



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

October 16, 2008

Mr. Edward D. Halpin  
Chief Nuclear Officer  
STP Nuclear Operating Company  
South Texas Project  
P.O. Box 289  
Wadsworth, TX 77483

SUBJECT: SOUTH TEXAS PROJECT, UNITS 1 AND 2 - ISSUANCE OF AMENDMENTS  
RE: EXTENDED RANGE NEUTRON FLUX INSTRUMENTATION AND  
TECHNICAL SPECIFICATION 3.4.1.4.2 (TAC NOS. MD8003 AND MD8004)

Dear Mr. Halpin:

The Commission has issued the enclosed Amendment No. 187 to Facility Operating License No. NPF-76 and Amendment No. 174 to Facility Operating License No. NPF-80 for the South Texas Project (STP), Units 1 and 2, respectively. The amendments consist of changes to the Technical Specifications (TSs) in response to your application dated January 28, 2008 (NOC-AE-07002234), as supplemented by letters dated July 28 and September 25, 2008 (NOC-AE-08002319 and NOC-AE-08002351, respectively).

The amendments revise (1) Action 5 in TS 3.3.1, "Reactor Trip Instrumentation," for one inoperable channel of extended range neutron flux instrumentation and (2) Action c in TS 3.4.1.4.2, "Reactor Coolant System, Cold Shutdown - Loops Not Filled." This letter does not complete the Nuclear Regulatory Commission staff's review of the application. The remaining proposed TS change to Action 5 will be addressed in a future letter.

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

Sincerely,

A handwritten signature in black ink that reads "Jack Donohew".

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

Docket Nos. 50-498 and 50-499

Enclosures:

1. Amendment No. 187 to NPF-76
2. Amendment No. 174 to NPF-80
3. Safety Evaluation

cc w/encls: See next page

South Texas Project, Units 1 and 2

9/19/2008

cc:

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

STP NUCLEAR OPERATING COMPANY

DOCKET NO. 50-498

SOUTH TEXAS PROJECT, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 187  
License No. NPF-76

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by STP Nuclear Operating Company (STPNOC)\* acting on behalf of itself and for NRG South Texas LP, the City Public Service Board of San Antonio (CPS), and the City of Austin, Texas (COA) (the licensees), dated January 28, 2008, as supplemented by letters dated July 28 and September 25, 2008, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this license amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

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\*STPNOC is authorized to act for NRG South Texas LP, the City Public Service Board of San Antonio, and the City of Austin, Texas, and has exclusive responsibility and control over the physical construction, operation, and maintenance of the facility.

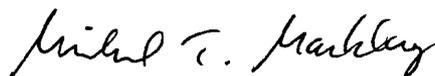
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and Paragraph 2.C.(2) of Facility Operating License No. NPF-76 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 187, and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the license. STPNOC shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. The license amendment is effective as of its date of issuance and shall be implemented within 90 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Michael T. Markley, Chief  
Plant Licensing Branch IV  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Facility Operating  
License No. NPF-76 and the  
Technical Specifications

Date of Issuance: October 16, 2008



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

STP NUCLEAR OPERATING COMPANY

DOCKET NO. 50-499

SOUTH TEXAS PROJECT, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 174  
License No. NPF-80

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by STP Nuclear Operating Company (STPNOC)\* acting on behalf of itself and for NRG South Texas LP, the City Public Service Board of San Antonio (CPS), and the City of Austin, Texas (COA) (the licensees), dated January 28, 2008, as supplemented by letters dated July 28 and September 25, 2008, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this license amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

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\*STPNOC is authorized to act for NRG South Texas LP, the City Public Service Board of San Antonio, and the City of Austin, Texas, and has exclusive responsibility and control over the physical construction, operation, and maintenance of the facility.

