Nuclear Operating Company

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

April 27, 2000
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U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555

South Texas Project
Units 1 and 2
Docket Nos. STN 50-498, STN 50-499
Proposed Amendment to
South Texas Project Technical Specifications to Modify Requirements
Associated with Control Room and Fuel Handling Building HVAC Systems

Reference: Letter from T. H. Cloninger, South Texas Project to the NRC Document Control Desk dated September 18, 1998 (NOC-AE-000305)

Letter from T. H. Cloninger, South Texas Project to the NRC Document Control Desk dated April 22, 1999 (NOC-AE-000513)

The referenced letters describe a request from the South Texas Project to amend the operating licenses for Units 1 and 2 by changing the Technical Specifications to modify requirements associated with the Control Room and Fuel Handling Building HVAC Systems. The amendment proposes an allowed outage time of 12 hours for a condition where multiple trains of Control Room or Fuel Handling Building HVAC Systems are inoperable. In addition to the extended completion time, the proposed amendment includes changes to make the required action for the affected ventilation actuation instrumentation consistent with the action for inoperable ventilation trains and a minor administrative change to remove an expired dated action. This submittal supplements and supersedes the proposed amendment described above.

The proposed changes to the Technical Specifications have been revised from the original submittal as described below:

1. Removing an outdated footnote on pages 3/4 3-28 and 3/4 7-19 and associated Bases.

2. Including in proposed Technical Specification 3.7.7 MODES 1, 2, 3, and 4 ACTION c. a requirement to suspend activities involving movement of spent fuel, and crane operations with loads over the spent fuel pool.

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3. Revising the proposed ACTION a. of Technical Specification 3.7.7 MODES 5 and 6 to include suspending positive reactivity changes.

4. Clarifying Technical Specification 3.7.7 MODES 5 and 6 ACTION b. with respect to the number of Control Room Makeup and Cleanup Filtration Systems affected by the action and with respect to the requirement for emergency power for the operable systems.

5. Revising the action in ACTION b. of Technical Specification 3.7.7 MODES 5 and 6 from "suspend all operations involving core alterations or positive reactivity changes" to "suspend all operations involving positive reactivity changes, core alterations, movement of spent fuel, and crane operations with loads over the spent fuel pool". This will make the actions required in ACTION b. consistent with the actions allowed in ACTION a. of the same specification.

In addition to the changes above, this revised application consolidates and enhances the information provided in the original submittals. The following information has been added:

1. It more specifically addresses the requirements of NRC Regulatory Guides 1.174 and 1.177 with regard to the risk-informed aspects of the proposed change.

2. It includes a comparison to Technical Specification Task Force traveler #287 (TSTF-287) which is an industry generic change that is similar to the change proposed by the South Texas Project.

3. It includes additional information describing the compensatory action associated with the proposed change. These are identified in the RG 1.174/1.177 attachment.

4. It adds additional information to the Bases based on the Bases changes associated with TSTF-287.

5. The Bases associated with Table 3.3-3 ACTION 28 are revised to clarify that any two of the three 50% trains of Control Room Makeup and Cleanup Filtration meet the Technical Specification requirement to operate the system at 100% capacity.

6. It includes proposed revised Technical Specification pages in addition to the pages with annotated changes.

7. It includes a list of associated commitments.

South Texas Project 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 South Texas Plant Project Operations Review Committee and the Nuclear Safety Review Board have reviewed and approved the proposed amendment.

The required affidavit, a Description of the Change and Safety Evaluation, and Determination of No Significant Hazards Consideration are included as attachments to this letter.

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

This proposed amendment is not a high priority change, however, the South Texas Project requests that it be reviewed and approved by September 29, 2000. The South Texas Project requests up to 60 days for implementation.

If there are any questions regarding the proposed amendment, please contact Mr. A. W. Harrison at (361) 972-7298 or me at (361) 972-8757.

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

AWH/

Attachments:

1. Affidavit
2. Description of Change and Safety Evaluation
3. Determination of No Significant Hazards and Environmental Assessment
4. Risk-informed Evaluation per Regulatory Guides 1.174 and 1.177
5. Annotated Technical Specification Pages
6. Revised Technical Specification Pages
7. Annotated Bases Pages
8. Revised Bases Pages
9. List of Commitments

cc:

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

John A. Nakoski
Project Manager, Mail Code 0-4D3
U. S. Nuclear Regulatory Commission
Washington, DC 20555-0001

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

A. H. Gutterman, Esquire
Morgan, Lewis & Bockius
1800 M. Street, N.W.
Washington, DC 20036-5869

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

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

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

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

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

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

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

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

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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

AFFIDAVIT

I, J. J. Sheppard, being duly sworn, hereby depose and say that I am Vice President, Engineering and Technical Services of STP Nuclear Operating Company; that I am duly authorized to sign and file with the Nuclear Regulatory Commission the attached proposed Technical Specification amendment; 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 and Technical Services

STATE OF TEXAS	)	
	)	
COUNTY OF MATAGORDA	)	

27th Subscribed and sworn to before me, a Notary Public in and for the State of Texas, this day of April, 2000.

Linda Rittenberry
Notary Public in and for the
State of Texas

ATTACHMENT 2

DESCRIPTION OF CHANGE AND SAFETY EVALUATION

Description of Change and Safety Evaluation

Description of Change:

The proposed changes will modify the requirements applicable when one or more trains of Fuel Handling Building (FHB) Exhaust Air or Control Room (CR) Makeup and Cleanup Filtration are inoperable. The South Texas Project system design for these systems is unique and the proposed changes will account for these design features. In addition, the proposed changes will align the actuating instrumentation and logic system required actions with those that are applicable to the systems. The proposed changes will eliminate the need to enter Technical Specification 3.0.3 when multiple trains of these systems are inoperable. Specific ACTIONs are proposed to address these conditions. Finally, an administrative change is proposed to remove footnotes on pages 3/4 3-28, 3/4 7-19, and 3/4 7-20 that are no longer applicable to the facility.

Technical Specifications affected by the proposed change are as follows:

3/4.3.2, Table 3.3-3, "Engineered Safety Features Actuation System Instrumentation, Control Room Ventilation," and "FHB HVAC," ACTIONs 27, 28, and 29

3/4.7.7, "Control Room Makeup and Cleanup Filtration System"

3/4.7.8, "Fuel Handling Building (FHB) Exhaust Air System"

3/4.9.12, "Fuel Handling Building Exhaust Air System"

<u>Engineered Safety Features Actuation System Instrumentation</u>

The ACTIONs associated with inoperable actuation instrumentation are being modified to align the allowed outage times for less than the minimum channels OPERABLE with those that apply when a similar condition exists on the actuated system. Specifically;

- ACTION 27 is modified to declare the ventilation train associated with the inoperable channel inoperable and requires the actions for an inoperable ventilation train be carried out per Specification 3.7.7. These changes are consistent with measures described in South Texas Project Unit 2 License Event Report 95-007 dated November 15, 1995.

- ACTION 28 is modified to remove the mode dependent action requirements. This change establishes a standard system alignment, consistent with the actuated position, in response to the inoperability of a radiation monitoring channel and will result in maintaining the control room envelope pressurized while supplying a dilution flow of fresh filtered air regardless of plant mode. The requirement for a filtered recirculation without makeup flow was a holdover from the previously removed toxic gas requirements. The Bases associated with ACTION 28 are also revised to clarify that any two of the three 50% trains of Control Room Makeup and

Cleanup Filtration meet the Technical Specification requirement to operate the system at 100% capacity.

- ACTION 29 is also being modified to align the allowed outage times for less than the minimum channels OPERABLE with those that apply when a similar condition exists on the actuated system. This change will be worded similarly to ACTION 27 above. Specifically, ACTION 29 is modified to declare the ventilation train associated with the inoperable channel inoperable and requires the actions for an inoperable ventilation train be carried out per Specification 3.7.8.

Control Room Makeup and Cleanup Filtration System

Specification 3/4.7.7 is modified by addition of an ACTION applicable when operating in MODES 1, 2, 3, and 4. The proposed new ACTION is structured similarly to existing ACTION b. that addresses the condition of two Control Room Makeup and Cleanup Filtration Systems being inoperable. However proposed ACTION c. provides for up to 12 hours to restore at least one system to OPERABLE status when all three systems are inoperable, or be in HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. In addition, the proposed ACTION c. requires suspension of all operations involving movement of spent fuel, and crane operation with loads over the spent fuel pool. The actions applicable in MODES 5 and 6 are proposed to be modified to permit a suspension of all operations involving CORE ALTERATIONS, positive reactivity changes, movement of spent fuel, and crane operation with loads over the spent fuel pool rather than placing the control room ventilation system in operation while one Control Room Makeup and Cleanup Filtration System is inoperable. In addition, ACTION b. in MODES 5 and 6 is clarified to apply to "more than one" of the Control Room Makeup and Cleanup Filtration Systems instead of applying to only two. This acknowledges that the specification applies to three systems. The ACTION is further revised by changing "System" to "Systems" to make it clear both the OPERABLE Systems are required to be backed by an emergency power source. Finally, the required actions of ACTION b. are modified to match those of ACTION a. for consistency between the two actions.

Fuel Handling Building Exhaust Air System

ACTIONs associated with Specification 3/4.7.8 are proposed to be modified from a single ACTION applicable to degraded system operability, to a series of ACTIONs that more appropriately reflect the design, condition of the system, and the specific function of the inoperable component. A modification to the terminology used in the Specification is proposed, to clarify the required system configuration. The existing Specification lists the requirements for exhaust booster fans, main exhaust fans, and associated dampers separately, while the proposed Specification refers to these components in pairs, as exhaust ventilation trains. The proposed new actions provide for up to 12 hours to restore at least one ventilation system and one filter train to OPERABLE status when all three systems are inoperable, or be in HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours. This change will resolve the conditions that required granting of a notice of enforcement discretion (NOED) to allow

repair of an exhaust booster fan in May 1998 without entering Technical Specification 3.0.3 when all Fuel Handling Building exhaust air systems components were made inoperable. The proposed ACTION Statements use a similar terminology.

South Texas Project Unit 1 Licensee Event Reports 98-004, dated June 1, 1998 and 98-010, dated November 23, 1998, are associated with the NOED. The Fuel Handling Building HVAC ductwork has been modified in both units to facilitate maintenance on the booster fans. This modification will also satisfactorily resolve the issues specific to the NOED. However, the modification addresses only those issues that might be associated with the Fuel Handling Building exhaust booster fan. This proposed Technical Specification amendment is more generally applicable and includes the Control Room Envelope HVAC.

Administrative Changes

An administrative change is proposed to remove the asterisk footnotes at the bottom of 3/4 3-28, 3/4 7-19, and 3/4 7-20. These footnotes were only applicable during defined times and no longer serve any purpose in the Technical Specifications. The proposed change also removes the associated asterisks from the body of the Specifications.

Finally, Specification 3.9.12 is modified to use the same terminology as used in Specification 3.7.8 for consistency.

Discussion of Changes

The proposed changes are required to address the South Texas Project plant design, which incorporates unique, three-train design features. The changes to the ACTION Statements associated with Table 3.3-3 are required as a result of the need to align the action requirements of the actuation system with those of the system being actuated. The three train design was previously recognized in the system-specific Technical Specifications, however the design is not fully reflected in the actuation instrumentation table. This was a contributing factor to an event in 1995 that resulted in issuance of STP Unit 2 Licensee Event Report 95-007 dated November 15, 1995. Additionally, a change is proposed to permit operation in MODES 5 and 6 with the actuation instrumentation inoperable for an extended period without placing the Control Room Envelope HVAC System in operation. As an alternative, the proposed change administratively restricts operations to prevent conduct of operations that are the assumed precursor activities for the design basis events of the Control Room Ventilation System while in MODES 5 and 6.

