



South Texas Project Electric Generating Station P.O. Box 289 Wadsworth, Texas 77483

November 9, 1999  
NOC-AE-000700  
File No.: G20.02.01  
G21.02.01  
10CFR50.90  
STI: 30983502

U. S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, DC 20555-0001

South Texas Project  
Units 1 and 2  
Docket Nos. STN 50-498, STN 50-499  
Supplement to the Proposed Amendment to  
South Texas Project Technical Specifications to  
Relocate Specification 3/4.8.1.1, Surveillance Requirement 4.8.1.1.2.e.1

Reference: Letter from J.J. Sheppard, South Texas Project to the NRC Document Control Desk, dated September 8, 1998 (NOC-AE-000630)

STP Nuclear Operating Company (STPNOC) submits the attached supplement to the proposed amendment to South Texas Project Operating License NPF-76 and NPF-80 that relocate the 18 month surveillance of Specification 3/4.8.1, "A. C. Sources," subjecting the Standby Diesel Generators to inspections in accordance with procedures prepared in conjunction with its manufacturer's recommendations to a licensee controlled document.

This supplement changes the relocation of the surveillance requirement from the Updated Final Safety Analysis Report (UFSAR) to the Technical Requirements Manual (TRM). It also revises the safety evaluation to specifically discuss the applicability of criteria stated in 10 CFR 50.36 (c) (2) (ii) and 10 CFR 50.36 (c)(3). These changes are being made as a result of comments provided by the NRC.

The changes do not affect the Technical Specification marked-up or incorporated change pages. The Safety Evaluation has been expanded to include a discussion of the applicable 10 CFR 50.36 requirements and to reference the TRM instead of the UFSAR; the changes do not affect the results of the evaluation. The Determination of No Significant Hazards Consideration has been changed to reference the TRM instead of the UFSAR and Attachment 8 now provides the revised Technical Requirements pages. Revision bars in the right margin of affected attachments indicate the changes.

The supplement does not affect the technical content of the proposed changes to the Technical Specification. Therefore, the previous review and approval by the South Texas Project Plant Operations Review Committee and Nuclear Safety Review Board remain valid.

0500498 P

A001

In accordance with 10 CFR 50.91(b), STPNOC is notifying the State of Texas of this request for license amendment by providing a copy of this letter and its attachments.

If there are any questions regarding the proposed amendment, please contact Mr. S. M. Head at (361) 972-7136 or me at (361) 972-8757.



J. J. Sheppard  
Vice President  
Engineering & Technical Services

RAF/

Attachments:

1. Affidavit
2. Description of Changes and Safety Evaluation
3. Determination of No Significant Hazards Consideration
4. Environmental Assessment
5. Annotated Technical Specification Pages
6. Annotated Bases Pages
7. Technical Specification and Bases Pages with Proposed Changes Incorporated
8. Revised Technical Requirements Manual Pages

cc:

Ellis W. Merschhoff  
Regional Administrator, Region IV  
U.S. Nuclear Regulatory Commission  
611 Ryan Plaza Drive, Suite 400  
Arlington, Texas 76011-8064

Thomas W. Alexion  
Project Manager, Mail Code 0-4D3  
U. S. Nuclear Regulatory Commission  
Washington, DC 20555-0001

Cornelius F. O'Keefe  
c/o U. S. Nuclear Regulatory Commission  
P. O. Box 910  
Bay City, TX 77404-0910

J. R. Newman, Esquire  
Morgan, Lewis & Bockius  
1800 M. Street, N.W.  
Washington, DC 20036-5869

M. T. Hardt/W. C. Gunst  
City Public Service  
P. O. Box 1771  
San Antonio, TX 78296

A. Ramirez/C. M. Canady  
City of Austin  
Electric Utility Department  
721 Barton Springs Road  
Austin, TX 78704

Jon C. Wood  
Matthews & Branscomb  
One Alamo Center  
106 S. St. Mary's Street, Suite 700  
San Antonio, TX 78205-3692

Institute of Nuclear Power  
Operations - Records Center  
700 Galleria Parkway  
Atlanta, GA 30339-5957

