



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

May 24, 2001  
NOC-AE-01001092  
File No.: G20.02.01  
G21.02.01  
10CFR50.90

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  
Proposed Amendment to Technical Specifications  
to Relocate Technical Specification 3/4.9.6  
to the Technical Requirements Manual

Pursuant to 10 CFR 50.90, STP Nuclear Operating Company (STPNOC) requests the following amendment of Operating Licenses NPF-76 and NPF-80 for South Texas Project Units 1 and 2. The proposed change will relocate Technical Specification (TS) 3/4.9.6, "Refueling Machine" and its associated Bases description to the Technical Requirements Manual. This proposed amendment is consistent with NUREG-1431, "Standard (Improved) Technical Specifications - Westinghouse Plants".

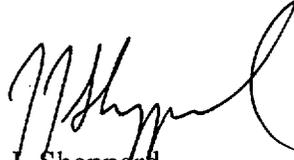
STPNOC has reviewed the proposed amendment pursuant to 10CFR50.92 and determined that it does not involve a significant hazards consideration. In addition, South Texas Project has determined that the proposed amendment satisfies the criteria of 10CFR51.22(c)(9) for categorical exclusion from the requirement for an environmental assessment. The STP Plant Operations Review Committee and Nuclear Safety Review Board have reviewed and approved the proposed amendment.

In accordance with 10CFR50.91(b), STPNOC is notifying the State of Texas of this request for a license amendment by providing a copy of this letter and its attachments.

The proposed change involves a Specification used during refueling outages. STP requests to implement the proposed change for the next refueling outage (Unit 1 refueling outage 1RE10), which is currently scheduled for October 2001. Therefore, STP requests approval of the proposed change by September 2001, so that the changes may be implemented prior to the beginning of the outage.

The affidavit, Safety Evaluation, and the proposed revised pages of the Technical Specifications and Technical Requirements Manual are included as attachments to this letter. The Technical Requirements Manual pages are provided for information.

If there are any questions regarding the proposed amendment, please contact R. D. Piggott at (361) 972-7438 or me at (361) 972-8757.



J. J. Sheppard  
Vice President,  
Engineering & Technical Services

RDP/

Attachments:

1. Affidavit
2. Safety Analysis
3. Annotated Changes to STP Technical Specifications
4. STP Technical Specification Pages with Proposed Changes Incorporated
5. New Technical Requirements Manual Pages with Proposed Changes Incorporated

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**ATTACHMENT 1**

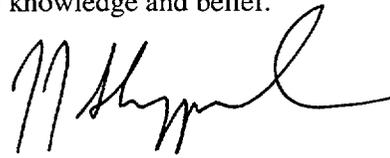
**AFFIDAVIT**

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

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

AFFIDAVIT

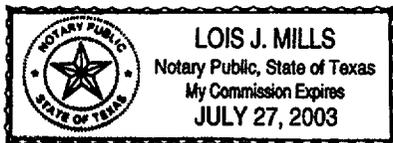
I, J. J. Sheppard, being duly sworn, hereby depose and say that I am Vice President, Engineering & Technical Services of STP Nuclear Operating Company; that I am duly authorized to sign and file with the Nuclear Regulatory Commission the attached proposed amendments to South Texas Project Operating Licenses NPF-76 and NPF-80; 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 24<sup>th</sup> day of May, 2001.



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

**ATTACHMENT 2**

**SAFETY ANALYSIS**

## **SAFETY ANALYSIS**

### **1.0 INTRODUCTION**

- 1.1 This letter is a request to amend Operating Licenses NPF-76 and NPF-80 for South Texas Project Units 1 and 2. The proposed change will relocate Technical Specification 3/4.9.6, "Refueling Machine" and its associated Bases from the Technical Specifications to the Technical Requirements Manual (TRM).