The Fuel Handling Building HVAC and Control Room Envelope HVAC Systems each use the three train design to satisfy their design basis requirements. The existing Specifications recognize and partially address the design; however, they do not fully address operational considerations related to certain design features. The separate trains of ventilation in the Fuel Handling Building HVAC and Control Room Envelope HVAC Systems typically use common plenums or ductwork that must be opened to permit maintenance and required testing. The

proposed changes to the actions for each system Specification will permit this maintenance to be conducted without entering Technical Specification 3.0.3 requiring a shutdown of the unit.

The administrative change to remove the footnotes on pages 3/4 3-28, 3/4 7-19 and 3/4 7-20 removes extraneous material that no longer serves any purpose. It is proposed for removal at this time for convenience because the Specification is being changed for other reasons.

To clarify the proposed changes to the Specifications, changes to the Bases are proposed. These changes are included and will affect the Bases for Specifications 3/4.3.2, 3/4.7.7, 3/4.7.8, and 3/4.9.12.

The proposed changes to the required completion times for Specifications 3.7.7 and 3.7.8 are similar to those described in generic Technical Specification Task Force traveler #287 (TSTF-287). The NRC has approved TSTF-287, which provides some degree of precedent for the South Texas Project application.

The description and justification of TSTF-287 are provided below:

Description:

This change provides specific Conditions and Required Actions for room/barrier degradation (as opposed to ventilation train degradation). The Surveillances that test the integrity of the room/barrier require a positive or negative pressure limit to be satisfied in the area with one required ventilation train operating. While other Surveillances in the same specification test the operability of the ventilation train, these barrier surveillances ensure the envelope leak tightness is adequate to meet the design assumptions. However, there are no corresponding Conditions, Required Actions, or Completion Times associated with failure of these barriers Surveillances. Under existing specifications, LCO 3.0.3 must be entered (for two train inoperability). The proposed change would allow 24 hours (during operating MODES) to restore the capability to maintain proper pressure before requiring the unit to perform an orderly shutdown and also allows intermittent opening of the control room barrier under administrative control.

Justification:

Requiring the plant to enter LCO 3.0.3 when the ventilation envelope is not intact is excessive and, in the case of the FBACS or FSPVS, is not appropriate. Modeling these specifications on the Shield Building specification (NUREG-1431, LCO 3.6.1.9) for a Dual or Ice Condenser containment would provide consistency within the NUREG. NUREG-1431 Specification 3.6.1.9 allows 24 hours to restore the envelope to operable status before requiring an orderly shutdown from operating conditions (MODE 3 in 6 hours, MODE 5 in 36 hours). This would allow for routine repairs. The proposed change is acceptable because of the low probability of a DBA occurring during the 24 hour AOT. Furthermore, (modeling an allowance on the CIV allowance to intermittently open

penetrations that are otherwise required to be closed), an LCO Note is added to allow intermittent opening (e.g. as for entering and exiting) without entering the ACTIONs.

The South Texas Project compared its proposed change to TSTF-287. The comparison and conclusions are provided below.

1. Both the STP application and the TSTF extend the required completion time for situations where the Control Room Envelope or Fuel Handling Building HVAC cannot meet its design basis.

2. Both base acceptability of the change on the low probability of occurrence of a design basis accident coincident with the extended completion time.

3. The South Texas Project proposal differs from the TSTF in that it extends the time allowed for all of the ventilation systems being inoperable, regardless of cause. The TSTF limits the cause to the loss of the HVAC boundary. However, in either case the design basis consequences are comparable and the probability of an initiating event that would require the function is independent of the cause.

4. The required completion time proposed by the South Texas Project is 12 hours. The comparable time from the TSTF is 24 hours. As described in the submittal, the South Texas Project's proposed time is based on equipment cooling requirement assumptions modeled in the STP PRA.

5. The required action proposed by the South Texas Project for conditions when all trains of Control Room Envelope HVAC are inoperable includes suspension of movement of spent fuel, and crane operation with loads over the spent fuel pool. The TSTF has no comparable action. The South Texas Project's actions are based on plant specific evaluations.

6. The TSTF includes a note that allows intermittent opening of the barrier without entering the required action. The South Texas Project application does not incorporate the note because the South Texas Project does not believe it is required for compliance with the Technical Specification. The existing STP Technical Specifications, which are based on the "old" Westinghouse Standard Technical Specifications (NUREG-0452), have no comparable note. Routine opening of doors for entry into the Control Room Envelope and into the Fuel Handling Building is not regarded as a compliance issue within the current STP licensing basis. The South Texas Project incorporated wording from the TSTF Bases into the STP Bases with regard to control of opening the barriers.

   Conclusion regarding the TSTF:

   The South Texas Project believes the TSTF provides an applicable precedent for the review and approval of the South Texas Project application. The most significant difference between the TSTF and the South Texas Project application is that the TSTF is limited to

system inoperability caused by an inoperable boundary. The South Texas Project does not believe the cause of the inoperable condition is relevant. The probability of an initiating event that would require the function is independent of the cause for the system to be inoperable, and that initiating event probability is quite small. The probability that it would have adverse consequences for the operators or off-site is even smaller.

Safety Evaluation:

These proposed changes would permit South Texas to utilize the facility in a manner more appropriate for its design. The changes to the required action times associated with Table 3.3-3 align the allowed outage times with those that apply to the associated system. The alignment of allowed outage times does not represent a change in the safety of the facility because the inoperability of an actuated system is no more significant than inoperability of the actuating instrumentation system. The proposed change to Control Room Envelope HVAC configuration with an inoperable radiation monitoring channel will result in maintaining control room pressurization in all modes of operation and align the system to the actuated condition. This alignment with a filtered makeup supply will result in an increase in protection to the operators.

The postulated Loss of Coolant Accident (LOCA) has been qualitatively determined to be the design basis event resulting in the highest control room operator doses during power operations. As discussed in Attachment 4, the annual probability that a design basis LOCA would occur during the 12 hour allowed outage time for three trains of inoperable Control Room Envelope HVAC is bounded by 2.2×10^{-05}. This value includes all LOCA initiating events, including a Steam Generator Tube Rupture. This is not a significant increase in the probability that the design basis event would occur in the one hour allowed by Specification 3.0.3 before shutdown is initiated. Therefore, the change proposed to the actions of Specification 3/4.7.7 does not represent a significant challenge to plant safety because of the low probability of a design basis event during the brief allowed outage time. The allowed outage time will permit required maintenance and testing to be performed without unnecessarily violating the limits of the Specification by requiring actions be taken in accordance with Technical Specification 3.0.3. The ability to conduct maintenance and testing while in operation will improve overall system reliability and availability. Similarly, the allowance to continue operations in MODES 5 and 6 with an inoperable train while administrative controls prevent conduct of operations that could challenge the system does not represent a degradation in overall facility safety.

The South Texas Project Probabilistic Risk Analysis (PRA) models loss of Control Room Envelope HVAC as an initiating event. A loss of Control Room Envelope HVAC is assumed to lead to failure of the electronic components modeled in the reactor protection system, including the actuation relays and instrumentation. This, in turn, is assumed to lead to a plant trip signal with failure of automatic actuation for the systems necessary to respond to the trip. The PRA assumes that these events will not occur within the first 24 hours of failure of the Control Room Envelope HVAC system. The proposed 12 hour allowed outage time for all three Control Room Envelope HVAC trains inoperable provides adequate time (6 hours) to place the plant in HOT

STANDBY and prior to the 24 hours assumed in the PRA before the reactor protection system starts failing.

This request provides up to 12 hours to restore at least one train of Control Room Envelope HVAC to OPERABLE when all three trains are inoperable, or be in HOT STANDBY within the next 6 hours. Since the plant will be required to be in HOT STANDBY before the 24 hours with no HVAC cooling assumed to lead to a plant trip, this submittal will have no impact on the at-power core damage or Large Early Release Frequency.

Imposing the requirement in Technical Specification 3.7.7 MODES 1, 2, 3, and 4 proposed ACTION c. to suspend movement of spent fuel, and crane operations with loads over the spent fuel pool minimizes the potential for reactivity related accidents or fuel handling accidents. STP analyses credit the Fuel Handling Building ventilation filtration system and the Control Room Envelope ventilation filtration system for mitigating operator doses from a fuel handling accident in the Fuel Handling Building. The proposed action compensates for the degraded condition of the Control Room Envelope HVAC systems.

Adding the actions in Technical Specification 3.7.7 MODES 5 and 6 ACTION a. and b. to suspend all operations involving CORE ALTERATIONS, positive reactivity changes, movement of spent fuel, and crane operation with loads over the spent fuel pool makes the actions consistent. STP analyses credit Control Room Envelope ventilation filtration system for mitigating operator doses in a fuel handling accident. The proposed actions minimize the potential for a fuel handling accident to occur, thus making the unavailability of the Control Room Envelope HVAC systems in MODES 5 and 6 less significant.

Revising the applicability of ACTION b. in MODES 5 and 6 will add clarity to the specification and make it better reflect STP's three train design.

The proposed changes to Specification 3/4.7.8 are primarily directed at improving the definition of the system operability requirements that are applicable to the Fuel Handling Building HVAC system, while more accurately reflecting the system design, and allowing for maintenance on system components. The existing Specification differentiates between the exhaust booster fans, main exhaust fans, and associated dampers, while the proposed Specification will more appropriately refer to exhaust ventilation trains. The Fuel Handling Building HVAC design includes three exhaust booster fans and three main exhaust fans that can be utilized in multiple combinations to achieve successful design basis accident mitigation by the system. The system design includes a common plenum located at the suction of the sets of fans. This plenum permits fans from different trains of equipment to be utilized to compose a flow path that is adequate to perform the required safety functions.

The applicable design basis events for Specification 3/4.7.8 that the Fuel Handling Building HVAC system is designed to mitigate are the Fuel Handling Accident and Loss of Coolant Accident (LOCA). The required action to suspend movement of spent fuel and crane operations with loads over the spent fuel pool effectively remove the Fuel Handling Accident from

consideration during the allowed outage time. As discussed in Attachment 4, the likelihood of a Loss of Coolant event occurring during the 12 hour Allowed Outage Time is $1.3x10^{-05}$. Therefore, the change proposed to the actions of Specification 3/4.7.8 does not represent a significant challenge to plant safety because of the low probability of a design basis event during the brief allowed outage time. The proposed allowed outage time will permit the conduct of required maintenance and testing without unnecessarily violating the limits of the Specification or requiring actions be taken in accordance with Technical Specification 3.0.3. The ability to conduct maintenance and testing while in operation will improve overall system reliability and availability. This change will resolve the condition that required enforcement discretion to correct.

Control Room and Fuel Handling Building HVAC systems are not designed to mitigate core damage or to mitigate the effects of a large early release of radioactive contamination to the outside environment. Therefore, the allowed outage times proposed result in no change to Core Damage Frequency or Large Early Release Frequency.

The proposed change will provide a continued assurance that the Fuel Handling Building HVAC and Control Room Envelope HVAC Systems are OPERABLE and appropriately tested and maintained. Overall plant safety will not be significantly affected by the proposed changes and the proposed changes will not affect any safety limit applicable to the facility.

An administrative change is proposed to remove the asterisk footnotes at the bottom of pages 3/4 3-28, 3/4 7-19, and 3/4 7-20, as well as to remove the associated asterisks from the body of the Specifications. These changes will have no effect on plant operations, and removes extraneous material from the Specifications. Based on this evaluation, it is appropriate to delete these footnotes that are no longer applicable.

The proposed change to Specification 3.9.12 changes the terminology used in the Specification to maintain consistency throughout the Specifications and does not change any requirements. Therefore, the proposed change will have no safety impact.

Based on the evaluation above, it is appropriate to make the proposed changes to the Specifications.

ATTACHMENT 3

NO SIGNIFICANT HAZARDS DETERMINATION AND ENVIRONMENTAL ASSESSMENT

No Significant Hazards Determination:

In accordance with the criteria set forth in 10CFR50.92, the South Texas Project has evaluated these proposed Technical Specification changes and determined they do not represent a significant hazards consideration. The following is provided in support of this conclusion.