Richard A. Ratliff  
Bureau of Radiation Control  
Texas Department of Health  
1100 West 49th Street  
Austin, TX 78756-3189

D. G. Tees/R. L. Balcom  
Houston Lighting & Power Co.  
P. O. Box 1700  
Houston, TX 77251

Central Power and Light Company  
ATTN: G. E. Vaughn/C. A. Johnson  
P. O. Box 289, Mail Code: N5012  
Wadsworth, TX 77483

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

# **ATTACHMENT 1**

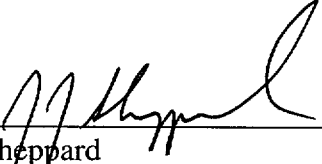
## **AFFIDAVIT**

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

In the Matter )  
 )  
STP Nuclear Operating Company, et al., ) Docket Nos. STN 50-498  
 ) STN 50-499  
South Texas Project )  
Units 1 and 2 )

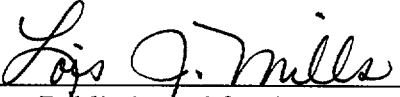
AFFIDAVIT

I, J. J. Sheppard, being duly sworn, hereby depose and say that I am Vice President, Engineering & Technical Services of STP Nuclear Operating Company; that I am duly authorized to sign and file with the Nuclear Regulatory Commission the attached proposed Technical Specification change to relocate Surveillance Requirement 4.8.1.1.2.e.1 regarding the performance of diesel generator inspections to the Technical Requirements Manual; that I am familiar with the content thereof; and that the matters set forth therein are true and correct to the best of my knowledge and belief.

  
\_\_\_\_\_  
J. J. Sheppard  
Vice President  
Engineering & Technical Services

STATE OF TEXAS )  
 )  
COUNTY OF MATAGORDA )

Subscribed and sworn to before me, a Notary Public in and for the State of Texas, this  
9th day of November, 1999.

  
\_\_\_\_\_  
Notary Public in and for the  
State of Texas

**ATTACHMENT 2**

**DESCRIPTION OF CHANGES**

**AND**

**SAFETY EVALUATION**

## Description of Changes and Safety Evaluation

### Background

The proposed change relocates a surveillance requirement for performing 18 month inspections of the Standby Diesel Generators in accordance with procedures prepared in conjunction with its manufacturer's recommendations from the Technical Specifications to the Technical Requirements Manual (TRM). It is similar to a change included in the STP application for Improved Technical Specifications (ITS). The change differs from the ITS application, in that, the application relocates the requirement to plant procedures, while this submittal relocates the requirement to the TRM. This change will be factored into future ITS submittals.

STPNOC is continuing to work with the industry and with the manufacturer of our diesel generators to improve the overall reliability of the units. One aspect of this effort is evaluating the benefit and detriment of continuing to perform the invasive inspection procedures currently performed every 18 months. Discussions are currently underway with our diesel generator manufacturer that may result in changes to the frequency of these inspections. If these discussions result in a change to the frequency currently specified in the vendor manual, it is our intent to revise the TRM to correspond to these changes. Any change will be evaluated in accordance with 10 CFR 50.59.

### Description of Changes

The proposed change will relocate Surveillance Requirement (SR) 4.8.1.1.2.e.1 of Specification 3/4.8.1, "A. C. Sources," and associated Bases to the TRM.

The text of SR 4.8.1.1.2.e.1 will be changed to the term "Deleted".

The Bases for SR 4.8.1.1.2.e.1 will be replaced by the term "Deleted".

Revised TRM pages are provided in Attachment 8.

### Safety Evaluation

In part, the A. C. Sources Specifications are provided to ensure that the Standby Diesel Generators (SBDGs) are OPERABLE. As stated in the current Bases, the purpose of the surveillance requirement is to ensure that unexpected degradation is discovered. This degradation, if discovered, would not necessarily result in the OPERABILITY of the SBDGs being compromised. An evaluation of the condition would be performed and appropriate corrective actions taken. The relocation of this requirement does not change the course of action associated with the discovery of degradation.

