

September 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: DEVIATION FROM FIRE PROTECTION PROGRAM REQUIREMENTS
(TAC NOS. MD6694 AND MD6695)

Dear Mr. Halpin:

The Commission has issued the enclosed Amendment No. 186 to Facility Operating License No. NPF-76 and Amendment No. 173 to Facility Operating License No. NPF-80 for the South Texas Project, Units 1 and 2, respectively. The amendments consist of changes to the Technical Specifications (TSs) in response to your application dated August 27, 2007 (NOC-AE-07002169), as supplemented by letters dated March 27 and September 5, 2008 (NOC-AE-08002274 and NOC-AE-08002345).

The amendments revise License Condition 2.E, "Fire Protection," to approve a revision to the fire protection program requirements that are documented in the licensee's Fire Hazard Analysis Report (FHAR). Specifically, the use of reactor operator manual actions in lieu of meeting protection requirements of circuit separation is approved. The licensee requested that the FHAR pages in Attachment 2 to the application be withheld from the public in accordance with Section 2.390 of Title 10 of the *Code of Federal Regulations*. The NRC staff reviewed this request and agrees that the pages are sensitive unclassified. Therefore, the pages in Attachment 2 will be withheld from the public.

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/

Mohan C. Thadani, 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. 186 to NPF-76
2. Amendment No. 173 to NPF-80
3. Safety Evaluation

cc w/encls: See next page

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 Mohan C. Thadani, Senior Project Manager
 Plant Licensing Branch IV
 Division of Operating Reactor Licensing
 Office of Nuclear Reactor Regulation

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(**)Previously concurred

ADAMS Accession Nos.: Pkg ML082280460, Amendment ML082280465, License Pgs ML082280472 (*) SE input

OFFICE	NRR/LPL4/PM	NRR/LPL4/LA	DRA/AFP/BC	OGC - NLO	NRR/LPL4/BC	NRR/LPL4/PM
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OFFICIAL RECORD COPY

South Texas Project, Units 1 and 2

7/29/2008

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STP NUCLEAR OPERATING COMPANY

DOCKET NO. 50-498

SOUTH TEXAS PROJECT, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 186
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 August 27, 2007, as supplemented by letters dated March 27 and September 5, 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.

*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 as indicated in the attachment to this license amendment, and Paragraph 2.E of Facility Operating License No. NPF-76 is hereby amended to read as follows:

E. Fire Protection

STPNOC shall implement and maintain in effect all provisions of the approved fire protection program as described in the Final Safety Analysis Report through Amendment No. 55 and the Fire Hazard Analysis Report through Amendment No. 18, and submittals dated April 29, May 7, 8 and 29, June 11, 25 and 26, 1987, and as approved in the SER (NUREG-0781) dated April 1986 and its Supplements, subject to the following provision:

STPNOC may make changes to the approved fire protection program without prior approval of the Commission, only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

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

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

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: September 16, 2008

STP NUCLEAR OPERATING COMPANY

DOCKET NO. 50-499

SOUTH TEXAS PROJECT, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 173
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 August 27, 2007, as supplemented by letters dated March 27 and September 5, 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.

*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 as indicated in the attachment to this license amendment, and Paragraph 2.E of Facility Operating License No. NPF-80 is hereby amended to read as follows:

E. Fire Protection

STPNOC shall implement and maintain in effect all provisions of the approved fire protection program as described in the Final Safety Analysis Report through Amendment No. 62 and the Fire Hazard Analysis Report through Amendment No. 18, and submittals dated April 29, May 7, 8 and 29, June 11, 25 and 26, 1987, and as approved in the SER (NUREG-0781) dated April 1986 and its Supplements, subject to the following provision:

STPNOC may make changes to the approved fire protection program without prior approval of the Commission, only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

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

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

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: September 16, 2008

ATTACHMENT TO LICENSE AMENDMENT NOS. 186 AND 173

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 with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Facility Operating License No. NPF-76