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

The proposed changes do not involve an increase in the probability or consequences of an accident previously evaluated. The proposed changes consist of:

a) Assuring that the Specifications define consistent allowed outage times when the same safety function is addressed in multiple Specifications,

b) Allowing a system to remain inoperable when appropriately restrictive administrative controls are placed on operations that could result in a challenge to the safety function of the system,

c) Providing an appropriately short Allowed Outage Time for inoperability needed to permit required maintenance and testing that affects all trains of a system,

d) Redefining system operability and associated actions in a manner consistent with the system design and function,

e) Aligning a system to the actuated condition on the loss of an actuation channel,

f) Using consistent terminology throughout the Specifications

The proposed changes do not represent significant increases in the probability or consequences of an accident because:

a) The alignment of the action times between actuating system and actuated system operability requirements do not affect probability or consequences since inoperability of the actuated system has the same effect as inoperability of the actuating system. Since the changes proposed to the actuating system action times will reflect those of the actuated system action times, no change to the allowed outage time applicable to the safety function addressed and fulfilled by both, will occur.

b) Administrative controls to prevent the conduct of operations that could lead to a challenge to the safety function of the system when the actuation system is inoperable, assures that the design bases functions of the system will not be challenged. Therefore, the probability or consequences of an event previously identified have not been significantly changed.

c) Allowing up to 12 hours to recover from the inoperability of all three trains of Control Room Envelope HVAC or two or more trains of Fuel Handling Building HVAC does not represent a significant change to the probability of an accident. The inoperability of the Fuel Handling Building HVAC systems is not identified as a precursor to a design basis event. The inoperability of the Control Room Envelope HVAC is not a precursor to any event previously evaluated in the UFSAR. With respect to the PRA analysis for Control Room Envelope HVAC, the allowed outage time provides sufficient time to restore Control Room Envelope HVAC to the rooms serving the Reactor Protection System before any detrimental effects would occur or to place the plant in MODE 3 if Control Room Envelope HVAC could not be restored. The low likelihood of a design basis accident during the limited period of allowed inoperability of these systems does not involve a significant increase in the consequences of an accident. The proposed required actions to suspend all operations involving movement of spent fuel, and crane operations with loads over the spent fuel pool reduce the potential for accident initiation during the allowed outage time.

d) The redefinition of plant operability requirements into functional trains rather than individual components does not affect the required system functional operability. Therefore, this change does not involve an increase in the probability or consequences of an accident previously identified.

e) The alignment of the Control Room Envelope HVAC System to the same configuration it would be placed in from an actuation of the inoperable radiation monitoring channel places the system in the design condition. This alignment would result in maintaining the control room envelope pressurized and increases the protection afforded to the operators.

f) The change in terminology does not change any requirements or actions in the Specification. Therefore this change does not involve an increase in the probability or consequences of any accident previously evaluated.

g) Revising the applicability of Technical Specification ACTION b. in MODES 5 and 6 will add clarity to the specification and make it better reflect STP's three train design. The clarification provides some additional assurance that the system will perform as assumed in the analyses.

Based on the above discussion, the individual changes do not involve an increase in the probability or consequences of any accident previously evaluated.

In addition to the changes proposed to controls over Control Room Envelope HVAC, Fuel Handling Building HVAC, and associated actuation logic, an administrative change is proposed to remove the footnotes at the bottom of pages 3/4 3-28, 3/4 7-19, and 3/4 7-20. Since the footnotes no longer have meaning or relevance to the operation of the facility, their removal does not increase the probability or consequences of any accident previously evaluated.

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

The proposed changes make the existing Specifications internally consistent, manually align a system to the actuated position, provide an alternative measure that assures a safety function which is unavailable is not required to perform, provide an extended period of allowance for all trains of a system to be inoperable, and redefines system operability to reflect its functional design. The proposed changes do not introduce any new equipment into the plant or significantly alter the manner in which existing equipment will be operated. The limited allowed outage time of three inoperable Control Room Envelope HVAC systems has no detrimental effect on the operation of the Reactor Protection System. The systems affected by the proposed changes are not identified as contributing causal factors in design basis accidents; their function is to assist in mitigation of accidents postulated to occur. Since the proposed changes do not allow activities that are significantly different from those presently allowed, no possibility exists for a new or different kind of accident from those previously evaluated.

In addition to the changes proposed to controls over Control Room Envelope HVAC, Fuel Handling Building HVAC, and associated actuation logic, an administrative change is proposed to remove the footnotes at the bottom of pages 3/4 3-28, 3/4 7-19, and 3/4 7-20. Since the footnotes no longer have meaning or relevance to the operation of the facility, their removal does not create the possibility of a new or different kind of accident from any accident previously evaluated

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

The proposed changes do not involve a significant reduction in a margin of safety because the ability of the Fuel Handling Building HVAC and Control Room Envelope HVAC Systems to perform their function will be maintained. The margin of safety is defined by the ability of the systems to limit the release of radioactive materials and limit exposures to operators following a postulated design basis accident. The only aspect of the proposed change that can be postulated to have any effect on a margin of safety is the proposed allowance for all trains of Control Room Envelope HVAC or Fuel Handling

Building HVAC to be inoperable for a limited period. The low probability of a design basis event that would require the system to perform its safety function during the limited period allowed by the proposed action assures that the change does not involve a significant change in a margin of safety. Therefore, the proposed changes do not significantly affect these operating restrictions and the margin of safety which support the ability to make and maintain the reactor in a safe shutdown and limit the release of radioactive material is not affected.

Sufficient time is allowed to restore Control Room Envelope HVAC to the rooms serving the Reactor Protection System before any detrimental effects would occur or to place the plant in MODE 3 if Control Room Envelope HVAC could not be restored.

Revising the applicability of Technical Specification 3.7.7 ACTION b. in MODES 5 and 6 will add clarity to the specification, make it better reflect STP's three train design and provide greater assurance that desired margins are maintained.

Suspending fuel movement and crane operations with loads over the spent fuel pool when all Fuel Handling Building or Control Room Envelope HVAC systems are inoperable prevents a Fuel Handling Accident from occurring, which maintains the margin of safety for this design event.

In addition to the changes described above, an administrative change is proposed to remove the footnotes at the bottom of pages 3/4 3-28, 3/4 7-19, and 3/4 7-20. Since these footnotes are no longer applicable to the facility, their removal cannot result in a reduction in a margin of safety.

ENVIRONMENTAL ASSESSMENT

This proposed Technical Specification Change has been evaluated against the criteria for and identification of licensing and regulatory actions requiring environmental assessment in accordance with 10CFR51.21. It has been determined that the proposed changes meet the criteria for categorical exclusion as provided for under 10CFR51.22 (c) (9). The following is a discussion of how the proposed Technical Specification Change meets the criteria for categorical exclusion.

10CFR51.22 (c) (9). Although the proposed change involves changes to requirements with respect to the use of a facility component,

(i) the proposed change involves no Significant Hazards Consideration (refer to the No Significant Hazards Consideration section of this Technical Specification Change Request),

(ii) there is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite since the proposed changes do not change the assumptions regarding generation of any radioactive effluents nor do they affect any of the permitted release paths, and

(iii) there is no significant increase in individual or cumulative occupational radiation exposure.

Accordingly, the proposed change meets the eligibility criteria for categorical exclusion set forth in 10CFR51.22 (c)(9). Based on the aforementioned and pursuant to 10CFR51.22 (b), no environmental assessment or environmental impact statement need be prepared in connection with issuance of an amendment to the Technical Specifications incorporating the proposed changes of this request.

ATTACHMENT 4

RISK-INFORMED EVALUATION PER REGULATORY GUIDES 1.174 AND 1.177

Regulatory Guides 1.174 and 1.177 provide guidance regarding the content needed in the preparation and review of risk-informed applications to change the Current Licensing Basis and the Technical Specifications, respectively. The five principles of the NRC's risk-informed philosophy and how they are addressed in the proposed change are provided below.

1. **The proposed change meets the current regulations.**

   The regulations pertinent to the Control Room Envelope HVAC and the Fuel Handling Building HVAC are 10CFR50 General Design Criterion (GDC) 19 regarding control room habitability and GDC 60 regarding releases of radioactive material to the environment, and 10CFR100 limits regarding postulated accident doses within the exclusion area boundary. The proposed change extends an allowed outage time for inoperable HVAC equipment, but it does not change the design or performance criteria for the equipment. As discussed in the risk-informed components of this application, the likelihood of a design basis accident occurring coincident with the anticipated infrequent use of the increased allowed outage time is extremely small. The South Texas Project does not propose to increase accident or normal operation radiation doses to either the control room operators or the public. Consequently, The South Texas Project concludes that the proposed change meets current regulatory requirements.

2. **Defense in depth is maintained.**

   Because the proposed changes to the Technical Specifications do not change the design or performance criteria for the affected equipment and the likelihood the equipment will be available if required is not significantly changed, the existing defense in depth is not significantly affected.

3. **Sufficient safety margins are maintained.**

   The changes do not change the design or performance criteria for the affected systems, so their safety margins are not changed. Adequate compensatory action will be imposed by the South Texas Project procedures to further assure that safety margins are maintained during the expected infrequent applications of the proposed provisions of the Technical Specifications.

   The Licensing Basis for the South Texas Project includes the Leak-Before-Break concept. This methodology has demonstrated that the deterministic Large Break Loss of Coolant Accident is not credible. Any large pipe rupture of the reactor coolant system would be preceded by leakage that is detectable by Control Room personnel using installed plant instrumentation. If a Control Room Envelope HVAC plenum were breached when reactor coolant system leakage was identified, the time between initiation of the leakage and the actual break would allow adequate time to restore the breach in the ventilation plenum and

Control Room Envelope HVAC operability. There may be other conditions for entering the action other than the need to breach a plenum. Maintenance activities on plant systems are evaluated for compatibility with current plant condition prior to commencement as a part of the station's work control process. If warranted, appropriate response plans would be evaluated for placing the plant in a safe condition for dealing with a potentially escalating situation.

In addition, suspending fuel movement and crane operations with loads over the spent fuel pool when all Fuel Handling Building or Control Room Envelope HVAC systems are inoperable prevents a Fuel Handling Accident from occurring, which maintains the margin of safety for this design event.

4. **Proposed increases in risk, and their cumulative effect, are small and do not cause the NRC Safety Goals to be exceeded.**

   As described in more detail below, there is no increase in Core Damage Frequency or Large Early Release Frequency as a result of the proposed changes to the Technical Specifications.

   The South Texas Project believes the likelihood the affected ventilation systems will be available if required is essentially unchanged. Although not quantified, the South Texas Project's judgement is that the positive effects of more effective maintenance that could result from the change would offset any slight increase in risk from entering the action statement.

5. **Performance-based implementation and monitoring strategies are proposed that address uncertainties in analysis models and data and provide for timely feedback and corrective action.**

   The South Texas Project's current corrective action program is adequate to identify performance problems that might arise with respect to either the Control Room Envelope HVAC or the Fuel Handling Building HVAC systems. In addition, the South Texas Project routinely calculates the configuration risk associated with maintenance activities. Control Room Envelope HVAC configuration is an input into that determination.

Regulatory Guide 1.177 Evaluation

RG 1.177 lists the attributes that should be addressed in submittals requesting risk-informed Technical Specification changes. These attributes and how the proposed change to the required completion time for Specifications 3.7.7 and 3.7.8 has been considered are provided below. (Note that the proposed changes to the required action for inoperable actuation instrumentation and the administrative changes to the Technical Specifications in this submittal are not risk-informed.)

1. **A description of the TS changes being proposed and the reasons for seeking the changes**

   The proposed changes will modify the requirements applicable when one or more trains of Fuel Handling Building (FHB) Exhaust Air or Control Room (CR) Makeup and Cleanup Filtration are inoperable. The separate trains of ventilation in the Fuel Handling Building HVAC and Control Room Envelope HVAC Systems typically use common plenums or ductwork that must be opened to permit maintenance and required testing. The proposed changes will eliminate the need to enter Technical Specification 3.0.3 when multiple trains of these systems are inoperable. Specific ACTIONs are proposed to address these conditions.