The relocation of the 18-month inspection of the SBDGs does not meet any of the criteria of 10 CFR 50.36(c)(2)(ii) or 10 CFR 50.36(c)(3) for information or requirements to be included in the Technical Specifications. The Limiting Condition for Operation criteria requirements of 10 CFR 50.36(c)(2)(ii) and the Surveillance Requirement criterion of 10 CFR 50.36(c)(3) are stated below, with the reason why they do not apply.

50.36(c)(2)(ii)(A): “Installed instrumentation that is used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary.”

The surveillance requirement to perform 18 month inspections of the standby diesel generators does not involve installed instrumentation used to detect, and indicate in the control room, a significant abnormal degradation of the reactor coolant pressure boundary.

50.36(c)(2)(ii)(B): “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 surveillance requirement to perform 18 month inspections of the standby diesel generators does not involve 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

50.36(c)(2)(ii)(C): “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 purpose of the 18 month inspection required by the current surveillance requirement is to maintain the reliability of the standby diesel generator as discussed and required by the Station Blackout Rule (10 CFR 50.63 & Regulatory Guide 1.155). This inspection does not directly demonstrate the operability of the standby diesel generators required to meet Technical Specification Limiting Condition For Operation 3.8.1.1. Therefore it does not affect 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.



50.36(c)(2)(ii)(D): “A structure, system, or component which operating experience or probabilistic risk assessment has shown to be significant to public health and safety.”

The purpose of the 18 month inspection required by the current surveillance requirement is to maintain the reliability of the standby diesel generator as discussed and required by the Station Blackout Rule (10 CFR 50.63 & Regulatory Guide 1.155). This inspection does not directly demonstrate the operability of the standby diesel generators required to meet Technical Specification Limiting Condition For Operation 3.8.1.1. Therefore it does not affect a structure, system, or component which operating experience or probabilistic risk assessment has shown to be significant to public health and safety.

50.36(c)(3): “Surveillance requirements are requirements relating to test, calibration, or inspection to assure that the necessary quality of systems and components is maintained, that facility operation will be within safety limits, and that the limiting conditions for operation will be met.”

The purpose of the 18 month inspection required by the current surveillance requirement is to maintain the reliability of the standby diesel generator as discussed and required by the Station Blackout Rule (10 CFR 50.63 & Regulatory Guide 1.155). The quality of the standby diesel generators is maintained by the STP Nuclear Operating Company program that implements reliability program required by the Station Blackout Rule and is further enhanced by the station’s application of the Maintenance Rule (10 CFR 50.65 & Regulatory Guide 1.160) to the equipment. This inspection does not directly demonstrate the operability of the standby diesel generators required to meet Technical Specification Limiting Condition For Operation 3.8.1.1. Because the operability of the standby diesel generators is maintained, safety limits are not affected.

Changes to the TRM are subject to 10 CFR 50.59 evaluations. The 10 CFR 50.59 evaluation will ensure that changes to this requirement will not have any adverse impact on the safe operation of the plant. This change is consistent with NUREG-1431, “Standard Technical Specifications Westinghouse Plants Specifications”.

### **Implementation**

STPNOC requests that this proposed amendment be reviewed and approved by December 31, 1999. STPNOC also requests 30 days for implementation of the approved amendment.

## **ATTACHMENT 3**

# **DETERMINATION OF NO SIGNIFICANT HAZARDS CONSIDERATION**

## **No Significant Hazards Consideration**

In accordance with the criteria set forth in 10 CFR 50.92, the South Texas Project has evaluated these proposed Technical Specification changes and determined they do not represent a significant hazards consideration. The following is provided in support of this conclusion.