The proposed changes are consistent with NUREG-1431, "Standard (Improved) Technical Specifications - Westinghouse Plants." Any changes to these requirements in the TRM will require a 10CFR50.59 evaluation.

### **1.3 ANNOTATED CHANGES TO THE EXISTING TECHNICAL SPECIFICATIONS**

Unit 1 & Unit 2                      See Attachment 3

### **1.4 PROPOSED CHANGES INCORPORATED INTO THE TECHNICAL SPECIFICATIONS**

Unit 1 & Unit 2                      See Attachment 4

### **1.4 NEW TECHNICAL REQUIREMENTS MANUAL PAGES**

Unit 1 & Unit 2                      See Attachment 5

### **1.5 UPDATED FINAL SAFETY ANALYSIS REPORT (UFSAR) SECTION**

The evaluations performed in support of this License Amendment Request will result in an administrative change to the UFSAR section 9.1.4.3.1.1 to reference the surveillance requirements of the Technical Requirements Manual instead of Technical Specifications.

Design of the refueling machine equipment will continue to meet the requirements of Regulatory Guide 1.13, Spent Fuel Storage Facility Design Basis and 10CFR50, Appendix A, General Design Criteria (GDC) 2, 5, 61, and 62 per UFSAR 9.1.4.3.

## **2.0 DESCRIPTION OF PROPOSED AMENDMENT**

The proposed changes will relocate Technical Specification 3/4.9.6, "Refueling Machine", and its associated Bases from the South Texas Project Technical Specifications to the Technical Requirements Manual (TRM).

### **3.0 BACKGROUND**

The STP Refueling Machine Technical Specification and Surveillance Requirements ensure that the refueling machine and auxiliary hoist used to handle fuel within the reactor vessel function as designed and that the equipment has sufficient load capacity for handling fuel assemblies, thimble plugs or control rods. The specification also assures protection of the core internals and reactor vessel from excessive lifting force in the event that they are inadvertently engaged during lifting operations.

The proposed change will facilitate future changes to the refueling machine requirements. Any changes to this requirement specified in the TRM will require a 10CFR50.59 evaluation.

### **4.0 TECHNICAL ANALYSIS**

Although the refueling machine design includes interlocks that can prevent damage to the refueling equipment and fuel assemblies, they are not assumed to function to mitigate the consequences of a design basis accident. No actual plant equipment or accident analyses will be affected by the proposed change and no failure modes not bounded by previously evaluated accidents will be created.

The proposed change relocates the requirements of Technical Specification 3/4.9.6, "Refueling Machine," which do not meet the criteria for inclusion in Technical Specifications as identified in 10CFR50.36(c)(2)(ii) or 10CFR50.36(c)(3). Any changes to this requirement will require a 10CFR50.59 evaluation.

The refueling machine was found to be a non-significant risk contributor to core damage frequency and offsite releases as summarized in, WCAP-11618 - Westinghouse Owners Group MERITS Program – Phase II Task 5 (Reference 1).

This change is consistent with NUREG-1431, "Standard (Improved) Technical Specifications - Westinghouse Plants".

### **5.0 REGULATORY ANALYSIS**

This is an administrative change only, therefore, the refueling machine equipment will continue to meet the existing regulatory requirements for safe handling of fuel. Specifically, the refueling equipment is designed in accordance with Regulatory Guide 1.13 and meets the requirements of 10CFR50, Appendix A, GDC 2, 5, 61, and 62.

The proposed change relocates the requirements of Technical Specification 3/4.9.6, which do not meet the criteria for inclusion in Technical Specifications as identified in 10CFR50.36(c)(2)(ii) or 10CFR50.36(c)(3).

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

## 6.0 NO SIGNIFICANT HAZARDS DETERMINATION

Pursuant to 10 CFR 50.92, it has been determined that this proposed amendment involves no significant hazards consideration. This determination was made by applying the Nuclear Regulatory Commission established standards contained in 10CFR50.92. These standards assure that operation of South Texas Project in accordance with this request consider the following:

- 1) Will the change involve a significant increase in the probability or consequences of an accident previously evaluated?