   The changes are described in more complete detail in the Description of Changes attachment above.

2. **A description of the process used to arrive at the proposed changes**

   As described in #1, the common plenum design of both systems compelled the South Texas Project to pursue a change to the Technical Specifications that would facilitate removing multiple trains of ventilation from service simultaneously without entering Specification 3.0.3. The South Texas Project chose an allowed outage time that provided sufficient time to conduct necessary maintenance and which would not impose significant risk on the public or the plant operators.

   The requests for Enforcement Discretion that were required to replace the Fuel Handling Building Exhaust Booster Fans were also integral to the process. The evaluations performed during the development of the requests provided the South Texas Project
   with substantial insight regarding the usefulness of the proposed change and the kinds of compensatory action that might be used in conjunction with the entry into the proposed action.

3. **Traditional engineering evaluations performed**

   Control Room Envelope Ventilation

   The safety analysis demonstrates that approximately 85% of the dose to the Control Room during a Loss of Coolant Accident is due to containment leakage. The containment leakage rates assumed in the safety analysis are much higher than the performance of the South Texas Project containment, which is essentially leak-tight. The safety analysis also assumes that the containment airborne iodine inventory release to be the flashed portion of the total primary coolant iodine inventory based upon a preexisting iodine spike level of 60 Ci/g dose equivalent I-131. The additional

probability of this preexisting condition during the limited 12 hour allowed outage time is extremely small.

For configurations where the common duct/plenum portions of the Control Room ventilation systems are opened, the effects of a Main Steam Line Break or a Steam Generator Tube Rupture on Control Room dose can be mitigated by the relatively short time required to restore the ventilation plenum and Control Room Envelope HVAC operability. Prompt closure will be facilitated by pre-job planning and timely communications wth the the Control Room.

For the Steam Generator Tube Rupture event, a potential tube rupture would most likely be preceded by increased leakage in the steam generator. Activity in the steam and power conversion system is subject to continual surveillance. The South Texas Project Technical Specifications only allows 150 gallons per day of primary-to-secondary leakage through any one steam generator before plant shutdown is required. Maintenance activities on plant systems are evaluated for compatibility with current plant condition prior to commencement as a part of the station's work control process. Since it would be inappropriate to perform maintenance activities that jeopardize the availability of the Control Room Envelope HVAC when activities are in progress to respond to increased steam generator leakage indicative of a rapidly degrading condition, the potential of a tube rupture during the proposed 12 hour outage time is not credible.

For the Main Steam Line Break event, the radiological concern is a preexisting steam generator tube leak. As stated above, upon an increased trend in primary-to-secondary leakage that is indicative of a rapidly degrading condition, preparations are made for plant shutdown. Again, normal processes of evaluating a plant maintenance activity for compatibility with current plant conditions would not allow maintenance on systems critical to such an event, unless the maintenance activity was required to restore system components to service.

As discussed earlier, the Fuel Handling Accident is effectively eliminated from consideration by suspending activities involving the movement of spent fuel and crane operations over the spent fuel pool when the Control Room Envelope HVAC systems are inoperable.

Fuel Handling Building HVAC

During the Loss of Coolant Accident, the concern in the Fuel Handling Building is the leakage of Reactor Containment Building emergency sump water from the Emergency Core Cooling System in the lower regions of the building. Leak-Before-Break methods show that LOCA would have detectable precursor leakage. Should the Fuel Handling Building HVAC common plenum be breached for maintenance, detection of

this leakage provides adequate warning time to restore the ventilation plenum and Fuel Handling Building HVAC operability. As discussed earlier, a modification to facilitate closure of the Fuel Handling Building plenum has been installed in both STP units. For the anticipated situations involving access to a single booster fan, the modification will preclude the need to apply the proposed Technical Specification action. For other conditions for entering the action other than the need to breach a plenum, appropriate response plans would be evaluated for placing the plant in a safe condition for dealing with a potentially escalating situation. An evaluation of current plant conditions, prior to commencing maintenance activities, and an evaluation of the need for compensatory measures or action plans, are part of the normal work control process at the station.

In addition, it would take a minimum of 16 minutes for the Refueling Water Storage Tank to empty and the Emergency Core Cooling System to go into the recirculation mode by taking suction from the containment emergency sump. This also provides additional time to restore the ventilation plenum and Fuel Handling Building HVAC operability. Total Emergency Core Cooling System leakage is monitored periodically. Three redundant Emergency Core Cooling Systems are available during recirculation.

Another factor minimizing dose to the outside environment and providing time to restore Fuel Handling Building HVAC operability in configurations where the flow has been secured is that the lack of airflow would result in an extended period of time before airborne contaminants reach the upper levels of the Fuel Handling Building. The safety analysis assumes that 95.5% of the iodine released to the Fuel Handling Building is in the elemental form. A large portion of this would plate out in the lower levels of the Fuel Handling Building during leakage from the Emergency Core Cooling System.

As discussed earlier, the Fuel Handling Accident is effectively eliminated from consideration by suspending activities involving the movement of spent fuel and crane operations over the spent fuel pool when the Fuel Handling Building HVAC systems are inoperable.

Summary

A Fuel Handling Accident is prevented during maintenance to restore a Control Room Envelope HVAC or a Fuel Handling Building HVAC fan to OPERABLE status by administrative controls or by South Texas Project's Technical Specifications, which will not allow for operations leading to a potential Fuel Handling Accident during this maintenance condition. The annual probability that a Loss of Coolant Accident would occur during the proposed 12 hour allowed outage time is 2.2E-05. This value includes all LOCA initiating events, including a Steam Generator Tube Rupture. The

annual probability that a Main Steam Line Break would occur during the proposed 12 hour allowed outage time is 1.0E-05. This value includes Steam Line Breaks upstream and downstream of the main steam isolation valves. In the extremely unlikely event that these events would occur when all three trains of Control Room Envelope HVAC or Fuel Handling Building HVAC were inoperable, event precursors would allow time to restore system operability. The Steam Generator Tube Rupture event during the proposed 12 hour allowed outage time is not considered a credible event for reasons stated previously.

4. Changes made to the PRA for use in the TS change evaluation

No changes to the PRA were required to perform the evaluation for this proposed change.

5. Review of the applicability and quality of the PRA models for TS evaluations

The STP PRA is of high quality and has been used for previous changes to the STP Technical Specifications. The NRC has reviewed and approved several applications of the STP PRA, including extended allowed outage times for Standby Diesel Generators and Graded Quality Assurance.

However, as discussed in the response to #8 below, relatively little use was made of the STP PRA in performing this evaluation.

6. Discussion of the risk measures used in evaluating the changes

The primary risk measure applied was the application of the initiating event frequency for loss of coolant type events. The evaluations for the Control Room Envelope HVAC and the Fuel Handling Building HVAC are provided below.

Control Room Envelope HVAC

The annual probability that this design basis event would occur during the 12 hour allowed outage time for the trains of inoperable Control Room Envelope HVAC is determined by calculating the frequency of occurrence for all Loss of Coolant initiating events (including the steam generator tube rupture event) and multiplying by the likelihood of being in the configuration (12/8760). From NUREG/CR-5750 (Rates of Initiating Events at U.S. Nuclear Power Plants 1987-1995, USNRC, February 1999), the sum of all Loss of Coolant initiating events including a Steam Generator Tube Rupture is 1.6×10^{-2} per reactor critical year. Multiplying by the allowed outage time fraction (12/8760), the likelihood of a Loss of Coolant event occurring during the 12 hour Allowed Outage Time is 2.2×10^{-05}.

Fuel Handling Building HVAC

The annual probability that this design basis event would occur during the 12 hour allowed outage time for the trains of inoperable Control Room Envelope HVAC is determined by calculating the frequency of occurrence for all Loss of Coolant initiating events (without the steam generator tube rupture event) and multiplying by the likelihood of being in the configuration (12/8760). From NUREG/CR-5750 (Rates of Initiating Events at U.S. Nuclear Power Plants 1987-1995, USNRC, February 1999), the sum of all Loss of Coolant initiating events is 9.4×10^{-3} per reactor critical year. Multiplying by the allowed outage time fraction (12/8760), the likelihood of a Loss of Coolant event occurring during the 12 hour Allowed Outage Time is 1.3×10^{-05}.

7. Data developed and used in addition to the plant's PRA database

Evaluation of the proposed change did not require the development of additional data. As described above, the evaluation applies the LOCA initiating event rate from NUREG/CR-5750.

8. Summary of the risk measures calculated including intermediate results

Control Room Envelope HVAC

The South Texas Project Probabilistic Risk Analysis (PRA) models loss of Control Room Envelope HVAC (CRE HVAC) as an initiating event and does not credit the CRE HVAC for post-accident/transient analysis.

As an initiating event, failure of the Control Room Envelope HVAC system is assumed to lead to failure of the electronic components modeled in the reactor protection system, including the actuation relays and instrumentation. This, in turn, leads to a plant trip signal with failure of automatic actuation for the systems necessary to respond to the trip. Loss of Control Room Envelope HVAC and failure to recover within 24 hours is assumed to result in a plant trip with failure of all actuation signals.

This request provides up to 12 hours to restore at least one train of Control Room Envelope HVAC to OPERABLE when all three trains are inoperable, or be in HOT STANDBY within the next 6 hours. Since the plant will be required to be in HOT STANDBY before the 24 hours with no HVAC cooling assumed to lead to a plant trip, this submittal will have no impact on the at-power core damage or Large Early Release Frequency.

#6 above provides the probability of occurrence of a design basis event coincident with the plant being in the proposed action statement for Control Room Envelope HVAC.

Fuel Handling Building HVAC

The PRA does not credit the Fuel Handling Building HVAC System for mitigating core damage accidents. Consequently, there is no calculated effect on Core Damage Frequency or Large Early Release Frequency by the proposed changes to the Fuel Handling Building HVAC Technical Specification.

Overall Conclusions:

The proposed changes to the Technical Specifications have no effect on the Core Damage Frequency or the Large Early Release Frequency.

9. Sensitivity and uncertainty analyses performed

Because of the limited application of the PRA for the evaluation of this proposed change, no sensitivity or uncertainty analyses were needed.

10. Summary of the risk impacts of the proposed changes and any compensating actions proposed

The design basis accidents that the Control Room Envelope HVAC is designed to mitigate are:

- Fuel Handling Accident in the Fuel Handling Building or the Reactor Containment Building
- Loss of Coolant Accident
- Main Steam Line Break
- Steam Generator Tube Rupture

The Fuel Handling Accident can be precluded from consideration during the time three trains of Control Room Envelope HVAC are made inoperable by administratively suspending all operations involving CORE ALTERATIONS, movement of spent fuel, and crane operation with loads over the spent fuel pool. The required actions are incorporated into the Technical Specifications.

Containment Spray can be used to reduce the potential for radioactive material release under accident conditions. For MODES 1, 2, 3, and 4, procedures will preclude intentionally removing multiple trains of Control Room Envelope HVAC from service if Containment Spray is not functional or intentionally making a train of

Containment Spray unavailable when multiple trains of of Control Room Envelope HVAC are out of service.

The design basis accidents that the Fuel Handling Building HVAC is designed to mitigate are:

- Fuel Handling Accident in the Fuel Handling Building
- Loss of Coolant Accident

The effects of a Fuel Handling Accident are precluded by suspending all operations involving movement of fuel within the spent fuel pool or crane operations with loads over the spent fuel pool with no Fuel Handling Building air filter trains OPERABLE required by Specification 3/4.9.12. Procedures will impose this action regardless of whether the Technical Specification action was a planned entry or an emergent condition.

Compensatory Action Applicable to Both Specifications

- STP will not intentionally enter the action for multiple trains out of service for Specification 3.7.7 and Specification 3.7.8 simultaneously.

- Procedures will require appropriate communications between the control room and person(s) opening the ventilation system or breaching the boundary integrity for extended periods of time to assure that the opening can be closed promptly if necessary.