REMOVE

INSERT

- 9 -

- 9 -

Facility Operating License No. NPF-80

REMOVE

INSERT

- 8 -

- 8 -

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NOS. 186 AND 173 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 August 27, 2007, to the U.S. Nuclear Regulatory Commission (NRC), as supplemented by letters dated March 27 and September 5, 2008 (Agencywide Documents Access and Management System (ADAMS) Accession Nos. ML072480277, ML080980017, and ML082590007, respectively), STP Nuclear Operating Company (STPNOC, the licensee), requested a change to the operating licenses for South Texas Project (STP), Units 1 and 2. The licensee requested approval of a revision to the fire protection program requirements that is documented in the licensee's Fire Hazard's Analysis Report (FHAR).

The proposed change would approve a revision of the STP Fire Protection Program (FPP) to allow the performance of operator manual actions to achieve and maintain safe shutdown in the event of a fire in lieu of meeting circuit separation requirements. This change is requested for Fire Area 32 located in the Mechanical/Electrical Auxiliary Building (MEAB). In the event of a fire in Fire Area 32 of the MEAB, that involves a reactor trip, the change would allow the licensee to perform manual actions to de-energize breakers and manually open valves, instead of protecting the components in accordance with the STP current licensing basis.

These operator manual actions are to ensure that adequate boron concentration is available for reactivity control and also to ensure that adequate inventory control is maintained for safe shutdown following a fire. These operator manual actions are intended to provide adequate assurance that the reactor can be safely shut down in the event of a fire.

The supplemental letters dated March 27 and September 5, 2008, provided additional information that clarified the application, did not expand the scope of the application as originally noticed, and did not change the U.S. Nuclear Regulatory Commission (NRC) staff's original proposed no significant hazards consideration determination as published in the *Federal Register* on November 20, 2007 (72 FR 65373).

2.0 REGULATORY EVALUATION

Regulatory requirements for fire protection are in (1) Section 50.48, "Fire protection," (2) General Design Criterion 3, "Fire protection," of Appendix A, and (3) Appendix R, "Fire

Protection Program for Nuclear Power Facilities Operating Prior to January 1, 1949," of Part 50, "Domestic Licensing of Production and Utilization Facilities," to Title 10 of the *Code of Federal Regulations* (10 CFR Part 50). The circuit separation requirements being addressed in this license amendment request (LAR) are specified in Section III.G.2 of Appendix R in Part 50 of Title 10 of the *Code of Federal Regulations* (10 CFR) (hereafter referred to as Section III.G.2). Since STP Units 1 and 2 were licensed after January 1, 1979, the licensee is not obligated to meet the requirements of Section III.G.2; however, because the licensee has committed to meet the requirements of Section III.G.2 in its approved FPP as documented in License Condition 2.E, the licensee is required to meet the requirements of Section III.G.2.

The NRC-approved FPP is documented in Amendment 7 of the licensee's FHAR. The STP Unit 1 License Condition 2.E specifies in part that, "STPNOC shall implement and maintain in effect all provisions of the approved fire protection program as described in the Final Safety Analysis Report through Amendment No. 55 and the Fire Hazard Analysis Report through Amendment No. 7, and submittals dated April 29, May 7, 8 and 29, June 11, 25 and 26, 1987, and as approved in the SER (NUREG-0781) dated April 1986 and its Supplements, subject to the following provision: ..." This license condition is being changed in these amendments.

The STP Unit 2 License Condition 2.E specifies in part that, "STPNOC shall implement and maintain in effect all provisions of the approved fire protection program as described in the Final Safety Analysis Report through Amendment No. 62 and the Fire Hazard Analysis Report through Amendment No. 7, and submittals dated April 29, May 7, 8 and 29, June 11, 25 and 26, 1987, and as approved in the SER (NUREG-0781) dated April 1986 and its Supplements, subject to the following provision: ..." This license condition is also being changed in these amendments.