Response: No

This request involves an administrative change only. No actual plant equipment or accident analyses will be affected by the proposed changes. Operability of the refueling machine ensures that the equipment used to handle fuel within the reactor vessel has sufficient load capacity for handling fuel assemblies and/or control rods. Although the refueling machine is designed and has interlocks that can prevent damage to the fuel assemblies, the equipment is not assumed to function or actuate to mitigate the consequences of a design basis accident or transient in the safety analysis. Therefore, the proposed amendment does not result in any increase in the probability or consequences of an accident previously evaluated.

- 2) Will the change create the possibility of a new or different kind of accident from any accident previously evaluated?

Response: No

This request involves an administrative change only. The proposed change does not alter the performance of the refueling machine and auxiliary hoist or the manner in which the equipment will be operated. The refueling equipment will still be tested before placing the equipment into operational service. Changing the location of these requirements and surveillances from Technical Specifications to the Technical Requirements Manual will not create any new accident initiators or scenarios. Since the proposed changes only allow activities that are presently approved and conducted, no possibility exists for a new or different kind of accident from those previously evaluated.

3) Will the change involve a significant reduction in a margin of safety?

Response: No

This request involves administrative changes only. No actual plant equipment or accident analyses will be affected by the proposed change. Additionally, the proposed changes will not relax any criteria used to establish safety limits, will not relax any safety systems settings, or will not relax the bases for any limiting conditions of operation. Therefore, the proposed changes will not impact the margin of safety.

Conclusion

Based on the above analysis, STPNOC concludes that the proposed amendment to relocate these requirements from Technical Specifications to the TRM involve no significant hazards consideration under the standards set forth in 10CFR50.92(c) and, accordingly, a finding of “no significant hazards consideration” is justified.

**7.0 ENVIRONMENTAL EVALUATION**

Pursuant to 10CFR51.22, an evaluation of this request has been performed to determine whether it meets the criteria for categorical exclusion set forth in 10CFR51.22(c)(9) and (10) of the regulations.

This request will have no adverse radiation impact upon the environment. It has been determined that the proposed changes involve:

1. No significant hazards consideration,
2. No significant change in the types, or significant increase in the amounts, of any effluents that may be released offsite, and
3. No significant increase in individual or cumulative occupational radiation exposures.

Therefore, this request for revision of the Technical Specifications meets the criteria of 10CFR51.22 for categorical exclusion from the requirement for an environmental assessment.

## **8.0 PRECEDENTS**

As noted above, the relocation of this Technical Specification to the Technical Requirements Manual is consistent with NUREG 1431, which has been implemented by a number of Westinghouse Plants.

## **9.0 REFERENCES**

1. WCAP-11618 - Westinghouse Owners Group "Methodically Engineered Restructured and Improved Technical Specifications, MERITS Program – Phase II Task 5, Criteria Application," dated November 1987.

## **ATTACHMENT 3**

### **ANNOTATED CHANGES TO STP TECHNICAL SPECIFICATIONS**

(Bases pages provided for information)

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REFUELING OPERATIONS

3/4.9.6 REFUELING MACHINE(This specification number is not used.)

LIMITING CONDITION FOR OPERATION

3.9.6 The refueling machine and auxiliary hoist shall be used for movement of thimble plugs, drive rods or fuel assemblies and shall be OPERABLE with:

a. The refueling machine used for movement of fuel assemblies having:

1) A minimum capacity of 3300 pounds, and

2) An automatic overload cutoff less than or equal to 3250 pounds.

b. The auxiliary hoist used for latching and unlatching drive rods and for thimble plug handling operations having:

1) A minimum capacity of 760 pounds, and

2) A 1,000 pound load indicator which shall be used to monitor lifting loads for these operations.