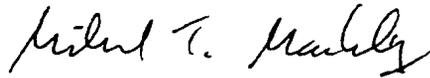
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and Paragraph 2.C.(2) of Facility Operating License No. NPF-80 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 174, and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the license. STPNOC shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

3. The license amendment is effective as of its date of issuance and shall be implemented within 90 days from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Michael T. Markley, Chief  
Plant Licensing Branch IV  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Facility Operating  
License No. NPF-80 and the  
Technical Specifications

Date of Issuance: October 16, 2008

ATTACHMENT TO LICENSE AMENDMENT NOS. 187 AND 174

FACILITY OPERATING LICENSE NOS. NPF-76 AND NPF-80

DOCKET NOS. 50-498 AND 50-499

Replace the following pages of the Facility Operating Licenses, Nos. NPF-76 and NPF-80, and Appendix A Technical Specifications with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Unit 1 Facility Operating License

<u>REMOVE</u>	<u>INSERT</u>
4	4

Unit 2 Facility Operating License

<u>REMOVE</u>	<u>INSERT</u>
4	4

Technical Specifications

<u>REMOVE</u>	<u>INSERT</u>
3/4 3-7	3/4 3-7
3/4 4-6	3/4 4-6

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 187, and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the license. STPNOC shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

## (3) Not Used

(4) Initial Startup Test Program (Section 14, SER)\*

Any changes to the Initial Test Program described in Section 14 of the Final Safety Analysis Report made in accordance with the provisions of 10 CFR 50.59 shall be reported in accordance with 50.59(b) within one month of such change.

(5) Safety Parameter Display System (Section 18, SSER No. 4)\*

Before startup after the first refueling outage, HL&P\*\* shall perform the necessary activities, provide acceptable responses, and implement all proposed corrective actions related to issues as described in Section 18.2 of SER Supplement 4.

(6) Supplementary Containment Purge Isolation (Section 11.5, SSER No. 4)

HL&P shall provide, prior to startup from the first refueling outage, control room indication of the normal and supplemental containment purge sample line isolation valve position.

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\* The parenthetical notation following the title of many license conditions denotes the section of the Safety Evaluation Report and/or its supplements wherein the license condition is discussed.

\*\* The original licensee authorized to possess, use and operate the facility was HL&P. Consequently, historical references to certain obligations of HL&P remain in the license conditions.

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 174 and the Environmental Protection Plan contained in Appendix B, are hereby incorporated in the license. STPNOC shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

(3) Not Used

(4) Initial Startup Test Program (Section 14, SR)\*

Any changes to the Initial Test Program described in Section 14 of the Final Safety Analysis Report made in accordance with the provisions of 10 CFR 50.59 shall be reported in accordance with 50.59(b) within one month of such change.

(5) License Transfer

Texas Genco, LP shall provide decommissioning funding assurance, to be held in decommissioning trusts for South Texas Project, Unit 2 (Unit 2) upon the direct transfer of the Unit 2 license to Texas Genco, LP, in an amount equal to or greater than the balance in the Unit 2 decommissioning trust immediately prior to the transfer. In addition, Texas Genco, LP shall ensure that all contractual arrangements referred to in the application for approval of the transfer of the Unit 2 license to Texas Genco, LP to obtain necessary decommissioning funds for Unit 2 through a non-bypassable charge are executed and will be maintained until the decommissioning trusts are fully funded, or shall ensure that other mechanisms that provide equivalent assurance of decommissioning funding in accordance with the Commission's regulations are maintained.

(6) License Transfer

The master decommissioning trust agreement for Unit 2, at the time the direct transfer of Unit 2 to Texas Genco, LP is effected and thereafter, is subject to the following:

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\* The parenthetical notation following the title of many license conditions denotes the section of the Safety Evaluation Report and/or its supplements wherein the license condition is discussed.