The STP FHAR provides an analysis of how the safe shutdown strategy for each fire area meets the applicable regulatory requirements.

3.0 BACKGROUND

The operator manual actions proposed in this LAR have not been previously reviewed by the NRC. The licensee has provided an analysis of the criteria from a draft version of NUREG-1852, "Demonstrating the Feasibility and Reliability of Operator Manual Actions in Response to Fire," dated August 2006 (ADAMS Accession No. ML062970251), for justifying the feasibility and reliability of the operator manual actions specified in this request in lieu of meeting circuit separation protection requirements. The final version of NUREG-1852 (ADAMS Accession No. ML073020676) was issued on October 31, 2007.

Substituting operator manual actions for the protection described in Section III.G.2 is considered an adverse effect on the ability to safely shut down. Specifically, attributes of defense-in-depth of the units are affected (see the technical evaluation below). Therefore, prior approval by the NRC is required in accordance with the STP Units 1 and 2 license conditions. A license amendment is the tool that the NRC uses to approve the use of operator manual actions for plants licensed after January 1, 1979.

4.0 TECHNICAL EVALUATION

The NRC staff reviewed the licensee's request to perform operator manual actions in lieu of meeting required circuit separation as specified in Section III.G.2 a, b, or c, in accordance with: (1) the technical information published in NUREG-1852, and (2) additional considerations to ensure that adequate defense-in-depth such as fire detection and automatic suppression is maintained, as addressed in Regulatory Guide 1.189, "Fire Protection for Nuclear Power Plants."

The licensee stated that the proposed operator manual actions are to open charging pump suction valve CV-MOV-0112C (Train C) to align the charging pumps suction to the refueling water storage tank and to de-energize and manually close the volume control tank outlet valve CV-MOV-0112B (Train B) to the charging pumps suction. These actions are to ensure that (1) adequate boron concentration is available for reactivity control, and (2) adequate inventory control is maintained for safe shutdown.

STP Units 1 and 2 are replicate plants with identical fire protection systems within the power block; therefore, the following discussion applies to both units.

4.1 Area Description

Fire Area 32 is a multi-elevation area in the MEAB composed of 12 fire zones. Cables for each of the two charging pump suction motor-operator valves are routed through Fire Area 32 without meeting the train separation requirements of the STP FPP. The redundant C Train and B Train cables are separated by a 3-hour rated floor that has unrated penetrations. The C Train's cables are routed in Fire Area 32 Zone 122 which is the Heating Ventilating and Air Conditioning (HVAC) Intake and Hot Machine Shop located on the 60 foot elevation. This fire zone has fire suppression consisting of automatic wet pipe sprinklers over concentrated cabling. The B Train's cables are routed in Fire Area 32 Zone 134 which is a non-radioactive pipe chase located on the 29 foot elevation. This fire zone has fire suppression consisting of automatic wet pipe sprinklers over concentrated cabling.

With the exception of Fire Zone 131, fire zones within Fire Area 32 have ionization detectors to provide warning and to locate fires to facilitate manual fire fighting. Alarm annunciation is provided locally and in the control room.

4.2 Feasibility and Reliability of the Operator Manual Actions

The NRC technical guidance on acceptable operator manual actions is in accordance with the technical information published in the final NUREG-1852, "Demonstrating the Feasibility and Reliability of Operator Manual Actions in Response to Fire," dated September 2007 (ADAMS Accession No. ML073020676). There are no technical differences between the draft that the licensee used and the final version that the NRC staff used as a review tool. The information provided in NUREG-1852 provides criteria and associated technical basis for evaluating the feasibility and reliability of post-fire operator manual actions implemented in nuclear power plants. The criteria were developed by NRC to guide the NRC staff in evaluating the acceptability of post-fire operator manual actions.