APPLICABILITY: During movement of thimble plugs, drive rods or fuel assemblies within the reactor vessel.

ACTION:

With the requirements for the refueling machine and/or hoist OPERABILITY not satisfied, suspend use of any inoperable refueling machine and/or auxiliary hoist from operations involving the movement of thimble plugs, drive rods and fuel assemblies within the reactor vessel.

SURVEILLANCE REQUIREMENTS

4.9.6.1 Each refueling machine used for movement of fuel assemblies within the reactor vessel shall be demonstrated OPERABLE within 100 hours prior to the start of such operations by performing a load test of at least 3300 pounds and demonstrating an automatic load cutoff when the refueling machine load exceeds the setpoints of Specification 3.9.6a.2).

4.9.6.2 Each auxiliary hoist and associated load indicator used for movement of drive rods within the reactor vessel shall be demonstrated OPERABLE within 100 hours prior to the start of such operations by performing a load test of at least 760 pounds.

## REFUELING OPERATIONS

### BASES

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#### 3/4.9.4 CONTAINMENT BUILDING PENETRATION (Continued)

Operability of a containment personnel airlock door requires that the door is capable of being closed, i.e., that the door is unblocked and no cables or hoses run through the personnel airlock. Containment personnel airlock door closure is required to take place within 30 minutes of initiation of a fuel handling accident inside containment if the reactor has been subcritical for less than 165 hours. Fuel movement is not permitted with personnel airlock doors open, if the reactor has not been subcritical for  $\geq 95$  hours. If the reactor has been subcritical for 165 hours or more, containment personnel airlock door closure is to occur as soon as practicable, but is assumed to occur within 2 hours to be consistent with the accident analysis. These requirements assure that the associated doses are limited to within acceptable levels. The requirement to have 23 feet of water above the reactor vessel flange is consistent with the fuel handling accident analysis assumptions, Regulatory Guide 1.25, and Technical Specification 3.9.10, Water Level - Refueling Cavity.

#### 3/4.9.5 COMMUNICATIONS

The requirement for communications capability ensures that refueling station personnel can be promptly informed of significant changes in the facility status or core reactivity conditions during CORE ALTERATIONS.

#### 3/4.9.6 REFUELING MACHINE (NOT USED)

~~The OPERABILITY requirements for the refueling machine and auxiliary hoist ensure that: (1) the refueling machine and auxiliary hoist will be used for movement of drive rods and fuel assemblies, (2) the refueling machine has sufficient load capacity to lift a drive rod or fuel assembly, and (3) the core internals and reactor vessel are protected from excessive lifting force in the event they are inadvertently engaged during lifting operations.~~

#### 3/4.9.7 CRANE TRAVEL - FUEL HANDLING BUILDING

The restriction on movement of loads in excess of the nominal weight of a fuel and control rod assembly and associated handling tool over other fuel assemblies in the storage pool, unless handled by the single-failure-proof main hoist of the FHB 15-ton crane, ensures that in the event this load is dropped: (1) the activity release will be limited to that contained in a single fuel assembly, and (2) any possible distortion of fuel in the storage racks will not result in a critical array. This assumption is consistent with the activity release assumed in the safety analyses.

**ATTACHMENT 4**

**STP TECHNICAL SPECIFICATION PAGES WITH PROPOSED  
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(Bases pages provided for information)

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REFUELING OPERATIONS

3/4.9.6 (This specification number is not used)

SOUTH TEXAS - UNITS 1 & 2

3/4 9-6

Unit 1 - Amendment No.

Unit 2 - Amendment No.