TABLE 3.3-1 (Continued)

ACTION STATEMENTS (Continued)

- ACTION 3 - With the number of channels OPERABLE one less than the Minimum Channels OPERABLE requirement and with the THERMAL POWER level:
- a. Below the P-6 (Intermediate Range Neutron Flux Interlock) Setpoint, restore the inoperable channel to OPERABLE status prior to increasing THERMAL POWER above the P-6 Setpoint, and
  - b. Above the P-6 (Intermediate Range Neutron Flux Interlock) Setpoint but below 10% of RATED THERMAL POWER, restore the inoperable channel to OPERABLE status prior to increasing THERMAL POWER above 10% of RATED THERMAL POWER.
- ACTION 4 - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, suspend all operations involving positive reactivity changes. Limited plant cooldown or boron dilution is allowed provided the change is accounted for in the calculated SHUTDOWN MARGIN.
- ACTION 5 - With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 72 hours, or immediately suspend all operations involving positive reactivity changes.
- Note: Plant temperature changes or boron dilution is allowed provided the change is accounted for in the calculated SHUTDOWN MARGIN.
- ACTION 6 - With the number of OPERABLE channels one less than the Total Number of Channels, STARTUP and/or POWER OPERATION may proceed provided the following conditions are satisfied:
- a. For Functional Units with installed bypass test capability, the inoperable channel may be placed in bypass, and must be placed in the tripped condition within 72 hours.  
Note: A channel may be bypassed for up to 12 hours for surveillance testing per Specification 4.3.1.1, provided no more than one channel is in bypass at any time.
  - b. For Functional Units with no installed bypass test capability,
    1. The inoperable channel is placed in the tripped condition within 72 hours, and
    2. The Minimum Channels OPERABLE requirement is met; however, the inoperable channel may be bypassed for up to 12 hours for surveillance testing of other channels per Specification 4.3.1.1.

## REACTOR COOLANT SYSTEM

### COLD SHUTDOWN - LOOPS NOT FILLED

#### LIMITING CONDITION FOR OPERATION

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##### 3.4.1.4.2

- a. At least two residual heat removal (RHR) loops shall be OPERABLE\* and at least one RHR loop shall be in operation\*\*, and
- b. Each valve or mechanical joint used to isolate unborated water sources shall be secured in the closed position.

APPLICABILITY: MODE 5 with reactor coolant loops not filled.

#### ACTION:

- a. With less than the above required RHR loops OPERABLE, immediately initiate corrective action to return the required RHR loops to OPERABLE status as soon as possible.
- b. With no RHR loop in operation, suspend all operations that would cause introduction into the RCS of coolant with boron concentration less than required to meet SHUTDOWN MARGIN of LCO 3.1.1 and immediately initiate corrective action to return the required RHR loop to operation.
- c. With a valve or mechanical joint used to isolate unborated water sources not secured in the closed position, immediately suspend all operations that would cause introduction into the RCS of coolant with boron concentration less than required to meet the SHUTDOWN MARGIN specified in the Core Operating Limits Report (COLR) and initiate action to secure the valve(s) or joint(s) in the closed position and within 4 hours verify the SHUTDOWN MARGIN is within limits specified in the COLR. The required action to verify the SHUTDOWN MARGIN is within limits must be completed whenever ACTION c is entered. A separate ACTION entry is allowed for each unsecured valve or mechanical joint.

#### SURVEILLANCE REQUIREMENTS

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- 4.4.1.4.2.1 At least one RHR loop shall be determined to be in operation and circulating reactor coolant at least once per 12 hours.
- 4.4.1.4.2.2 Each valve or mechanical joint used to isolate unborated water sources shall be verified closed and secured in position at least once per 31 days.

\*Two RHR loops may be inoperable for up to 2 hours for surveillance testing provided the other RHR loop is OPERABLE and in operation.

\*\*The RHR pump may be deenergized for up to 1 hour provided: (1) no operations are permitted that would cause introduction into the RCS of coolant with boron concentration less than that required to meet SHUTDOWN MARGIN of LCO 3.1.1, and (2) core outlet temperature is maintained at least 10°F below saturation temperature.