The licensee has provided in its submittals the information of the methodology, utilized in accordance with NUREG-1852, to perform its analysis. The information regarding the licensee's analysis was reviewed in the following sections to assure feasibility and reliability:

- 4.2.1 Adequate Time Available to Perform the Actions to Address Feasibility
- 4.2.2 Adequate Time Available to Ensure Reliability
- 4.2.3 Environmental Factors
- 4.2.4 Equipment Functionality and Accessibility
- 4.2.5 Available Indications
- 4.2.6 Communications
- 4.2.7 Portable Equipment
- 4.2.8 Personal Protection Equipment
- 4.2.9 Procedures and Training
- 4.2.10 Staffing Criteria
- 4.2.11 Demonstration

4.2.1 Adequate Time Available to Perform the Actions to Address Feasibility

Based on its thermal-hydraulic analysis, the licensee states that the actions must be performed within 2 hours following a reactor trip to support reactivity control and inventory control for cooldown. Upon detection of a fire, plant procedures direct the operator to assess whether the nature of the fire has reached the point of jeopardizing the capability of systems and components in the fire area to support achieving safe shutdown. If the assessment determines that the fire has reached this point, plant procedures specifically direct the manual actions (i.e., de-energize and manually open CV-MOV-0112C and de-energize and manually close CV-MOV-0112B). The licensee states that the actions to de-energize and manually open CV-MOV-0112C and de-energize and manually close CV-MOV-0112B can be performed in 50 minutes which includes 5 minutes to re-position each valve.

CV-MOV-0112C is located in Fire Area 25 and CV-MOV-0112B is located in Fire Area 3. Both of these fire areas border Fire Area 32.

4.2.2 Adequate Time Available to Ensure Reliability

Based on its thermal-hydraulic analysis, the licensee states that the actions must be performed within 2 hours following a reactor trip to support reactivity control and inventory control for cooldown. Upon detection of a fire, plant procedures direct the operator to assess and direct as necessary the performance of the manual actions (i.e., de-energize and manually open CV-MOV-0112C and de-energize and manually close CV-MOV-0112B) which the licensee states can be diagnosed and performed in 50 minutes which includes 5 minutes to re-position each valve. The licensee analyzed variations in fire and related plant conditions and the variability of detection response times and sensitivities and found them to be insignificant relative to the 2 hours available to perform the actions.

The licensee has stated that the actions to de-energize and manually open CV-MOV-0112C and de-energize and manually close CV-MOV-0112B are performed in an accessible room (e.g., not locked) which can be reached from most plant locations without traversing through Fire Area 32 and that all equipment to perform the actions remains functional and accessible during a fire.

There are two plant areas where the safe shutdown operator could be initially located such that traversing through Fire Area 32 would be the normal transit route for performing the manual actions. One is the Fuel Handling Building (FHB), which is normally entered by the operator for a few minutes each shift, and the other is the Reactor Containment Building (RCB), which the operator does not normally enter during the shift. Both of these areas have alternate egress paths such that the operator would not have to go through Fire Area 32. The alternate FHB egress path would add less than 6 minutes and the alternate RCB egress path would add less than 10 minutes to the time for the operator to perform the proposed manual actions.

One additional scenario could require the operator to transit Fire Area 32 or take an alternate route. If refueling water storage tank level indication is not available in the control room, the operator is directed to go to the FHB to verify the level indication by local indication. If the operator cannot traverse through Fire Area 32 because of the nature of the fire in that area, then the operator will go to the FHB using an outside transit route.

The licensee stated that factors that could not be recreated in the walkdown demonstrations were analyzed. These included problems with equipment such as locked doors, environmental effects that cannot be easily simulated in a demonstration, uncertainty in the travel paths required by the safe shutdown operator, and variability in individual operator performance.

