown, verifying that the automatic load sequence timer is OPERABLE with the time of each load block within ±10% of the sequenced load block time.
- 12. Verifying that the following diesel generator lockout features prevent diesel generator starting only when required:
 - a) turning gear engaged
 - b) emergency stop
 - c) loss of D.C. control power
 - d) governor fuel oil linkage tripped

f. Deleted

- g. At least once per 10 years or after any modifications which could affect diesel generator interdependence by starting the diesel generators simultaneously, during shutdown, and verifying that the diesel generators accelerate to at least 600 rpm ($60 \pm 1.2 \text{ Hz}$) in less than or equal to 10 seconds.
- h. Deleted

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AMENDMENT NO. 23,92,126,180, 211,

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ELECTRICAL POWER SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

i. Deleted

4.8.1.1.3 Reports — (Not Used)

WATERFORD - UNIT 3

AMENDMENT NO. 23,126,132,

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ELECTRICAL POWER SYSTEMS

A.C. SOURCES

SHUTDOWN

LIMITING CONDITION FOR OPERATION

3.8.1.2 As a minimum, the following A.C. electrical power sources shall be OPERABLE:

- a. One circuit between the offsite transmission network and the onsite Class 1E distribution system, and
- b. One diesel generator with:
 - 1. A diesel oil feed tank containing a minimum volume of 339 gallons of fuel, and
 - 2. The diesel fuel oil storage tanks, and
 - 3. A fuel transfer pump.

APPLICABILITY: MODES 5 and 6.

<u>ACTION:</u>

With less than the above minimum required A.C. electrical power sources OPERABLE, immediately suspend all operations involving CORE ALTERATIONS, operations involving positive reactivity additions that could result in loss of required SHUTDOWN MARGIN or boron concentration, movement of irradiated fuel, or crane operation with loads over the fuel storage pool. In addition, when in MODE 5 with the reactor coolant loops not filled, or in MODE 6 with the water level less than 23 feet above the top of the fuel seated in the reactor pressure vessel, immediately initiate corrective action to restore the required sources to OPERABLE status.

SURVEILLANCE REQUIREMENTS

4.8.1.2 The above required A.C. electrical power sources shall be demonstrated OPERABLE by the performance of each of the Surveillance Requirements of 4.8.1.1.1 and 4.8.1.1.2 (except for Surveillance Requirement 4.8.1.1.2a.5.)

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ELECTRICAL POWER SYSTEMS

DIESEL FUEL OIL

LIMITING CONDITION FOR OPERATION

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

APPLICABILITY: When associated DG is required to be OPERABLE.

<u>ACTION:</u> (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.

SURVEILLANCE REQUIREMENTS

- 4.8.1.3.1 At least once per 31 days on a STAGGERED TEST BASIS verify each fuel oil storage tank volume.
- 4.8.1.3.2 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.

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ADMINISTRATIVE CONTROLS

6.5.10 not used

6.5.11 not used

6.5.12 not used

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 \leq 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.

Pages 6-9 through page 6-13 not used

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Attachment 4

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Changes to Technical Specification Bases Pages For Information Only

3/4.8 ELECTRICAL POWER SYSTEMS BASES 3/4.8.1, 3/4.8.2, and 3/4.8.3 A.C. SOURCES, D.C SOURCES, and ONSITE POWER DISTRIBUTION SYSTEMS

The OPERABILITY of the A.C. and D.C. power sources and associated distribution systems during operation ensures that sufficient power will be available to supply the safety related equipment required for (1) the safe shutdown of the facility and (2) the mitigation and control of accident conditions within the facility. The minimum specified independent and redundant A.C. and D.C. power sources and distribution systems satisfy the requirements of General Design Criterion I7 of Appendix A to 10 CFR Part 50. → (DRN 04-1243, Ch. 38)

The Limiting Condition for Operation (LCO) ensures that each diesel generator storage tank contains fuel oil of a sufficient volume to operate each diesel generator for a period of 7 days. The LCO limit is 39,300 gallons useable corresponds to a level of 96.41% in the fuel oil storage tank. This useable 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 Guile 1.137 October 1979. To account for instrument uncertainty at least 97.86% indicated level is maintained in the fuel oil storage tank 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 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 LCO which allow 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 LCO limit of 37,000 gallons useable corresponds to a level of 90.76% in the fuel oil storage tank. This useable 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 fuel oil storage tank to assure that 37,000 usable gallons are available.

The ACTION requirements specified for the levels of degradation of the power sources provide restriction upon continued facility operation commensurate with the level of degradation. The OPERABILITY of the power sources are consistent with the initial condition assumptions of the safety analyses and are based upon maintaining at least one redundant set of onsite A.C. and D.C. power sources and associated distribution systems OPERABLE during accident conditions coincident with an assumed loss-of-offsite power and single failure of the other onsite A.C. source. When one diesel generator is inoperable to perform either preplanned maintenance (both preventive and corrective) or upplanned corrective maintenance work, the allowed-outage-time (AOT) can be extended from 72 hours to 10 days, if a temporary emergency diesel generator (TEDG) is verified available and aligned for backup operation to the permanent plant EDG removed from service. The TEDG will be available prior to removing the permanent plant EDG from service for the extended preplanned maintenance work or prior to exceeding the 72-hour AOT for the extended unplanned corrective maintenance work. A Configuration Risk Management Program (CRMP) is implemented to assess risk of this activity when applying this ACTION. The TEDG availability is verified by: (1) starting the TEDG and verifying proper operation; (2) verifying 24 hour onsite fuel supply; and (3) ensuring the TEDG