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

The proposed change moves the requirement to perform manufacturer's recommended inspections of the Standby Diesel Generators from the Technical Specifications to the Technical Requirements Manual (TRM). The change does not result in any hardware or operating procedure changes. The requirement being removed from the Technical Specifications is not the initiator of any analyzed event. The TRM is maintained using the provisions of 10 CFR 50.59. Since any changes will be evaluated per 10 CFR 50.59, no significant increase in the probability or consequences of an accident previously evaluated will be allowed without prior NRC approval. Therefore, the changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

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

The proposed change moves the requirement to perform manufacturer's recommended inspections of the Standby Diesel Generators from the Technical Specifications to the TRM. The change does not alter the plant configuration (no new or different type of equipment will be installed) or make changes in methods governing normal plant operation. The change does not impose different requirements. The change does not alter assumptions made in the safety analysis and licensing basis. Therefore, the change will not create the possibility of a new or different kind of accident from any accident previously evaluated.

**3. Does this change involve a significant reduction in a margin of safety?**

The proposed change moves the requirement to perform manufacturer's recommended inspections of the Standby Diesel Generators from the Technical Specifications to the TRM. The change does not reduce the margin of safety since the location of details has no impact on any safety analysis assumptions. In addition, the requirement being transposed from the Technical Specification to the TRM is the same as the existing Technical Specification. Also, the TRM is maintained using the provisions of 10 CFR 50.59. Since any changes will be evaluated per 10 CFR 50.59, no significant reduction in a margin of safety will be allowed without prior NRC approval.

Based on the above, the South Texas Project has evaluated the proposed Technical Specification change and determined it does not represent a significant hazards consideration.

**ATTACHMENT 4**

**ENVIRONMENTAL ASSESSMENT**

## **Environmental Assessment**

The proposed Technical Specification changes have been evaluated against the criteria for and identification of licensing and regulatory actions requiring environmental assessment in accordance with 10 CFR 51.21. The proposed changes meet the criteria for categorical exclusion as provided for under 10 CFR 51.22(c)(9). The following is a discussion of how the proposed changes meet the criteria for categorical exclusion.

Although the proposed amendment involves changes with respect to inspection or surveillance requirements:

- (i) the proposed changes involve no Significant Hazards Consideration (refer to the No Significant Hazards Consideration section of this Change Request);
- (ii) there is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite since the proposed changes do not affect the generation of any radioactive effluents nor do they affect any of the permitted release paths; and
- (iii) there is no significant increase in individual or cumulative occupational radiation exposure.

Accordingly, the proposed changes meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Based on the aforementioned, and pursuant to 10 CFR 51.22(b), no environmental assessment or environmental impact statement need be prepared in connection with the issuance of an amendment to the Technical Specifications incorporating the proposed changes of this request.

**ATTACHMENT 5**

**ANNOTATED**

**TECHNICAL SPECIFICATION PAGES**

### **Annotated Technical Specification Pages**

The following Technical Specification pages are annotated with changes. Additions are indicated with bold type, deletions are designated by line through and are indicated by change bars in the right hand column.

Page 3/4.8-3 (No changes to this page, attached for clarity)

Page 3/4 8-4

ELECTRICAL POWER SYSTEMSSURVEILLANCE 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 during shutdown by transferring the unit power supply from the normal circuit to each of the alternate circuits.

4.8.1.1.2 Each standby diesel generator shall be demonstrated OPERABLE: <sup>(2)(11)</sup>

- a. In accordance with the frequency specified in Table 4.8-1-on a STAGGERED TEST BASIS by:
  - 1) Verifying the fuel level in its associated fuel tank,
  - 2) Verifying the diesel starts from standby condition and accelerates to 600 rpm (nominal) in less than or equal to 10 seconds.<sup>(3)</sup> The generator voltage and frequency shall be  $4160 \pm 416$  volts and  $60 \pm 1.2$  Hz within 10 seconds<sup>(3)</sup> after the start signal. The diesel generator shall be started for this test by using one of the following signals:
    - a) Manual, or
    - b) Simulated loss-of-offsite power by itself, or
    - c) Simulated loss-of-offsite power in conjunction with a Safety Injection test signal, or
    - d) A Safety Injection test signal by itself.
  - 3) Verifying the generator is synchronized, loaded to 5000 to 5500 kW, and operates with a load of 5000 to 5500 kW for at least 60 minutes, <sup>(4)(6)</sup> and
  - 4) Verifying the standby 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 its associated fuel tank;
- c. Maintain properties of new and stored fuel oil in accordance with the Fuel Oil Monitoring Program.