4.2.3 Environmental Factors

The licensee stated that the expected environmental conditions were considered for the locations where the operator manual actions are performed and the access route to these locations; and that a fire in Fire Area 32 will not impact the manual operations or pathway to the locations of the valves and electrical breakers. Fire Area 32 is a large multi-level fire area surrounded by concrete walls that prevent the spread of fire to adjacent fire areas. Some light smoke may propagate to the adjacent areas.

Fire Areas 3 and 25, where the manual actions are taken, border Fire Area 32. Fire Area 32 has solid walls except for an open walkway. Ventilation is into Fire Area 32. With the openness of Fire Area 32 the majority of smoke should be vented upward. The HVAC design for this area is a once-through system so that the smoke is expected to be forced out of the building.

The licensee explained that the location for de-energizing the valve motor-operators is in a non-radiologically controlled area. The location for manually re-positioning the valves is in a radiologically controlled area. However, the area is not contaminated, and protective clothing is not required. Sufficient emergency lighting exists in the areas where the actions are performed and along the travel routes to the areas. The noise levels in the areas where the actions are performed should not impede the use of normal communications.

4.2.4 Equipment Functionality and Accessibility

The licensee stated that the operator manual actions to de-energize and open CV-MOV-0112C and to de-energize and close CV-MOV-0112B are performed at locations remote from Fire Area 32 and that the equipment to perform the actions remains functional and accessible during a fire in Fire Area 32.

4.2.5 Available Indications

The licensee stated that the fire safe shutdown analysis demonstrates that sufficient indication is protected from the effects of fire in Fire Area 32 and exists in the control room to verify that the operator manual actions have the expected result. All nuclear instrumentation for reactivity indication and pressurize level channels A and B for inventory indication remain available.

4.2.6 Communications

The licensee stated that communications are conducted by radio that plant operators routinely carry, and the reception at the locations where these actions are performed is adequate for proper communication. The rooms are not high noise areas.

4.2.7 Portable Equipment

The licensee stated that portable equipment is not required to perform these manual actions.

4.2.8 Personal Protection Equipment

The licensee also stated that personnel protective equipment is not required to perform these manual actions.

4.2.9 Procedures and Training

The licensee stated that the plant operations staff have been trained on the use of this plant procedure through the licensed operator re-qualification program. The operator manual actions are straightforward. Once the fire condition in Fire Area 32 is diagnosed as jeopardizing safe shutdown capability following a reactor trip, the actions are performed in sequence without further diagnosis.

4.2.10 Staffing Criteria

The licensee stated that the operations shift staffing is organized to specifically designate the staffs that are responsible to perform the fire response procedures outside the control room. These personnel are not assigned firefighting responsibilities.

4.2.11 Demonstration

The licensee stated that the demonstration of these operator manual actions by a crew was performed within 50 minutes. The licensee's procedural strategy is to perform these actions prior to entering other emergency operating procedures so that operators are not required to handle multiple procedures to achieve safe shutdown conditions in response to a fire.

4.3 Defense-In-Depth Review

The concept of defense-in-depth, described in 10 CFR Part 50, Appendix R, applies to fire protection in fire areas important to safety, with the following three objectives:

1. Prevent fires from starting;
2. Detect rapidly, control, and extinguish promptly those fires that do occur; and
3. Provide protection for structures, systems, and components (SSCs) important to safety so that a fire that is not promptly extinguished by fire suppression activities will not prevent the safe shutdown of the plant.

The objective of defense-in-depth that is challenged by this license amendment is the third objective, protecting SSCs important to safety from a fire that is not promptly extinguished. For the plant area described it would be expected that this objective of defense-in-depth would be met by having separation distance or fire barriers installed and, in some cases, fire detection and suppression. Section III.G.2 provides the following means to ensure that a redundant train of safe shutdown equipment is free of fire damage, where redundant trains are located in the same fire area:

- a. separation of cables and equipment by a fire barrier having a 3-hour rating;
- b. separation of cables and equipment by a horizontal distance of more than 20 feet with no intervening combustibles or fire hazards and with fire detectors and an automatic fire suppression system in the fire area; or
- c. enclosure of cables and equipment in a fire barrier having a 1-hour rating and with fire detectors and an automatic fire suppression system in the fire area.