11. A tabulation of the outage configurations that could threaten the integrity of the safety functions of the subject equipment and that are, or will be, prohibited by TS or plant procedures (Tier 2).

See the response to #10.

12. A description of the capability to perform a contemporaneous assessment of the overall impact on safety of proposed plant configurations, including an explanation of how these tools will be used to ensure that risk-significant plant configurations will not be entered and that appropriate actions will be taken when unforeseen events put the plant in a risk-significant configuration (Tier 3).

The STP Configuration Risk Management Program and the STP Risk ASsessment CALcuator (RASCAL) are routinely used to assess the risk significance of planned plant configurations. These tools apply results derived from the STP PRA to quantify the risk associated with planned changes to plant configurations on a weekly basis (and occasionally more frequently). These tools and the compensatory actions

described earlier will be effective for managing the configuration changes associated with the Control Room Envelope HVAC since it is modeled in the PRA as a potential initiator.

As described above, the Fuel Handling Building HVAC is not modeled in the PRA. From the perspective of Core Damage Frequency or Large Early Release Frequency, changes in the configuration of the Fuel Handling Building HVAC are not risk significant. However, the South Texas Project recognizes the importance of managing the configuration of this system since it clearly affects the potential for off-site release under accident conditions. The compensatory actions described earlier will be imposed by STP procedures.

13. **A marked up copy of the relevant TS and bases. The level of detail provided in the TS Bases should include adequate information to provide the technical basis for the revised AOT or STI.**

    See Attachments 5, 6, 7 and 8.

14. **All other documentation required to be submitted with a license amendment request.**

    See Attachments 1, 2, and 3

ATTACHMENT 5

ANNOTATED TECHNICAL SPECIFICATION PAGES

NO CHANGES THIS PAGE – FOR COMPLETENESS ONLY

TABLE 3.3-3 (Continued)

ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

FUNCTIONAL UNIT	TOTAL NO. OF CHANNELS	CHANNELS TO TRIP	MINIMUM CHANNELS OPERABLE	APPLICABLE MODES	ACTION
10. Control Room Ventilation					
a. Manual Initiation	3(1/train)	2(1/train)	3(1/train)	All	27
b. Safety Injection	See Item 1. above for all Safety Injection initiating functions and requirements.				
c. Automatic Actuation Logic and Actuation Relays	3	2	3	All	27
d. Control Room Intake Air Radioactivity - High	2	1	2	All	28
e. Loss of Power	See Item 8. above for all Loss of Power initiating functions and requirements.				
11. FHB HVAC					
a. Manual Initiation	3(1/train)	2(1/train)	3(1/train)	1, 2, 3, 4 or with irradiated fuel in spent fuel pool	29, 30
b. Automatic Actuation Logic and Actuation Relays	3	2	3	1, 2, 3, 4 or with irradiated fuel in spent fuel pool	29, 30
c. Safety Injection	See Item 1. above for all Safety Injection initiating functions and requirements.				
d. Spent Fuel Pool Exhaust Radioactivity - High	2	1	2	With irradiated fuel in spent fuel pool	30

TABLE 3.3-3 (Continued)

ACTION STATEMENTS (Continued)

ACTION 26- With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, declare the affected Auxiliary Feedwater Pump inoperable and take ACTION required by Specification 3.7.1.2.

ACTION 27- ~~MODES 1, 2, 3, 4: With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 48 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.~~

~~MODES 5 and 6: With the number of OPERABLE channels less than the Minimum Channels OPERABLE requirement, restore the inoperable Channel to OPERABLE status within 48 hours or initiate and maintain operation of the Control Room Makeup and Cleanup Filtration System (at 100% capacity) in the recirculation and makeup filtration mode.~~
For an inoperable channel, declare its associated ventilation train inoperable and apply the actions of Specification 3.7.7.

ACTION 28- ~~MODES 1, 2, 3, 4: With the number of OPERABLE channels less than the Minimum Channels OPERABLE requirement, within 1 hour isolate the Control Room Envelope and maintain operation of the ventilation system in the filtered recirculation mode.~~

~~MODES 5 and 6:~~ With the number of OPERABLE channels less than the Minimum Channels OPERABLE requirement, within 1 hour initiate and maintain operation of the Control Room Makeup and Cleanup Filtration System (at 100% capacity) in the recirculation and makeup filtration mode.

ACTION 29~~*~~- ~~MODES 1, 2, 3, 4: With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, restore the inoperable channel to OPERABLE status within 48 hours or either initiate and maintain operation of the FHB exhaust air filtration system (at 100% capacity) or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.~~

For an inoperable channel, declare its associated ventilation train inoperable and apply the actions of Specification 3.7.7.

ACTION 30- With irradiated fuel in the spent fuel pool: With the number of OPERABLE channels less than the Minimum Channels OPERABLE requirement, fuel movement within the spent fuel pool or crane operation with loads over the spent fuel pool may proceed provided the FHB exhaust air filtration system is in operation and discharging through at least one train of HEPA filters and charcoal adsorbers.

~~*With 2 or more FHB Exhaust Air actuation channels inoperable, restore the FHB Exhaust Air actuation channels to a condition that satisfies the ACTION statement above within 8 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN in the following 30 hours. The exception is effective until July 14, 1999 for Unit 2 only. The exception may be used twice during this time period.~~

PLANT SYSTEMS

3/4.7.7 CONTROL ROOM MAKEUP AND CLEANUP FILTRATION SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.7 Three independent Control Room Makeup and Cleanup Filtration Systems shall be OPERABLE.

APPLICABILITY: All MODES.

ACTION:

MODES 1, 2, 3, and 4:

a. With one Control Room Makeup and Cleanup Filtration System inoperable, restore the inoperable system to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

b. With two Control Room Makeup and Cleanup Filtration Systems inoperable, restore at least two systems to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

c. With three Control Room Makeup and Cleanup Filtration Systems inoperable, suspend all operations involving movement of spent fuel, and crane operation with loads over the spent fuel pool, and restore at least one system to OPERABLE status with 12 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

MODES 5 and 6:

a. With one Control Room Makeup and Cleanup Filtration System inoperable, restore the inoperable status within 7 days or initiate and maintain operation of the remaining OPERABLE Control Room Makeup and Cleanup Filtration Systems in the recirculation and makeup air filtration mode, or suspend all operations involving CORE ALTERATIONS, positive reactivity changes, movement of spent fuel, and crane operation with loads over the spent fuel pool.

b. With ~~two~~ more than one Control Room Makeup and Cleanup Filtration Systems inoperable, or with the OPERABLE Control Room Makeup and Cleanup Filtration Systems, required to be in the recirculation and makeup air filtration mode by ACTION a., not capable of being powered by an OPERABLE emergency power source, suspend all operations involving CORE ALTERATIONS, ~~or~~ positive reactivity changes, movement of spent fuel, and crane operations with loads over the spent fuel pool.

SURVEILLANCE REQUIREMENTS

4.7.7 Each Control Room Makeup and Cleanup Filtration System shall be demonstrated OPERABLE:

a. At least once per 12 hours by verifying that the control room air temperature is less than or equal to 78°F;

b. At least once per 92 days on a STAGGERED TEST BASIS by initiating, from the control room, flow through the HEPA filters and charcoal adsorbers of the makeup and cleanup air filter units and verifying that the system operates for at least 10 continuous hours with the makeup filter unit heaters operating;

PLANT SYSTEMS

3/4.7.8 FUEL HANDLING BUILDING (FHB) EXHAUST AIR SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.8 The FHB Exhaust Air System comprised of the following components shall be OPERABLE.

a. Two independent exhaust air filter trains, and

b. Three ~~independent~~ exhaust ~~booster fans~~ ventilation trains.

~~c. Three independent main exhaust fans, and~~

~~d. Associated dampers~~.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION~~:~~*

~~With less than the above FHB Exhaust Air System components OPERABLE but with at least one FHB exhaust air filter train, two FHB exhaust booster fans, two FHB main exhaust fans and associated dampers OPERABLE, restore the inoperable system to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.~~

a. With one FHB exhaust air filter train inoperable, restore the inoperable filter train to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN in the following 30 hours.

b. With two FHB exhaust air filter trains inoperable, restore at least one inoperable filter train to OPERABLE status within 12 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN in the following 30 hours.

c. With one FHB exhaust ventilation train inoperable, restore the inoperable exhaust ventilation train to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN in the following 30 hours.

d. With more than one FHB exhaust ventilation train inoperable, restore at least two exhaust ventilation trains to OPERABLE status within 12 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN in the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.7.8 The Fuel Handling Building Exhaust Air System shall be demonstrated OPERABLE:

a. At least once per 31 days on a STAGGERED TEST BASIS by initiating, from the control room, flow through the HEPA filters and charcoal adsorbers and verifying that the system operates for at least 10 continuous hours with the heaters operating with two of the three exhaust booster fans and two of the three main exhaust fans operating to maintain adequate air flow rate;

b. At least once per 18 months and (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following painting, fire, or chemical release in any ventilation zone communicating with the system by:

1) Verifying that the cleanup system satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 0.05% for HEPA filter banks and 0.10% for charcoal adsorber banks and uses the test procedure guidance in Regulatory Positions C.5.a, C.5.c, and C.5.d of Regulatory Guide 1.52, Revision 2, March 1978, and the system flow rate is 29,000 cfm ± 10%;

2) Verifying, within 31 days after removal, that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52,

~~*With ALL FHB Exhaust Air System components inoperable, restore the FHB Exhaust Air System to a condition that satisfies the ACTION statement above within 8 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN in the following 30 hours. This exception is effective until July 14, 1999 for Unit 2 only. The exception may be used twice during this time period.~~

SURVEILLANCE REQUIREMENTS (Continued)

Revision 2, March 1978, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978, for a methyl iodide penetration of less than 1.0% when tested at a temperature of 30°C and a relative humidity of 70%; and

3) Verifying a system flow rate of 29,000 cfm ± 10% during system operation with two of the three exhaust booster fans and two of the three main exhaust fans operating when tested in accordance with ANSI N510-1980. All combinations of two exhaust booster fans and two main exhaust fans shall be tested.

c. After every 720 hours of charcoal adsorber operation, by verifying, within 31 days after removal, that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978, for a methyl iodide penetration of less than 1.0% when tested at a temperature of 30°C and a relative humidity of 70%;

d. At least once per 18 months by:

1) Verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks is less than 6 inches Water Gauge while operating the system at a flow rate of 29,000 cfm ± 10%,

2) Verifying that the system starts on High Radiation and Safety Injection test signals and directs flow through the HEPA filters and charcoal adsorbers,

3) Verifying that the system maintains the FHB at a negative pressure of greater than or equal to 1/8 inch Water Gauge relative to the outside atmosphere, and

4) Verifying that the heaters dissipate 38 + 2.3 kW when tested in accordance with ANSI N510-1980.~~*~~

e. After each complete or partial replacement of a HEPA filter bank, by verifying that the HEPA filter bank satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 0.05% in accordance with ANSI N510-1980 for a DOP test aerosol while operating the system at a flow rate of 29,000 cfm ± 10%; and

f. After each complete or partial replacement of a charcoal adsorber bank, by verifying that the charcoal adsorber bank satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 0.10% in accordance with ANSI N510-1980 for a halogenated hydrocarbon refrigerant test gas while operating the system at a flow rate of 29,000 cfm ± 10%.

~~*During the first six weeks after March 28, 1989, testing will be required for both 50 kW and 38 kW heaters.~~

REFUELING OPERATIONS

3/4.9.12 FUEL HANDLING BUILDING EXHAUST AIR SYSTEM

LIMITING CONDITION FOR OPERATION

3.9.12 The FHB Exhaust Air System1 comprised of the following components shall be OPERABLE:

a. Two exhaust air filter trains,

b. Two ~~of three~~ exhaust ~~booster fans~~ ventilation trains

~~c. Two of three main exhaust fans, and~~

~~d. Associated dampers.~~

APPLICABILITY: Whenever irradiated fuel is in the spent fuel pool.