UNITED STATES  
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WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NOS. 187 AND 174 TO

FACILITY OPERATING LICENSE NOS. NPF-76 AND NPF-80

STP NUCLEAR OPERATING COMPANY, ET AL.

SOUTH TEXAS PROJECT, UNITS 1 AND 2

DOCKET NOS. 50-498 AND 50-499

1.0 INTRODUCTION

By application dated January 28, 2008 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML080350037), as supplemented by letters dated July 28 and September 25, 2008 (ADAMS Accession Nos. ML082180230 and ML082770068, respectively), STP Nuclear Operating Company (the licensee), requested changes to the Technical Specifications (TSs) for South Texas Project (STP), Units 1 and 2.

The proposed changes would revise (1) Action 5 in Table 3.3-1, "Reactor Trip System Instrumentation," of TS 3.3.1, "Reactor Trip Instrumentation," for two inoperable channels of extended range neutron flux instrumentation and (2) Action c in TS 3.4.1.4.2, "Reactor Coolant System, Cold Shutdown - Loops Not Filled," to replace "boron concentration" by "SHUTDOWN MARGIN" and add the article "the" to "SHUTDOWN MARGIN" in the action statement.

Although the licensee proposed an Action 5.a to replace the current Action 5 for the number of operable channels one less than the minimum channels operable requirement and a new Action 5.b for the number of operable channels two less than the minimum channels operable requirement, the licensee has not provided sufficient justification for the new Action 5.b. However, in its letter dated September 30, 2008 (ADAMS Accession No. ML082800178), the licensee requested that the approval for the proposed Action 5.b be deferred until additional information is provided to the Nuclear Regulatory Commission (NRC). Therefore, the NRC staff will address proposed Action 5.a in this safety evaluation.

The supplemental letters dated July 28 and September 25, 2008, provided additional information that clarified the application, did not expand the scope of the application as originally noticed, and did not change the staff's original proposed no significant hazards consideration determination as published in the *Federal Register* on March 25, 2008 (73 FR 15788).

In Attachment 2 to the enclosure to the application dated January 28, 2008, the licensee presented the inserts to be added to the TS Bases for the proposed revisions to Action 5 of TS Table 3.3-1. Changes to the TS Bases are controlled by TS 6.8.3.m, "Technical Specifications (TS) Bases Control Program." Revisions to the TS Bases for STP, Units 1 and 2 are made by the licensee in accordance with TS 6.8.3.m and are not approved by the NRC staff.

Enclosure 3

## 2.0 REGULATORY EVALUATION

In Section 50.36 of Title 10 of the *Code of Federal Regulations* (10 CFR 50.36), the Commission established its regulatory requirements related to the content of the TSs. Pursuant to 10 CFR 50.36, TSs are required to include items in the following five specific categories related to station operation: (1) safety limits, limiting safety system settings, and limiting control settings; (2) limiting conditions for operation (LCOs); (3) surveillance requirements (SRs); (4) design features; and (5) administrative controls.

As stated in 10 CFR 50.36(d)(2)(i), LCOs "are the lowest functional capability or performance levels of equipment required for safe operation of the facility. When a limiting condition for operation of a nuclear reactor is not met, the licensee shall shut down the reactor or follow any remedial action permitted by the technical specifications ..." The remedial actions in the TSs are specified in terms of LCO conditions, required actions, and completion times (CTs), or allowed outage times (AOTs), to complete the required actions. When an LCO is not being met, the CTs specified in the TSs are the time allowed in the TSs for completing the specified required actions. The conditions and required actions specified in the TSs must be acceptable remedial actions for the LCO not being met, and the CTs must be a reasonable time for completing the required actions while maintaining the safe operation of the plant. The rule does not specify the specific requirements to be included in a plant's TSs.

Since the extended range neutron flux instrumentation and the residual heat removal (RHR) loops in TS Table 3.3-1 and TS 3.4.1.4.2 are not being changed by the proposed amendment and only the remedial actions for inoperable systems or components are being changed, none of the General Design Criteria for nuclear power plants in Appendix A to 10 CFR Part 50 apply to the proposed amendment.