ELECTRICAL POWER SYSTEMS

## SURVEILLANCE REQUIREMENTS (Continued)

- 
- d. Deleted.
- e. At least once per 18 months, during shutdown, by:
- 1) **Deleted** <sup>(4)</sup> ~~Subjecting the diesel to an inspection in accordance with procedures prepared in conjunction with its manufacturer's recommendations for this class of standby service;~~
  - 2) Verifying the generator capability to reject a load of greater than or equal to 785.3 kW while maintaining voltage at  $4160 \pm 416$  volts and frequency at  $60 \pm 4.5$  Hz; <sup>(4)(5)</sup>
  - 3) Verifying the generator capability to reject a load of 5500 kW without tripping. The generator voltage shall not exceed 5262 volts during and following the load rejection; <sup>(4)(5)</sup>
  - 4) Simulating a loss-of-offsite power by itself, and:
    - a) Verifying deenergization of the ESF busses and load shedding from the ESF busses, and
    - b) Verifying the diesel starts on the auto-start signal within 10 seconds, energizes the auto-connected 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 steady-state voltage and frequency of the ESF busses shall be maintained at  $4160 \pm 416$  volts and  $60 \pm 1.2$  Hz during this test.
  - 5) Verifying that on a Safety Injection 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 generator voltage and frequency shall be  $4160 \pm 416$  volts and  $60 \pm 1.2$  Hz within 10 seconds after the auto-start signal; the steady-state generator voltage and frequency shall be maintained within these limits during this test;
  - 6) Simulating a loss-of-offsite power in conjunction with a Safety Injection test signal, and:
    - a) Verifying deenergization of the ESF busses and load shedding from the ESF busses;
    - b) Verifying the diesel starts on the auto-start signal within 10 seconds, energizes the auto-connected ESF (accident) loads through the load sequencer and operates for greater than or equal to 5 minutes while its generator

NOC-AE-000700

Attachment 5

Page 5 of 4

Unit 1 - Amendment No. 68, 85

Unit 2 - Amendment No. 57, 72

SOUTH TEXAS - UNITS 1 & 2

3/4 8-4

**ATTACHMENT 6**  
**ANNOTATED BASES PAGES**

**Annotated Bases Pages**

The following Bases pages are annotated with changes. Additions are indicated with bold type, deletions are designated by line through and are indicated by change bars in the right hand column.

Page B 3/4 8-8

ELECTRICAL POWER SYSTEMS

BASES

---

A.C. SOURCES, D.C. SOURCES, and ONSITE POWER DISTRIBUTION (Continued)

SR 4.8.1.1.2.b

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 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, contaminated fuel oil, and 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. The Surveillance Frequencies are established by Regulatory Guide 1.137. This SR is for preventative maintenance. The presence of water does not necessarily represent failure of the SR, provided the accumulated water is removed during the performance of this Surveillance.

SR 4.8.1.1.2.c

The requirements will be controlled and administered by the Diesel Fuel Oil Testing Program located in section 6.8.3 of Administrative Controls.

SR 4.8.1.1.2.e.1

**Deleted**

~~This inspection is conducted once per cycle to ensure unexpected degradation is discovered.~~

SR 4.8.1.1.2.e.2

Each DG is provided with an engine overspeed trip to prevent damage to the engine. Recovery from the transient caused by the loss of a large load could cause diesel engine overspeed, which, if excessive, might result in a trip of the engine. This Surveillance demonstrates the DG load response characteristics and capability to reject the largest single load (785.3 kW) without exceeding predetermined voltage and frequency. The 18 month Frequency is consistent with the recommendation of Regulatory Guide 1.108.

This SR is modified by two Notes. Note 4 indicates that diesel engine runs for this Surveillance may include gradual loading, as recommended by the manufacturer, so that mechanical stress and wear on the diesel engine are minimized. Note 5 allows the diesel start for this surveillance to be a modified start as stated in SR 4.8.1.1.2.a.2.