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ELECTRICAL POWER SYSTEMS

BASES

3/4.8.1, 3/4.8.2, and 3/4.8.3 A.C. SOURCES, AND ONSITE POWER DISTRIBUTION SYSTEMS (Continued)

is aligned to supply power through a 4.16 kV non-safety bus to the 4.16kV safety bus. A status check for TEDG availability will also be performed at least once every 72 hours following the initial TEDG availability verification. The status check shall consists of: (1) verifying the TEDG equipment is mechanically and electrically ready for manual operation; (2) verifying 24 hour onsite fuel supply; and (3) ensuring the TEDG is aligned to supply power through a 4.16 kV non-safety bus to the 4.16 kV safety bus. If the TEDG becomes unavailable during the 10 day AOT and cannot be restored to available status, the EDG AOT reverts back to 72-hours. The 72 hours begins with the discovery of the TEDG unavailability, not to exceed a total of 10 days from the time the EDG originally became inoperable. The A.C. and D.C. source allowable out-ofservice times are based on Regulatory Guide 1.93, "Availability of Electrical Power Sources," December 1974. When one diesel generator is inoperable, there is an additional ACTION requirement to verify that all required systems, subsystems, trains, components, and devices that depend on the remaining OPERABLE diesel generator as a source of emergency power are also OPERABLE, and that the steam-driven auxiliary feedwater pump is OPERABLE. This requirement is intended to provide assurance that a loss-of-offsite power event will not result in a complete loss of safety function of critical systems during the period one of the diesel generators is inoperable. The term verify as used in this context means to administratively check by examining logs or other information to determine if certain components are out-of-service for maintenance or other reasons. It does not mean to perform the Surveillance Requirements needed to demonstrate the OPERABILITY of the component.

→ (DRN 03-375, Ch. 19)

The OPERABILITY of the minimum specified A.C. and D.C. power sources and associated distribution systems during shutdown and refueling ensures that(1) the facility can be maintained in the shutdown or refueling condition for extended time periods and (2) sufficient instrumentation and control capability is available for monitoring and maintaining the unit status. With the minimum AC and DC power sources and associated distribution systems inoperable the ACTION requires the immediate suspension of various activities including operations involving positive reactivity additions that could result in loss of required SHUTDOWN MARGIN (MODE 5) or boron concentration (MODE 6). Suspending positive reactivity additions that could result in failure to meet the minimum SHUTDOWN MARGIN or boron concentration limit is required to assure continued safe operation. Introduction of coolant inventory must be from sources that have a boron concentration greater than that what would be required in the RCS for minimum SHUTDOWN MARGIN or refueling concentration. This may result in an overall reduction in boron concentration, but provides acceptable margin to maintaining subcritical operation. Introduction of temperature changes, including increases when operating with a positive moderator temperature coefficient, must also be evaluated to ensure they do not result in a loss of required SHUTDOWN MARGIN. Suspension of these activities does not preclude completion of actions to establish a safe conservative condition. ← (DRN 03-375, Ch. 19)



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Insert 1

LCO 3.8.1.3

ACTION a

This ACTION ensures that each diesel generator fuel oil storage tank (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 useable corresponds to a level of 96.41% in the fuel oil storage tank. This useable 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 Guile 1.137 October 1979. 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 useable corresponds to a level of 90.76% in the fuel oil storage tank. This useable 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 fuel oil storage tank to assure that 37,000 usable gallons are available.

ACTION b

This ACTION is entered as a result of a failure to meet the acceptance criterion of particulate limits. 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.

ACTION c

With the new fuel oil properties defined in the Bases for SR 4.8.1.1.2.c 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 diesel generator start and load was required during this time interval and the fuel oil properties were outside limits, there is a high likelihood that the diesel generator would still be capable of performing its intended function.

ACTION d

This ACTION is entered as a result of the failure to meet any of the other ACTIONS.

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SR 4.8.1.3.1

This SR provides verification that there is an adequate inventory of fuel oil in the storage tanks to support each EDG'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 31 day Frequency is adequate to ensure that a sufficient supply of fuel oil is available, since low level alarms are provided and unit operators would be aware of any large uses of fuel oil during this period.

SR 4.8.1.3.2

SR 4.8.1.3.2 provides 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 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 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, however, which can cause engine failure.

Particulate concentrations should 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. It is acceptable to obtain a field sample for subsequent laboratory testing in lieu of field testing.

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

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Attachment 5

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List of Regulatory Commitments

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List of Regulatory Commitments

The following table identifies those actions committed to by Entergy in this document. Any other statements in this submittal are provided for information purposes and are not considered to be regulatory commitments.

	TYPE (Check one)		SCHEDULED
COMMITMENT	ONE- TIME ACTION	CONTINUING COMPLIANCE	COMPLETION DATE (If Required)
Regulatory Guide 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 preventative maintenance cleaning activity and will continue to be performed in accordance with the Regulatory Guide requirements. The cleaning and inspection activities will be maintained in site procedures that are reviewed in accordance with 10 CFR 50.59.		X	
The details of the diesel fuel oil testing program, including the acceptance criteria for the parameters that are included in the sample results, will be maintained in site procedures that are reviewed in accordance with 10 CFR 50.59.		X	