## 3.0 TECHNICAL EVALUATION

### 3.1 Proposed Change to TS Table 3.3-1

The Action 5 in TS Table 3.3-1 is the action specified if the extended range neutron flux instrumentation, function no. 7 in the table, does not meet the minimum channels operable requirement for that function in the table. The Action 5 applies only to the extended range neutron flux instrumentation.

The current Action 5 is only applicable for the number of operable channels one less than the minimum channels operable requirement of two. Since this instrumentation has two channels, there is no specified action if both channels are inoperable. The licensee has proposed to revise Action 5 to account for either one or both channels inoperable. The proposed Actions 5.a and 5.b would be for (a) one channel less than the minimum channels operable, and (b) two channels less than the minimum channels operable. Since there are only two channels, there would not be any other actions for more than two channels less than the minimum channels operable.

The safety evaluation addresses the proposed Action 5.a, but not the proposed Action 5.b. This is due to there being insufficient information from the licensee for the NRC staff to approve proposed Action 5.b. Because the licensee, in its letter dated September 30, 2008, requested

that the approval for the proposed Action 5.b be deferred until additional information is provided by the licensee to the NRC, the NRC staff will only address proposed Action 5.a in this safety evaluation.

As stated in the application, the extended range neutron flux instrumentation in TS Table 3.3-1 consists of two channels. The safety function of this instrumentation is to alert the operator to a loss of shutdown margin from a boron dilution event. In Modes 3, 4, and 5, the alarm provides the signal indicating an inadvertent boron dilution event. This alarm is not part of the reactor protective system but is used as a mitigating function for this event.

Since the extended range neutron flux instrumentation is also used for post-accident neutron flux monitoring, it is powered by Class 1E power and is seismically and environmentally qualified. However, the alarm actuated by the extended range neutron flux signal is not Class 1E qualified. The licensee stated that no credit is taken for other available functions in these modes to provide a signal or alarm to the plant operator (e.g., source range neutron flux).

The current Action 5 and the proposed Action 5.a are the remedial actions for LCO 3.3.1, which requires that the reactor trip instrumentation, including the extended range neutron flux instrumentation, shall be operable. These two actions are the remedial actions for the case of there being one inoperable channel for the extended range neutron flux instrumentation.

The current Action 5 reads as follows:

With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, suspend all operations involving positivity reactivity changes. Plant temperature changes or boron dilution is allowed provided the change is accounted for in the calculated SHUTDOWN MARGIN.

The words above that are written all in capitals are words that are defined in the TS 1.0, "Definitions," of the TSs.

The proposed Action 5.a reads as follows:

With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, **restore the inoperable channel to OPERABLE status within 72 hours, or immediately** suspend all operations involving positive reactivity changes.  
**Note:** Plant temperature changes or boron dilution is allowed provided the change is accounted for in the calculated SHUTDOWN MARGIN.

The words in **bold** are the words proposed to be added to the current Action 5.

The introduction of the word "Note" is an administrative change that has no effect on any of the requirements in the action statement. It administratively separates the (1) action of restoring the inoperable channel or suspending all positive reactivity change operations from (2) the statement that plant temperatures changes or boron dilution is allowed provided the change is accounted for in the safety margin.

The proposed Action 5.a adds a new completion time of 72 hours to Action 5 to allow the inoperable channel to be restored to operable status within the completion time before all operations involving positive reactivity changes are immediately suspended. This change is consistent with the Improved Standard Technical Specifications, NUREG-1431, TS 3.3.9, Boron Dilution Protection System (BDPS) for Westinghouse plants. This 72 hours to restore one inoperable channel to operable status before suspending positive reactivity changes is also consistent with other similar instrument functions in TS Table 3.3-1, e.g. Functional Unit 2, Power Range, Neutron Flux – High and Low Setpoints and Functional Unit 3, Power Range, Neutron Flux High Positive Rate. Furthermore, during this 72 hours period the other extended range neutron flux channel provides continuous indication of core power status to the operator and has the required alarm function, and therefore provides adequate protection. Based on the above considerations, the NRC staff concludes that the proposed change to replace current Action 5 by the proposed Action 5.a in TS Table 3.3-1 is acceptable and complies with 10 CFR 50.36.