ACTION:

a. With less than the above FHB Exhaust Air System components OPERABLE but with at least one FHB exhaust air filter train, one FHB exhaust ventilation train ~~booster fan, one FHB main exhaust fan,~~ and associated dampers OPERABLE, fuel movement within the spent fuel pool or crane operation with loads over the spent fuel pool may proceed provided the OPERABLE FHB Exhaust Air System components are capable of being powered from an OPERABLE emergency power source and are in operation and discharging through at least one train of HEPA filters and charcoal adsorbers.

b. With no FHB exhaust air filter train OPERABLE, suspend all operations involving movement of fuel within the spent fuel pool or crane operation with loads over the spent fuel pool.

c. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.9.12 The above required FHB Exhaust Air Systems shall be demonstrated OPERABLE:

a. At least once per 31 days on a STAGGERED TEST BASIS by initiating, from the control room, flow through the HEPA filters and charcoal adsorbers and verifying that the system operates for at least 10 continuous hours with the heaters operating with the operable exhaust booster fans and the operable main exhaust fans operating to maintain adequate air flow rate;

1At least one FHB exhaust air filter train, one FHB exhaust booster fan, and one FHB main exhaust fan are capable of being powered from an OPERABLE onsite emergency power source.

ATTACHMENT 6

REVISED TECHNICAL SPECIFICATION PAGES

TABLE 3.3-3 (Continued)

ACTION STATEMENTS (Continued)

ACTION 26- With the number of OPERABLE channels one less than the Minimum Channels OPERABLE requirement, declare the affected Auxiliary Feedwater Pump inoperable and take ACTION required by Specification 3.7.1.2.

ACTION 27- For an inoperable channel, declare its associated ventilation train inoperable and apply the actions of Specification 3.7.7.

ACTION 28- With the number of OPERABLE channels less than the Minimum Channels OPERABLE requirement, within 1 hour initiate and maintain operation of the Control Room Makeup and Cleanup Filtration System (at 100% capacity) in the recirculation and makeup filtration mode.

ACTION 29- For an inoperable channel, declare its associated ventilation train inoperable and apply the actions of Specification 3.7.7.

ACTION 30- With irradiated fuel in the spent fuel pool: With the number of OPERABLE channels less than the Minimum Channels OPERABLE requirement, fuel movement within the spent fuel pool or crane operation with loads over the spent fuel pool may proceed provided the FHB exhaust air filtration system is in operation and discharging through at least one train of HEPA filters and charcoal adsorbers.

PLANT SYSTEMS

3/4.7.7 CONTROL ROOM MAKEUP AND CLEANUP FILTRATION SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.7 Three independent Control Room Makeup and Cleanup Filtration Systems shall be OPERABLE.

APPLICABILITY: All MODES.

ACTION:

MODES 1, 2, 3, and 4:

a. With one Control Room Makeup and Cleanup Filtration System inoperable, restore the inoperable system to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

b. With two Control Room Makeup and Cleanup Filtration Systems inoperable, restore at least two systems to OPERABLE status within 72 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

c. With three Control Room Makeup and Cleanup Filtration Systems inoperable, suspend all operations involving movement of spent fuel, and crane operation with loads over the spent fuel pool, and restore at least one system to OPERABLE status with 12 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

MODES 5 and 6:

a. With one Control Room Makeup and Cleanup Filtration System inoperable, restore the inoperable status within 7 days or initiate and maintain operation of the remaining OPERABLE Control Room Makeup and Cleanup Filtration Systems in the recirculation and makeup air filtration mode, or suspend all operations involving CORE ALTERATIONS, positive reactivity changes, movement of spent fuel, and crane operation with loads over the spent fuel pool.

b. With more than one Control Room Makeup and Cleanup Filtration Systems inoperable, or with the OPERABLE Control Room Makeup and Cleanup Filtration Systems, required to be in the recirculation and makeup air filtration mode by ACTION a., not capable of being powered by an OPERABLE emergency power source, suspend all operations involving CORE ALTERATIONS, positive reactivity changes, movement of spent fuel, and crane operations with loads over the spent fuel pool.

SURVEILLANCE REQUIREMENTS

4.7.7 Each Control Room Makeup and Cleanup Filtration System shall be demonstrated OPERABLE:

a. At least once per 12 hours by verifying that the control room air temperature is less than or equal to 78°F;

b. At least once per 92 days on a STAGGERED TEST BASIS by initiating, from the control room, flow through the HEPA filters and charcoal adsorbers of the makeup and cleanup air filter units and verifying that the system operates for at least 10 continuous hours with the makeup filter unit heaters operating;

PLANT SYSTEMS

3/4.7.8 FUEL HANDLING BUILDING (FHB) EXHAUST AIR SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.8 The FHB Exhaust Air System comprised of the following components shall be OPERABLE.

a. Two independent exhaust air filter trains, and

b. Three exhaust ventilation trains.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

a. With one FHB exhaust air filter train inoperable, restore the inoperable filter train to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN in the following 30 hours.

b. With two FHB exhaust air filter trains inoperable, restore at least one inoperable filter train to OPERABLE status within 12 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN in the following 30 hours.

c. With one FHB exhaust ventilation train inoperable, restore the inoperable exhaust ventilation train to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN in the following 30 hours.

d. With more than one FHB exhaust ventilation train inoperable, restore at least two exhaust ventilation trains to OPERABLE status within 12 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN in the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.7.8 The Fuel Handling Building Exhaust Air System shall be demonstrated OPERABLE:

a. At least once per 31 days on a STAGGERED TEST BASIS by initiating, from the control room, flow through the HEPA filters and charcoal adsorbers and verifying that the system operates for at least 10 continuous hours with the heaters operating with two of the three exhaust booster fans and two of the three main exhaust fans operating to maintain adequate air flow rate;

b. At least once per 18 months and (1) after any structural maintenance on the HEPA filter or charcoal adsorber housings, or (2) following painting, fire, or chemical release in any ventilation zone communicating with the system by:

1) Verifying that the cleanup system satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 0.05% for HEPA filter banks and 0.10% for charcoal adsorber banks and uses the test procedure guidance in Regulatory Positions C.5.a, C.5.c, and C.5.d of Regulatory Guide 1.52, Revision 2, March 1978, and the system flow rate is 29,000 cfm ± 10%;

2) Verifying, within 31 days after removal, that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52,

Revision 2, March 1978, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978, for a methyl iodide penetration of less than 1.0% when tested at a temperature of 30°C and a relative humidity of 70%; and

3) Verifying a system flow rate of 29,000 cfm ± 10% during system operation with two of the three exhaust booster fans and two of the three main exhaust fans operating when tested in accordance with ANSI N510-1980. All combinations of two exhaust booster fans and two main exhaust fans shall be tested.

c. After every 720 hours of charcoal adsorber operation, by verifying, within 31 days after removal, that a laboratory analysis of a representative carbon sample obtained in accordance with Regulatory Position C.6.b of Regulatory Guide 1.52, Revision 2, March 1978, meets the laboratory testing criteria of Regulatory Position C.6.a of Regulatory Guide 1.52, Revision 2, March 1978, for a methyl iodide penetration of less than 1.0% when tested at a temperature of 30°C and a relative humidity of 70%;

d. At least once per 18 months by:

1) Verifying that the pressure drop across the combined HEPA filters and charcoal adsorber banks is less than 6 inches Water Gauge while operating the system at a flow rate of 29,000 cfm ± 10%,

2) Verifying that the system starts on High Radiation and Safety Injection test signals and directs flow through the HEPA filters and charcoal adsorbers,

3) Verifying that the system maintains the FHB at a negative pressure of greater than or equal to 1/8 inch Water Gauge relative to the outside atmosphere, and

4) Verifying that the heaters dissipate 38 + 2.3 kW when tested in accordance with ANSI N510-1980.

e. After each complete or partial replacement of a HEPA filter bank, by verifying that the HEPA filter bank satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 0.05% in accordance with ANSI N510-1980 for a DOP test aerosol while operating the system at a flow rate of 29,000 cfm ± 10%; and

f. After each complete or partial replacement of a charcoal adsorber bank, by verifying that the charcoal adsorber bank satisfies the in-place penetration and bypass leakage testing acceptance criteria of less than 0.10% in accordance with ANSI N510-1980 for a halogenated hydrocarbon refrigerant test gas while operating the system at a flow rate of 29,000 cfm ± 10%.

REFUELING OPERATIONS

3/4.9.12 FUEL HANDLING BUILDING EXHAUST AIR SYSTEM

LIMITING CONDITION FOR OPERATION

3.9.12 The FHB Exhaust Air System[1] comprised of the following components shall be OPERABLE:

a. Two exhaust air filter trains,

b. Two exhaust ventilation trains

APPLICABILITY: Whenever irradiated fuel is in the spent fuel pool.

ACTION:

a. With less than the above FHB Exhaust Air System components OPERABLE but with at least one FHB exhaust air filter train, one FHB exhaust ventilation train, and associated dampers OPERABLE, fuel movement within the spent fuel pool or crane operation with loads over the spent fuel pool may proceed provided the OPERABLE FHB Exhaust Air System components are capable of being powered from an OPERABLE emergency power source and are in operation and discharging through at least one train of HEPA filters and charcoal adsorbers.

b. With no FHB exhaust air filter train OPERABLE, suspend all operations involving movement of fuel within the spent fuel pool or crane operation with loads over the spent fuel pool.

c. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.9.12 The above required FHB Exhaust Air Systems shall be demonstrated OPERABLE:

a. At least once per 31 days on a STAGGERED TEST BASIS by initiating, from the control room, flow through the HEPA filters and charcoal adsorbers and verifying that the system operates for at least 10 continuous hours with the heaters operating with the operable exhaust booster fans and the operable main exhaust fans operating to maintain adequate air flow rate;

1At least one FHB exhaust air filter train, one FHB exhaust booster fan, and one FHB main exhaust fan are capable of being powered from an OPERABLE onsite emergency power source.

ATTACHMENT 7

ANNOTATED BASES PAGES

B 3/4.3 INSTRUMENTATION

BASES

B 3/4.3.1 and 3/4.3.2 REACTOR TRIP SYSTEM and ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

The OPERABILITY of the Reactor Trip System and the Engineered Safety Features Actuation System instrumentation and interlocks ensures that: (1) the associated ACTION and/or Reactor trip will be initiated when the parameter monitored by each channel or combination thereof reaches its Setpoint, (2) the specified coincidence logic is maintained, (3) sufficient redundancy is maintained to permit a channel to be out-of-service for testing or maintenance, and (4) sufficient system functional capability is available from diverse parameters.

The OPERABILITY of these systems is required to provide the overall reliability, redundancy, and diversity assumed available in the facility design for the protection and mitigation of accident and transient conditions. The integrated operation of each of these systems is consistent with the assumptions used in the safety analyses. The Surveillance Requirements specified for these systems ensure that the overall system functional capability is maintained comparable to the original design standards. The periodic surveillance tests performed at the minimum frequencies are sufficient to demonstrate this capability. Specified surveillance intervals and surveillance and maintenance outage times have been determined in accordance with WCAP-10271, "Evaluation of Surveillance Frequencies and Out of Service Times for the Reactor Protection Instrumentation System," supplements to that report, and the South Texas Project probabilistic safety assessment (PSA). Surveillance intervals and out of service times were determined based on maintaining an appropriate level of reliability of the Reactor Protection System instrumentation.

The Engineered Safety Features Actuation System Instrumentation Trip Setpoints specified in Table 3.3-4 are the nominal values at which the bistables are set for each functional unit. A Setpoint is considered to be adjusted consistent with the nominal value when the "as measured" Setpoint is within the band allowed for calibration accuracy.

The methodology to derive the Trip Setpoints is based upon combining all of the uncertainties in the channels. Inherent to the determination of the Trip Setpoints are the magnitudes of these channel uncertainties. Sensor and rack instrumentation utilized in these channels are expected to be capable of operating within the allowances of these uncertainty magnitudes. Rack drift in excess of the Allowable Value exhibits the behavior that the rack has not met its allowance. Being that there is a small statistical chance that this will happen, an infrequent excessive drift is expected. Rack or sensor drift, in excess of the allowance that is more than occasional, may be indicative of more serious problems and should warrant further investigation.