## REFUELING OPERATIONS

### BASES

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#### 3/4.9.4 CONTAINMENT BUILDING PENETRATION (Continued)

Operability of a containment personnel airlock door requires that the door is capable of being closed, i.e., that the door is unblocked and no cables or hoses run through the personnel airlock. Containment personnel airlock door closure is required to take place within 30 minutes of initiation of a fuel handling accident inside containment if the reactor has been subcritical for less than 165 hours. Fuel movement is not permitted with personnel airlock doors open, if the reactor has not been subcritical for  $\geq 95$  hours. If the reactor has been subcritical for 165 hours or more, containment personnel airlock door closure is to occur as soon as practicable, but is assumed to occur within 2 hours to be consistent with the accident analysis. These requirements assure that the associated doses are limited to within acceptable levels. The requirement to have 23 feet of water above the reactor vessel flange is consistent with the fuel handling accident analysis assumptions, Regulatory Guide 1.25, and Technical Specification 3.9.10, Water Level - Refueling Cavity.

#### 3/4.9.5 COMMUNICATIONS

The requirement for communications capability ensures that refueling station personnel can be promptly informed of significant changes in the facility status or core reactivity conditions during CORE ALTERATIONS.

#### 3/4.9.6 (NOT USED)

#### 3/4.9.7 CRANE TRAVEL - FUEL HANDLING BUILDING

The restriction on movement of loads in excess of the nominal weight of a fuel and control rod assembly and associated handling tool over other fuel assemblies in the storage pool, unless handled by the single-failure-proof main hoist of the FHB 15-ton crane, ensures that in the event this load is dropped: (1) the activity release will be limited to that contained in a single fuel assembly, and (2) any possible distortion of fuel in the storage racks will not result in a critical array. This assumption is consistent with the activity release assumed in the safety analyses.

**ATTACHMENT 5**

**NEW TECHNICAL REQUIREMENTS MANUAL PAGES WITH  
PROPOSED CHANGES INCORPORATED**

(Technical Requirements Manual pages provide for information)

## REFUELING OPERATIONS

### 3/4.9.6 REFUELING MACHINE

#### LIMITING CONDITION FOR OPERATION

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3.9.6 The refueling machine and auxiliary hoist shall be used for movement of thimble plugs, drive rods or fuel assemblies and shall be OPERABLE with:

- a. The refueling machine used for movement of fuel assemblies having:
  - 1) A minimum capacity of 3300 pounds, and
  - 2) An automatic overload cutoff less than or equal to 3250 pounds.
- b. The auxiliary hoist used for latching and unlatching drive rods and for thimble plug handling operations having:
  - 1) A minimum capacity of 760 pounds, and
  - 2) A 1,000-pound load indicator which shall be used to monitor lifting loads for these operations.

APPLICABILITY: During movement of thimble plugs, drive rods or fuel assemblies within the reactor vessel.

#### ACTION:

With the requirements for the refueling machine and/or hoist OPERABILITY not satisfied, suspend use of any inoperable refueling machine and/or auxiliary hoist from operations involving the movement of thimble plugs, drive rods and fuel assemblies within the reactor vessel.

#### SURVEILLANCE REQUIREMENTS

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4.9.6.1 Each refueling machine used for movement of fuel assemblies within the reactor vessel shall be demonstrated OPERABLE within 100 hours prior to the start of such operations by performing a load test of at least 3300 pounds and demonstrating an automatic load cutoff when the refueling machine load exceeds the setpoints of Specification 3.9.6a.2).

4.9.6.2 Each auxiliary hoist and associated load indicator used for movement of drive rods within the reactor vessel shall be demonstrated OPERABLE within 100 hours prior to the start of such operations by performing a load test of at least 760 pounds.

## REFUELING OPERATIONS

### BASES

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#### **3/4.9.6 REFUELING MACHINE**

The OPERABILITY requirements for the refueling machine and auxiliary hoist ensure that: (1) the refueling machine and auxiliary hoist will be used for movement of drive rods and fuel assemblies, (2) the refueling machine has sufficient load capacity to lift a drive rod or fuel assembly, and (3) the core internals and reactor vessel are protected from excessive lifting force in the event that they are inadvertently engaged during lifting operations.