**ATTACHMENT 7**

**TECHNICAL SPECIFICATION AND BASES**

**PAGES WITH PROPOSED CHANGES**

**INCORPORATED**

## **Technical Specification and Bases Pages With Proposed Changes Incorporated**

The following Technical Specification and Bases pages, which incorporate the proposed changes in Attachments 5 and 6, are provided for NRC use in review of this submittal.

Page 3/4 8-4 (Page 3 of 4)

Page B 3/4 8-8 (Page 4 of 4)

## ELECTRICAL POWER SYSTEMS

### SURVEILLANCE REQUIREMENTS (Continued)

---

- d. Deleted
- e. At least once per 18 months, during shutdown, by:
  - 1) Deleted
  - 2) Verifying the generator capability to reject a load of greater than or equal to 785.3 kW while maintaining voltage at  $4160 \pm 416$  volts and frequency at  $60 \pm 4.5$  Hz; <sup>(4)(5)</sup>
  - 3) Verifying the generator capability to reject a load of 5500 kW without tripping. The generator voltage shall not exceed 5262 volts during and following the load rejection; <sup>(4)(5)</sup>
  - 4) Simulating a loss-of-offsite power by itself, and:
    - a) Verifying deenergization of the ESF busses and load shedding from the ESF busses, and
    - b) Verifying the diesel starts on the auto-start signal within 10 seconds, energizes the auto-connected 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 steady-state voltage and frequency of the ESF busses shall be maintained at  $4160 \pm 416$  volts and  $60 \pm 1.2$  Hz during this test.
  - 5) Verifying that on a Safety Injection 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 generator voltage and frequency shall be  $4160 \pm 416$  volts and  $60 \pm 1.2$  Hz within 10 seconds after the auto-start signal; the steady-state generator voltage and frequency shall be maintained within these limits during this test;
  - 6) Simulating a loss-of-offsite power in conjunction with a Safety Injection test signal, and:
    - a) Verifying deenergization of the ESF busses and load shedding from the ESF busses;
    - b) Verifying the diesel starts on the auto-start signal within 10 seconds, energizes the auto-connected ESF (accident) loads through the load sequencer and operates for greater than or equal to 5 minutes while its generator



## ELECTRICAL POWER SYSTEMS

### BASES

---

#### A.C. SOURCES, D.C. SOURCES, and ONSITE POWER DISTRIBUTION (Continued)

##### SR 4.8.1.1.2.b

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 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, contaminated fuel oil, and 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. The Surveillance Frequencies are established by Regulatory Guide 1.137. This SR is for preventative maintenance. The presence of water does not necessarily represent failure of the SR, provided the accumulated water is removed during the performance of this Surveillance.

##### SR 4.8.1.1.2.c

The requirements will be controlled and administered by the Diesel Fuel Oil Testing Program located in section 6.8.3 of Administrative Controls.

##### SR 4.8.1.1.2.e.1

Deleted

##### SR 4.8.1.1.2.e.2

Each DG is provided with an engine overspeed trip to prevent damage to the engine. Recovery from the transient caused by the loss of a large load could cause diesel engine overspeed, which, if excessive, might result in a trip of the engine. This Surveillance demonstrates the DG load response characteristics and capability to reject the largest single load (785.3 kW) without exceeding predetermined voltage and frequency. The 18 month Frequency is consistent with the recommendation of Regulatory Guide 1.108.

This SR is modified by two Notes. Note 4 indicates that diesel engine runs for this Surveillance may include gradual loading, as recommended by the manufacturer, so that mechanical stress and wear on the diesel engine are minimized. Note 5 allows the diesel start for this surveillance to be a modified start as stated in SR 4.8.1.1.2.a.2.

## **ATTACHMENT 8**

# **REVISED TECHNICAL REQUIREMENTS MANUAL PAGES**

## **Revised Technical Requirements Manual Pages**

The following Technical Requirements Manual and Bases pages, which incorporate the proposed changes in Attachments 5 and 6, are provided for NRC use in review of this submittal. These changes were incorporated into the Technical Requirements Manual in Amendment 19.