REACTOR TRIP SYSTEM and ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION (Continued)

The measurement of response time at the specified frequencies provides assurance that the Reactor trip and the Engineered Safety Features actuation associated with each channel is completed within the time limit assumed in the safety analyses. No credit was taken in the analyses for those channels with response times indicated as not applicable. Response time may be demonstrated by any series of sequential, overlapping, or total channel test measurements provided that such tests demonstrate the total channel response time as defined. Sensor response time verification may be demonstrated by either: (1) in place, onsite, or offsite test measurements, or (2) utilizing replacement sensors with certified response times.

The Engineered Safety Features Actuation System senses selected plant parameters and determines whether or not predetermined limits are being exceeded. If they are, the signals are combined into logic matrices sensitive to combinations indicative of various accidents, events, and transients. Once the required logic combination is completed, the system sends actuation signals to those Engineered Safety Features components whose aggregate function best serves the requirements of the condition. As an example, the following actions may be initiated by the Engineered Safety Features Actuation System to mitigate the consequences of a steam line break or loss-of-coolant accident: (1) Safety Injection pumps start, (2) Reactor trip, (3) feedwater isolation, (4) startup of the standby diesel generators, (5) containment spray pumps start and automatic valves position, (6) containment isolation, (7) steam line isolation, (8) Turbine trip, (9) auxiliary feedwater pumps start and automatic valves position, (10) reactor containment fan coolers start, (11) essential cooling water pumps start and automatic valves position, (12) Control Room Ventilation Systems start, and (13) component cooling water pumps start and automatic valves position.

With less than the minimum channels of Control Room Intake Air Radioactivity – High, ACTION 28 of Table 3.3-3 requires the Control Room Makeup and Cleanup Filtration System to be operated at 100% capacity in the recirculation and filtration mode. Any two of the three 50% Control Room Makeup and Cleanup Filtration System trains meet the 100% capacity requirement.

The limitations on minimum water level and maximum temperature are based on providing a 30-day cooling water supply to safety-related equipment without exceeding its design basis temperature and is consistent with the recommendations of Regulatory Guide 1.27, "Ultimate Heat Sink for Nuclear Plants," March 1974.

B 3/4.7.6 (Not used)

B 3/4.7.7 CONTROL ROOM MAKEUP AND CLEANUP FILTRATION SYSTEM

The OPERABILITY of the Control Room Makeup and Cleanup Filtration System ensures that: (1) the ambient air temperature does not exceed the allowable temperature for continuous-duty rating for the equipment and instrumentation cooled by this system, and (2) the control room will remain habitable for operations personnel during and following all credible accident conditions. Operation of the system with the heaters operating for at least 10 continuous hours in a 31-day period is sufficient to reduce the buildup of moisture on the adsorbers and HEPA filters. The OPERABILITY of this system in conjunction with control room design provisions is based on limiting the radiation exposure to personnel occupying the control room to 5 rems or less whole body, or its equivalent. This limitation is consistent with the requirements of General Design Criterion 19 or Appendix A, 10 CFR Part 50. ANSI N510-1980 will be used as a procedural guide for surveillance testing.

The time limits associated with the ACTIONS to restore an inoperable train to OPERABLE status are consistent with the redundancy and capability of the system and the low probability of a design basis accident while the affected trains(s) is out of service. A limited allowed outage time of 12 hours is allowed for all three trains to be out of service simultaneously in recognition of the fact that there are common plenums and some maintenance of testing activities required opening or entry into these common plenums. This time is reasonable to diagnose, plan, and possibly repair problems with the boundary or the ventilation system. This is acceptable based on the low probability of a design basis event in that brief allowed outage time and because administrative controls impose compensatory actions that reduce the already small risk associated with being in the ACTION. The compensatory actions are consistent with the intent of GDC 19, GDC 60 and Part 100 to protect plant personnel from potential hazards such as radioactive contamination, smoke, and temperature, etc. Pre-planned measures should be available to address these concerns for intentional and unintentional entry into the condition. The compensatory actions include:

- In MODES 1, 2, 3 and 4, procedures will preclude intentionally removing multiple trains of Control Room Envelope HVAC from service if Containment Spray is not functional or intentionally making a train of Containment Spray unavailable when multiple trains of of Control Room Envelope HVAC are out of service. For purposes of this compensatory action, Containment Spray is considered functional if at least one train can be manually or automatically initiated.
- The plant will not make planned simultaneous entries into TS 3.7.7 ACTION c. for MODES 1, 2, 3, and 4 and TS 3.7.8 ACTION b or d.

These compensatory actions also include administrative controls on opening plenums or other openings such that appropriate communication is established with the control room to assure timely closing of the system if necessary. Since the Control Room Envelope boundary integrity also affects operability of the overall system, entry and exit is administratively controlled. Administrative control of entry and exit through doors is performed by the person(s) entering or exiting the area. Extended opening of the boundary is coordinated with the control room with appropriate plans for closure and communication.

B 3/4.7.8 FUEL HANDLING BUILDING EXHAUST AIR SYSTEM

The FHB exhaust air system is comprised of two independent exhaust air filter trains and three exhaust ventilation trains. Each of the three exhaust ventilation trains has a main exhaust fan, an exhaust booster fan, and associated dampers. The main exhaust fans share a common plenum and the exhaust booster fans share a common plenum. An OPERABLE ventilation exhaust train consists of any OPERABLE main exhaust fan, any OPERABLE exhaust booster fan, and appropriate dampers.

The OPERABILITY of the Fuel Handling Building Exhaust Air System ensures that radioactive materials leaking from the ECCS equipment within the FHB following a LOCA are filtered prior to reaching the environment. Operation of the system with the heaters operating for the least 10 continuous hours in a 31-day period is sufficient to reduce the buildup of moisture on the adsorbers and HEPA filters. The operation of this system and the resultant effect on offsite dosage calculations was assumed in the safety analyses. ANSI N510-1980 will be used as a procedural guide for surveillance testing.

The time limits associated with the ACTIONS to restore an inoperable train to OPERABLE status are consistent with the redundancy and capability of the system and the low probability of a design basis accident while the affected trains(s) is out of service. A limited allowed outage time of 12 hours is allowed for multiple trains to be out of service simultaneously in recognition of the fact that there are common plenums and some maintenance of testing activities required opening or entry into these common plenums. This time is reasonable to diagnose, plan, and possibly repair problems with the boundary or the ventilation system. This is acceptable based on the low probability of a design basis event in that brief allowed outage time and because administrative controls impose compensatory actions that reduce the already small risk associated with being in the ACTION. The compensatory actions are consistent with the intent of GDC 19, GDC 60 and Part 100 to protect plant personnel from potential hazards such as radioactive contamination, smoke, and temperature, etc. Pre-planned measures should be available to address these concerns for intentional and unintentional entry into the condition. These compensatory actions include administrative controls on opening plenums or other openings such that appropriate communication is established with the control room to assure timely closing of the system if necessary. Since the Fuel Handling Building boundary integrity also affects operability of the overall system, entry and exit is administratively controlled. Administrative control of entry and exit through doors is performed by the person(s) entering or exiting the area. Extended opening of the boundary is coordinated with the control room with appropriate plans for closure and communication.

~~For Unit 2 only, from the date of amendment issuance through July 14, 1999, the limited allowed outage time is allowed for all of components of the Fuel Handling Building Exhaust Air System to be out of service in recognition of the fact that there are common plenums and the repair to the exhaust booster fan requires opening or entry into these plenums. This is acceptable based on the low probability of a design basis event in the brief allowed outage time and because administrative controls are imposed on the activities that provide for compensatory action to restore integrity of the system.~~

B 3/4.7.9 (Not Used)

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B 3/4.9.8 RESIDUAL HEAT REMOVAL AND COOLANT CIRCULATION

The requirement that at least one residual heat removal (RHR) loop be in operation ensures that: (1) sufficient cooling capacity is available to remove decay heat and maintain the water in the reactor vessel below 140°F as required during the REFUELING MODE, and (2) sufficient coolant circulation is maintained through the core to minimize the effect of a boron dilution incident and prevent boron stratification.

The requirement to have two RHR loops OPERABLE when there is less than 23 feet of water above the reactor vessel flange ensures that a single failure of the operating RHR loop will not result in a complete loss of residual heat removal capability. With the reactor vessel head removed and at least 23 feet of water above the reactor pressure vessel flange, a large heat sink is available for core cooling. Thus, in the event of a failure of the operating RHR loop, adequate time is provided to initiate emergency procedures to cool the core.

B 3/4.9.9 CONTAINMENT VENTILATION ISOLATION SYSTEM

The OPERABILITY of this system ensures that the containment purge and exhaust penetrations will be automatically isolated upon detection of high radiation levels in the purge exhaust. The OPERABILITY of this system is required to restrict the release of radioactive material from the containment atmosphere to the environment.

B 3/4.9.10 and B 3/4.9.11 WATER LEVEL - REFUELING CAVITY AND STORAGE POOLS

The restrictions on minimum water level ensure that sufficient water depth is available to remove 99% of the assumed iodine gap activity released from the rupture of an irradiated fuel assembly. The minimum water depth is consistent with the assumptions of the safety analysis.

B 3/4.9.12 FUEL HANDLING BUILDING EXHAUST AIR SYSTEM

The FHB exhaust air system is comprised of two independent exhaust air filter trains and three exhaust ventilation trains. Each of the three exhaust ventilation trains has a main exhaust fan, an exhaust booster fan, and associated dampers. The main exhaust fans share a common plenum and the exhaust booster fans share a common plenum. An OPERABLE ventilation exhaust train consists of any OPERABLE main exhaust fan, any OPERABLE exhaust booster fan and appropriate OPERABLE dampers.

The limitations on the Fuel Handling Building Exhaust Air System ensure that all radioactive material released from an irradiated fuel assembly will be filtered through the HEPA filters and charcoal adsorber prior to discharge to the atmosphere. Operation of the system with the heaters operating for at least 10 continuous hours in a 31-day period is sufficient to reduce the buildup of moisture on the adsorbers and HEPA filters. The OPERABILITY of this system and the resulting iodine removal capacity are consistent with the assumptions of the safety analyses. ANSI N510-1980 will be used as a procedural guide for surveillance testing. This Specification has been modified by a note that states, at least one FHB exhaust air filter train, one FHB exhaust booster fan, and one FHB main exhaust fan are capable of being powered from an Onsite emergency power source. This note ensures that required FHB exhaust train components will have an emergency power source available, even if the limiting conditions for operation can be satisfied.

ATTACHMENT 8

REVISED BASES PAGES

B 3/4.3 INSTRUMENTATION

BASES

B 3/4.3.1 and 3/4.3.2 REACTOR TRIP SYSTEM and ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION

The OPERABILITY of the Reactor Trip System and the Engineered Safety Features Actuation System instrumentation and interlocks ensures that: (1) the associated ACTION and/or Reactor trip will be initiated when the parameter monitored by each channel or combination thereof reaches its Setpoint, (2) the specified coincidence logic is maintained, (3) sufficient redundancy is maintained to permit a channel to be out-of-service for testing or maintenance, and (4) sufficient system functional capability is available from diverse parameters.

The OPERABILITY of these systems is required to provide the overall reliability, redundancy, and diversity assumed available in the facility design for the protection and mitigation of accident and transient conditions. The integrated operation of each of these systems is consistent with the assumptions used in the safety analyses. The Surveillance Requirements specified for these systems ensure that the overall system functional capability is maintained comparable to the original design standards. The periodic surveillance tests performed at the minimum frequencies are sufficient to demonstrate this capability. Specified surveillance intervals and surveillance and maintenance outage times have been determined in accordance with WCAP-10271, "Evaluation of Surveillance Frequencies and Out of Service Times for the Reactor Protection Instrumentation System," supplements to that report, and the South Texas Project probabilistic safety assessment (PSA). Surveillance intervals and out of service times were determined based on maintaining an appropriate level of reliability of the Reactor Protection System instrumentation.