The redundant C Train and B Train cables are separated by a 3-hour rated floor; however, this floor has unrated penetrations. These penetrations are not within 30 feet of the cable areas. The C Train cables are routed in Fire Area 32, Zone 122. The B Train cables are routed through Fire Area 32, Zone 134. Both fire zones have (1) fire suppression consisting of automatic wet pipe sprinklers over concentrated cabling, and (2) ionization detectors to provide warning and to locate fires to facilitate manual fire fighting. The B Train cables then traverse the 10 foot elevation of the MEAB to the location of the B Train valve which is located in Fire Area 25. This area of the MEAB has no fire suppression.

For both cables to be impacted by a single fire, the fire would have to propagate approximately 70 feet horizontally on one level crossing an approximately 5-foot-wide hallway with concrete walls and no combustibles then traverse approximately 39 feet in the vertical direction before traversing approximately another 70 feet horizontally to affect the redundant cable. Although there is considerable separation, partial detection, and partial fire suppression in this area between the redundant cables, the requirements of Section III.G.2 separation are not fully met.

4.3.1 Fire Prevention

The objective of fire prevention is not affected by the use of an operator manual action. The area of the plant where the fire could occur that would require the manual actions to be performed has combustible loading allowances and limitations on hot work or other activities that are similar to other plant areas.

4.3.2 Detect, Control, and Extinguish Fires

This objective is also not affected by the use of an operator manual action. Eleven (11) of twelve (12) fire zones within Fire Area 32 are equipped with ionization detectors to provide warning and to locate fires to facilitate manual firefighting. Alarm annunciation is provided locally and in the control room. Fire Zone 131 does not have a detection system. Partial automatic wet pipe sprinkler systems are installed over concentrated cabling in Fire Zones 122, 134, and 145. In the event that a fire did occur in Fire Area 32, fire suppression equipment (hose stations and fire extinguishers) are available to the fire brigade.

4.3.3 Protect SSC so that Fires Will Not Prevent Safe Shutdown

Existing fire protection regulations rely on passive fire protection through fire barriers that, when operable, have a high level of reliability to prevent the damage to redundant trains required for fire safe shutdown. The cables are not separated by a rated fire barrier. The licensee stated that the cables are separated by a 3-hour rated floor; however, this floor has unrated penetrations. None of the penetrations are within 30 feet of the cable areas.

The cables have a horizontal separation of approximately 140 feet and a vertical separation of approximately 39 feet. The existing physical separation and configuration of the area makes it unlikely that the cables of interest will be damaged by a single fire in Fire Area 32. Although there is physical separation, it is not equivalent to 20 feet of separation with no intervening combustibles with fire detection and automatic suppression, or either of the other Section III.G.2 options, requiring fire barriers. Therefore, the NRC staff concludes that this objective of defense-in-depth is reduced with respect to licensee's commitment to meet the requirements of 10 CFR Part 50, Appendix R, Section III.G.

4.4 Conclusion of Technical Evaluation

Based on the reduction identified in the defense-in-depth element three (Section 4.3.3 above), and no enhancement of defense-in-depth in the other two elements, the quality of the proposed manual actions to compensate for this reduction must be high. The review of the manual actions against the information provided in NUREG-1852 and, as discussed in Section 4.2 above, provides adequate assurance that the proposed manual actions are appropriate to compensate for the reduction in protection required by the STP licensing basis. Therefore, the NRC staff concludes that, although these operator manual actions are considered an adverse effect, there is reasonable assurance that the plant can safely shut down in the event of a fire in Fire Area 32. Based on this, the NRC staff further concludes that the deviation to the SRP FPP is acceptable.