The proposed Action 5.b is not being addressed in this safety evaluation because the licensee has not provided sufficient justification for the remedial action where both extended range neutron flux instrumentation channels are inoperable. Proposed Action 5.b will be addressed in a future safety evaluation after the licensee has provided further justification, as stated in the licensee's letter dated September 30, 2008.

The current Action 5 did not refer to two inoperable extended range neutron flux instrumentation channels being inoperable. With the proposed Action 5.b not being included in the amendment, this situation does not change. With the current Action 5 or with the proposed Action 5.a without the proposed Action 5.b, if there are two inoperable extended range neutron flux instrumentation channels inoperable, the licensee would enter LCO 3.0.3. Therefore, proposed Action 5.a may be approved without the proposed Footnote 5.b.

Since proposed Action 5.b is not part of this amendment, the proposed Action 5.a will be added to TS Table 3.3-1 as the new Action 5.

### 3.2 Proposed Change to Action c of LCO 3.4.1.4.2

In its application, the licensee proposed to revise Action c for LCO 3.4.1.4.2 on the residual heat removal (RHR) loops in Mode 5 with the reactor coolant loops not filled.

The current Action c reads as follows:

With a valve or mechanical joint used to isolate unborated water sources not secured in the closed position, immediately suspend all operations that would cause introduction into the RCS [reactor coolant system] of coolant with boron concentration less than required to meet SHUTDOWN MARGIN specified in the Core Operating Limits Report (COLR) and initiate action to secure the valve(s) or joint(s) in the closed position and within 4 hours verify boron concentration is within limits specified in the COLR. The required action to verify the boron concentration within limits must be completed whenever ACTION c is entered. A separate ACTION entry is allowed for each unsecured valve or mechanical joint.

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The proposed Action c reads as follows:

With a valve or mechanical joint used to isolate unborated water sources not secured in the closed position, immediately suspend all operations that would cause introduction into the RCS of coolant with boron concentration less than required to meet **the SHUTDOWN MARGIN** specified in the Core Operating Limits Report (COLR) and initiate action to secure the valve(s) or joint(s) in the closed position and within 4 hours verify the **SHUTDOWN MARGIN** is within limits specified in the COLR. The required action to verify the **SHUTDOWN MARGIN** within limits must be completed whenever ACTION c is entered. A separate ACTION entry is allowed for each unsecured valve or mechanical joint.

The proposed changes to the current Action c are shown in **bold**.

The proposed changes to TS 3.4.1.4.2, Action c, are the following: (1) add the article "the" to the words "SHUTDOWN MARGIN" and (2) replace the wording "boron concentration" with the wording "SHUTDOWN MARGIN" in two places.

First, the licensee proposed to add the article "the" to the first reference to shutdown margin to state that "With a valve or mechanical joint used to isolate unborated water sources not secured in the closed position, immediately suspend all operations that would cause introduction into the RCS [reactor coolant system] of coolant with boron concentration less than required to meet **the SHUTDOWN MARGIN** specified in the Core Operating Limits Report (COLR) ..." This change is an administrative change to the sentence to have the sentence refer to "the" shutdown margin in the COLR that does not change any requirements in the action statement. Based on this, the NRC staff concludes that the proposed change meets 10 CFR 50.36.

Second, as stated in the current Action c and remaining unchanged in the proposed Action c,

With a valve or mechanical joint used to isolate unborated water sources not secured in the closed position, immediately suspend all operations that would cause introduction into the RCS of coolant with boron concentration less than required to meet **SHUTDOWN MARGIN** specified in the Core Operating Limits Report (COLR).