The Engineered Safety Features Actuation System Instrumentation Trip Setpoints specified in Table 3.3-4 are the nominal values at which the bistables are set for each functional unit. A Setpoint is considered to be adjusted consistent with the nominal value when the "as measured" Setpoint is within the band allowed for calibration accuracy.

The methodology to derive the Trip Setpoints is based upon combining all of the uncertainties in the channels. Inherent to the determination of the Trip Setpoints are the magnitudes of these channel uncertainties. Sensor and rack instrumentation utilized in these channels are expected to be capable of operating within the allowances of these uncertainty magnitudes. Rack drift in excess of the Allowable Value exhibits the behavior that the rack has not met its allowance. Being that there is a small statistical chance that this will happen, an infrequent excessive drift is expected. Rack or sensor drift, in excess of the allowance that is more than occasional, may be indicative of more serious problems and should warrant further investigation.

REACTOR TRIP SYSTEM and ENGINEERED SAFETY FEATURES ACTUATION SYSTEM INSTRUMENTATION (Continued)

The measurement of response time at the specified frequencies provides assurance that the Reactor trip and the Engineered Safety Features actuation associated with each channel is completed within the time limit assumed in the safety analyses. No credit was taken in the analyses for those channels with response times indicated as not applicable. Response time may be demonstrated by any series of sequential, overlapping, or total channel test measurements provided that such tests demonstrate the total channel response time as defined. Sensor response time verification may be demonstrated by either: (1) in place, onsite, or offsite test measurements, or (2) utilizing replacement sensors with certified response times.

The Engineered Safety Features Actuation System senses selected plant parameters and determines whether or not predetermined limits are being exceeded. If they are, the signals are combined into logic matrices sensitive to combinations indicative of various accidents, events, and transients. Once the required logic combination is completed, the system sends actuation signals to those Engineered Safety Features components whose aggregate function best serves the requirements of the condition. As an example, the following actions may be initiated by the Engineered Safety Features Actuation System to mitigate the consequences of a steam line break or loss-of-coolant accident: (1) Safety Injection pumps start, (2) Reactor trip, (3) feedwater isolation, (4) startup of the standby diesel generators, (5) containment spray pumps start and automatic valves position, (6) containment isolation, (7) steam line isolation, (8) Turbine trip, (9) auxiliary feedwater pumps start and automatic valves position, (10) reactor containment fan coolers start, (11) essential cooling water pumps start and automatic valves position, (12) Control Room Ventilation Systems start, and (13) component cooling water pumps start and automatic valves position.

With less than the minimum channels of Control Room Intake Air Radioactivity – High, ACTION 28 of Table 3.3-3 requires the Control Room Makeup and Cleanup Filtration System to be operated at 100% capacity in the recirculation and filtration mode. Any two of the three 50% Control Room Makeup and Cleanup Filtration System trains meet the 100% capacity requirement.

The limitations on minimum water level and maximum temperature are based on providing a 30-day cooling water supply to safety-related equipment without exceeding its design basis temperature and is consistent with the recommendations of Regulatory Guide 1.27, "Ultimate Heat Sink for Nuclear Plants," March 1974.

B 3/4.7.6 (Not used)

B 3/4.7.7 CONTROL ROOM MAKEUP AND CLEANUP FILTRATION SYSTEM

The OPERABILITY of the Control Room Makeup and Cleanup Filtration System ensures that: (1) the ambient air temperature does not exceed the allowable temperature for continuous-duty rating for the equipment and instrumentation cooled by this system, and (2) the control room will remain habitable for operations personnel during and following all credible accident conditions. Operation of the system with the heaters operating for at least 10 continuous hours in a 31-day period is sufficient to reduce the buildup of moisture on the adsorbers and HEPA filters. The OPERABILITY of this system in conjunction with control room design provisions is based on limiting the radiation exposure to personnel occupying the control room to 5 rems or less whole body, or its equivalent. This limitation is consistent with the requirements of General Design Criterion 19 or Appendix A, 10 CFR Part 50. ANSI N510-1980 will be used as a procedural guide for surveillance testing.

The time limits associated with the ACTIONS to restore an inoperable train to OPERABLE status are consistent with the redundancy and capability of the system and the low probability of a design basis accident while the affected trains(s) is out of service. A limited allowed outage time of 12 hours is allowed for all three trains to be out of service simultaneously in recognition of the fact that there are common plenums and some maintenance of testing activities required opening or entry into these common plenums. This time is reasonable to diagnose, plan, and possibly repair problems with the boundary or the ventilation system. This is acceptable based on the low probability of a design basis event in that brief allowed outage time and because administrative controls impose compensatory actions that reduce the already small risk associated with being in the ACTION. The compensatory actions are consistent with the intent of GDC 19, GDC 60 and Part 100 to protect plant personnel from potential hazards such as radioactive contamination, smoke, and temperature, etc. Pre-planned measures should be available to address these concerns for intentional and unintentional entry into the condition. The compensatory actions include:

- Procedures will preclude intentionally removing multiple trains of Control Room Envelope HVAC from service if Containment Spray is not functional or intentionally making a train of Containment Spray unavailable when multiple trains of of Control Room Envelope HVAC are out of service. For purposes of this compensatory action, Containment Spray is considered functional if at least one train can be manually or automatically initiated.
- The plant will not make planned simultaneous entries into TS 3.7.7 ACTION c. for MODES 1, 2, 3, and 4 and TS 3.7.8 ACTION b or d.

These compensatory actions also include administrative controls on opening plenums or other openings such that appropriate communication is established with the control room to assure timely closing of the system if necessary. Since the Control Room Envelope boundary integrity also affects operability of the overall system, entry and exit is administratively controlled. Administrative control of entry and exit through doors is performed by the person(s) entering or exiting the area. Extended opening of the boundary is coordinated with the control room with appropriate plans for closure and communication.

B 3/4.7.8 FUEL HANDLING BUILDING EXHAUST AIR SYSTEM

The FHB exhaust air system is comprised of two independent exhaust air filter trains and three exhaust ventilation trains. Each of the three exhaust ventilation trains has a main exhaust fan, an exhaust booster fan, and associated dampers. The main exhaust fans share a common plenum and the exhaust booster fans share a common plenum. An OPERABLE ventilation exhaust train consists of any OPERABLE main exhaust fan, any OPERABLE exhaust booster fan, and appropriate dampers.

The OPERABILITY of the Fuel Handling Building Exhaust Air System ensures that radioactive materials leaking from the ECCS equipment within the FHB following a LOCA are filtered prior to reaching the environment. Operation of the system with the heaters operating for the least 10 continuous hours in a 31-day period is sufficient to reduce the buildup of moisture on the adsorbers and HEPA filters. The operation of this system and the resultant effect on offsite dosage calculations was assumed in the safety analyses. ANSI N510-1980 will be used as a procedural guide for surveillance testing

The time limits associated with the ACTIONS to restore an inoperable train to OPERABLE status are consistent with the redundancy and capability of the system and the low probability of a design basis accident while the affected trains(s) is out of service. A limited allowed outage time of 12 hours is allowed for multiple trains to be out of service simultaneously in recognition of the fact that there are common plenums and some maintenance of testing activities required opening or entry into these common plenums. This time is reasonable to diagnose, plan, and possibly repair problems with the boundary or the ventilation system. This is acceptable based on the low probability of a design basis event in that brief allowed outage time and because administrative controls impose compensatory actions that reduce the already small risk associated with being in the ACTION. The compensatory actions are consistent with the intent of GDC 19, GDC 60 and Part 100 to protect plant personnel from potential hazards such as radioactive contamination, smoke, and temperature, etc. Pre-planned measures should be available to address these concerns for intentional and unintentional entry into the condition. These compensatory actions include administrative controls on opening plenums or other openings such that appropriate communication is established with the control room to assure timely closing of the system if necessary. Since the Fuel Handling Building boundary integrity also affects operability of the overall system, entry and exit is administratively controlled. Administrative control of entry and exit through doors is performed by the person(s) entering or exiting the area. Extended opening of the boundary is coordinated with the control room with appropriate plans for closure and communication.

B 3/4.7.9 (Not Used)

B 3/4.9.8 RESIDUAL HEAT REMOVAL AND COOLANT CIRCULATION

The requirement that at least one residual heat removal (RHR) loop be in operation ensures that: (1) sufficient cooling capacity is available to remove decay heat and maintain the water in the reactor vessel below 140°F as required during the REFUELING MODE, and (2) sufficient coolant circulation is maintained through the core to minimize the effect of a boron dilution incident and prevent boron stratification.

The requirement to have two RHR loops OPERABLE when there is less than 23 feet of water above the reactor vessel flange ensures that a single failure of the operating RHR loop will not result in a complete loss of residual heat removal capability. With the reactor vessel head removed and at least 23 feet of water above the reactor pressure vessel flange, a large heat sink is available for core cooling. Thus, in the event of a failure of the operating RHR loop, adequate time is provided to initiate emergency procedures to cool the core.

B 3/4.9.9 CONTAINMENT VENTILATION ISOLATION SYSTEM

The OPERABILITY of this system ensures that the containment purge and exhaust penetrations will be automatically isolated upon detection of high radiation levels in the purge exhaust. The OPERABILITY of this system is required to restrict the release of radioactive material from the containment atmosphere to the environment.

B 3/4.9.10 and B 3/4.9.11 WATER LEVEL - REFUELING CAVITY AND STORAGE POOLS

The restrictions on minimum water level ensure that sufficient water depth is available to remove 99% of the assumed iodine gap activity released from the rupture of an irradiated fuel assembly. The minimum water depth is consistent with the assumptions of the safety analysis.

B 3/4.9.12 FUEL HANDLING BUILDING EXHAUST AIR SYSTEM

The FHB exhaust air system is comprised of two independent exhaust air filter trains and three exhaust ventilation trains. Each of the three exhaust ventilation trains has a main exhaust fan, an exhaust booster fan, and associated dampers. The main exhaust fans share a common plenum and the exhaust booster fans share a common plenum. An OPERABLE ventilation exhaust train consists of any OPERABLE main exhaust fan, any OPERABLE exhaust booster fan and appropriate OPERABLE dampers.

The limitations on the Fuel Handling Building Exhaust Air System ensure that all radioactive material released from an irradiated fuel assembly will be filtered through the HEPA filters and charcoal adsorber prior to discharge to the atmosphere. Operation of the system with the heaters operating for at least 10 continuous hours in a 31-day period is sufficient to reduce the buildup of moisture on the adsorbers and HEPA filters. The OPERABILITY of this system and the resulting iodine removal capacity are consistent with the assumptions of the safety analyses. ANSI N510-1980 will be used as a procedural guide for surveillance testing. This Specification has been modified by a note that states, at least one FHB exhaust air filter train, one FHB exhaust booster fan, and one FHB main exhaust fan are capable of being powered from an Onsite emergency power source. This note ensures that required FHB exhaust train components will have an emergency power source available, even if the limiting conditions for operation can be satisfied.

ATTACHMENT 9

LIST OF COMMITMENTS

Commitments Made in this Submittal

The commitments listed below were made in this submittal. Each has been incorporated into the proposed Bases for the associated Technical Specification. These commitments will maintained in accordance with the South Texas Project procedure for Licensing Commitment Management and Administration.

1) Containment Spray can be used to reduce the potential for radioactive material release under accident conditions. For MODES 1, 2, 3, and 4, procedures will preclude intentionally removing multiple trains of Control Room Envelope HVAC from service if Containment Spray is not functional or intentionally making a train of Containment Spray unavailable when multiple trains of of Control Room Envelope HVAC are out of service.

2) STP will not intentionally enter the action for multiple trains out of service for Specification 3.7.7 and Specification 3.7.8 simultaneously.

3) Procedures will require appropriate communications between the control room and person(s) opening the ventilation system or breaching the boundary integrity for extended periods of time to assure that the opening can be closed promptly if necessary.