In Attachment 2 to its application, the licensee provided the changes to the FHAR that describe this deviation. The NRC staff has reviewed these changes to the FHAR and conclude that they accurately describe the deviation that is being approved by this amendment.

The licensee also requested in its application that the pages of the FHAR that are in Attachment 2 to the application be withheld from the public in accordance with 10 CFR 2.390. In its letter dated September 5, 2008, the licensee stated that the information on the STP FPP given in the pages in Attachment 2 are sensitive unclassified. The NRC staff has reviewed

these and agrees with the licensee's conclusion. Based on this, the NRC staff further concludes that these pages from the STP FHAR will be withheld from the public.

4.5 Changes to License Condition 2.E

In its letter dated September 5, 2008, the licensee proposed the changes to License Condition 2.E for both STP units. The revised license condition for STP Unit 1 Facility Operating License No. NPF-76 will read as follows:

E. Fire Protection

STPNOC shall implement and maintain in effect all provisions of the approved fire protection program as described in the Final Safety Analysis Report through Amendment No. 55 and the Fire Hazard Analysis Report through Amendment No. 18, and submittals dated April 29, May 7, 8 and 29, June 11, 25 and 26, 1987, and as approved in the SER (NUREG-0781) dated April 1986 and its Supplements, subject to the following provision:

STPNOC may make changes to the approved fire protection program without prior approval of the Commission, only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

The revised license condition for STP Unit 2 Facility Operating License No. NPF-80 will read as follows:

E. Fire Protection

STPNOC shall implement and maintain in effect all provisions of the approved fire protection program as described in the Final Safety Analysis Report through Amendment No. 62 and the Fire Hazard Analysis Report through Amendment No. 18, and submittals dated April 29, May 7, 8 and 29, June 11, 25 and 26, 1987, and as approved in the SER (NUREG-0781) dated April 1986 and its Supplements, subject to the following provision:

STPNOC may make changes to the approved fire protection program without prior approval of the Commission, only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.

In its supplemental letter dated September 5, 2008, the licensee proposed to change the amendment number of its FHAR in License Condition 2.E because the proposed deviation to the FPP in the application will be contained within that report. The Final Safety Analysis Report is not being changed because of the deviation. The FHAR that will contain the deviation is stated to be Amendment No. 18 for both units because the FHAR applies to both units.

Since the current amendment number for the FHAR in the license for both units is Amendment No. 7 and the proposed amendment number is 18, the licensee explained in its letter dated September 5, 2008, that the intervening amendments to the FHAR were approved by the licensee through the provision in License Condition 2.E that states the following: "STPNOC [the

licensee] may make changes to the approved fire protection program without prior approval of the Commission, only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire."

In Attachment 3 to its letter dated September 5, 2008, the licensee listed the letters for FHAR Amendment Nos. 8 through 17 from the licensee to the NRC addressing the licensee-approved changes to the FPP. As stated by the licensee, the NRC has not reviewed and approved these amendments to the FHAR. Amendment Nos. 8 through 17 were approved by the licensee in accordance with the provision in License Condition 2.E that states the licensee "may make changes to the approved fire protection program without prior approval of the Commission, ... if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire." Therefore, the NRC staff did not approve FHAR Amendments Nos. 8 through 17 and was not required to approve those amendments.

The NRC may review the letters in Attachment 3 to the September 5, 2008, letter as a part of an inspection of the licensee's FPP and take such action as it deems required by its evaluation of the changes to the FPP in these letters. However, given that License Condition 2.E allows the licensee to amend the FHAR without NRC staff review because "those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire," the NRC staff concludes that approving proposed deviation to the FPP by approving the FHAR through Amendment No. 18, with Amendment No. 18 containing the proposed deviation to the FPP, is acceptable because the NRC staff has no reason at this time to believe that the FHAR Amendments Nos. 8 through 17 do not meet License Condition 2.E.

5.0 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.

6.0 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 November 20, 2007 (72 FR 65373). 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.

7.0 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.

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