Therefore, Action c is based on the shutdown margin specified in the COLR and not the boron concentration in the COLR.

The licensee stated that the current Action c use of the wording "boron concentration" is imprecise because the COLR specifies the shutdown margin based on the RCS critical boron concentration, but the COLR does not specify boron concentration.

The licensee's letter dated May 7, 2008, provides the COLR for Cycle 15 of STP, Unit 1. This COLR provides the shutdown margin, but does not provide boron concentrations. Therefore, the licensee has proposed to replace the boron concentration in Action c by the shutdown margin because only the shutdown margin is specified in the COLR. The shutdown margin in the COLR is based on the boron concentration, but the boron concentration is not specified in the COLR. Therefore, Action c can only require verification of the shutdown margin in the

COLR because the boron concentration is not in the COLR. This is an administrative change to the TSs that is not changing any requirement in Action c. The verification required by Action c will be in terms of what is specified in the COLR, the shutdown margin. Based on this, the NRC staff concludes that the change complies with the COLR that specifies the shutdown margin and, therefore, the change meets 10 CFR 50.36.

### 3.3 Conclusions

Based on the above evaluation, the NRC staff concludes that the proposed Action 5.a, the proposed addition of the article "the" to the words shutdown margin in Action c, and the proposed replacement of the words "boron concentration" by the words "SHUTDOWN MARGIN" meet 10 CFR 50.36 and, therefore, these changes to TS Table 3.3-1 and Action c of LCO 3.4.1.4.2 are acceptable. The proposed Action 5.b will be addressed in a future safety evaluation.

### 4.0 STATE CONSULTATION

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

### 5.0 ENVIRONMENTAL CONSIDERATION

The amendments change a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration, and there has been no public comment on such finding published in the *Federal Register* on March 25, 2008 (73 FR 15788). Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

### 6.0 CONCLUSION

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

Principal Contributors: Subinoy Mazumdar  
Jack Donohew

Date: October 16, 2008

October 16, 2008

Mr. Edward D. Halpin  
Chief Nuclear Officer  
STP Nuclear Operating Company  
South Texas Project  
P.O. Box 289  
Wadsworth, TX 77483

**SUBJECT: SOUTH TEXAS PROJECT, UNITS 1 AND 2 - ISSUANCE OF AMENDMENTS  
RE: EXTENDED RANGE NEUTRON FLUX INSTRUMENTATION AND  
TECHNICAL SPECIFICATION 3.4.1.4.2 (TAC NOS. MD8003 AND MD8004)**

Dear Mr. Halpin:

The Commission has issued the enclosed Amendment No. 187 to Facility Operating License No. NPF-76 and Amendment No. 174 to Facility Operating License No. NPF-80 for the South Texas Project (STP), Units 1 and 2, respectively. The amendments consist of changes to the Technical Specifications (TSs) in response to your application dated January 28, 2008 (NOC-AE-07002234), as supplemented by letters dated July 28 and September 25, 2008 (NOC-AE-08002319 and NOC-AE-08002351, respectively).

The amendments revise (1) Action 5 in TS 3.3.1, "Reactor Trip Instrumentation," for one inoperable channel of extended range neutron flux instrumentation and (2) Action c in TS 3.4.1.4.2, "Reactor Coolant System, Cold Shutdown - Loops Not Filled." This letter does not complete the Nuclear Regulatory Commission staff's review of the application. The remaining proposed TS change to Action 5 will be addressed in a future letter.

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

Sincerely,

/RA/

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

Docket Nos. 50-498 and 50-499

Enclosures:

1. Amendment No. 187 to NPF-76
2. Amendment No. 174 to NPF-80
3. Safety Evaluation

cc w/encls: See next page

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GHill, OIS (4) 10/16/08

**ADAMS Accession No. ML082810286**

\* See previous concurrence

\*\* See memo dated 10/03/08

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