Page 3/4 8-1 (Page 3 of 4)

Page B 3/4 8-1 (Page 4 of 4)

## ELECTRICAL POWER SYSTEMS

---

---

### 3/4.8.1 A.C. SOURCES

#### OPERATING

#### LIMITING CONDITION FOR OPERATION

---

---

Refer to Technical Specifications

#### SURVEILLANCE REQUIREMENTS

---

---

4.8.1.1.1 Each standby diesel generator shall be demonstrated OPERABLE:

- a. At least once per 10 years by:
  - 1) Cleaning each fuel tank using a sodium hypochlorite solution, or equivalent, and
  - 2) Performing a pressure test per ASME Boiler and Pressure Vessel Code Section XI Subsection IWD Table 2500-1 of these portions of the Diesel Fuel Oil System designed to Section III, Subsection ND of the ASME Code.

#### NOTE

TRM SURVEILLANCE REQUIREMENT 4.8.1.1.2.e.1, DUPLICATES SURVEILLANCE REQUIREMENT 4.8.1.1.2.e.1 OF TECHNICAL SPECIFICATION 3/4.8.1. THE REQUIREMENTS AND ACTIONS OF THE TECHNICAL SPECIFICATION GOVERN UNTIL THE NRC APPROVES THE RELOCATION AS REQUESTED IN NOC-AE-000630, DATED SEPTEMBER 8, 1999.

4.8.1.1.2 Each standby diesel generator shall be demonstrated OPERABLE:

- a.- d. Not Used
- e. At least once per 18 months, during shutdown, by:
  - 1) Subjecting the diesel to an inspection in accordance with procedures prepared in conjunction with its manufacturer's recommendations for this class of standby service. \*

\* This test may be performed during power operation provided that the other two diesel generators are operable.

## ELECTRICAL POWER SYSTEMS

### BASES

---

#### 3/4.8.1 **A. C. SOURCES - OPERATING**

##### Surveillance Requirement 4.8.1.1.1.a

Refer to Technical Specification Bases (SR 4.8.1.1.2.g)

#### NOTE

THE BASES FOR TRM SURVEILLANCE REQUIREMENT 4.8.1.1.2.e.1, DUPLICATES THE BASES FOR SURVEILLANCE REQUIREMENT 4.8.1.1.2.e.1 OF TECHNICAL SPECIFICATION 3/4.8.1. THE REQUIREMENTS, ACTIONS AND RESPECTIVE BASES OF THE TECHNICAL SPECIFICATION GOVERN UNTIL THE NRC APPROVES THE RELOCATION AS REQUESTED IN NOC-AE-000630 DATED SEPTEMBER 8, 1999.

##### Surveillance Requirement 4.8.1.1.2.e.1

This inspection is conducted once per cycle to ensure unexpected degradation is discovered.

#### 3/4.8.4 **ELECTRICAL EQUIPMENT PROTECTIVE DEVICES**

Containment electrical penetrations and penetration conductors are protected by either deenergizing circuits not required during reactor operation or by demonstrating the OPERABILITY of primary and backup overcurrent protection circuit breakers during periodic surveillance.

The Surveillance Requirements applicable to lower voltage circuits breakers provide assurance of breaker reliability by testing a representative sample of at least 10% of each manufacturer's brand of circuit breaker. Each manufacturer's molded case and metal case circuit breakers are grouped into representative samples which are then tested on a rotating basis to ensure that all breakers are tested. If a wide variety exists within any manufacturer's brand of circuit breakers it is necessary to divide that manufacturer's breakers into groups and treat each group as a separate type of breaker for surveillance purposes.

The molded case circuit breakers will be tested in accordance with NEMA Standard Publication No. AB-2-1980. For a frame size of 250 amperes or less, the field tolerance of the high and low setting of the injected current will be within + 40%, -25% of the setpoint (pickup) value. For a frame size of 400 amperes or greater, the field tolerance will be  $\pm 25\%$  of the setpoint (pickup) value. The circuit breakers should not be affected when tested within their tolerance.