



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

January 6, 2005
NOC-AE-05001834
10CFR50.90

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
One White Flint North
11555 Rockville Pike
Rockville, MD 20852

South Texas Project
Unit 1
Docket No. STN 50-498
License Amendment Request
Proposed One-Time Change to Technical Specification 3.7.4, "Essential Cooling Water System,"
and Associated Supported Systems Limiting Condition for Operation Action Statements

STP Nuclear Operating Company (STPNOC) is submitting the attached proposed extension to the Allowed Outage Time for Technical Specification (TS) 3.7.4, "Essential Cooling Water System," and the associated TS for those systems supported by Essential Cooling Water, for an additional 7 days, on a one-time basis. This Allowed Outage Time extension is being requested to facilitate repairs to the Unit 1 Train B Essential Cooling Water (ECW) pump.

Efforts are currently in progress to perform necessary repairs and return the pump to service. The Action Statement for Technical Specification 3.7.4 requires that three trains of Essential Cooling Water be restored 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. The Allowed Outage Time for the Train B Essential Cooling Water pump was entered on January 4, 2005 at 0400 hours and expires on January 11, 2005 at 0400 hours. The Train B ECW pump maintenance and return to OPERABLE status is scheduled to be completed within the existing 7-day Allowed Outage Time. However, as a contingency, an additional 7 days, or a total Allowed Outage Time of 14 days, is being requested should unexpected conditions be discovered during the Train B ECW system repair and testing efforts.

Entry into the required action of TS 3.7.4 could not reasonably have been foreseen or anticipated. Therefore, STPNOC requests approval of this license amendment application on an emergency basis by January 11, 2005 at 0400 hours in order to avoid an unnecessary shutdown of Unit 1 prior to completion of repairs and restoration to operability of the Train B ECW pump.

ASD1

STI: 31828676

If it is determined that repair and testing of the Unit 1 Train B ECW pump will be completed within the current 7-day AOT, STPNOC will notify the NRC and withdraw the proposed amendment request.

The STPNOC Plant Operations Review Committee has reviewed and concurred with the proposed change to the Technical Specifications.

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

The only commitments made in this submittal are listed in Attachment 2.

If there are any questions regarding the responses, please contact Mr. S. M. Head at (361) 972-7136 or me at (361) 972-7800.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on 1-6-05


G. L. Parkey
Vice President, Generation
and Plant General Manager

jrm/

Attachments:

1. Description of Changes and Safety Evaluation
2. Commitments
3. Annotated Technical Specification Page

cc:

(paper copy)

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

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

Jeffrey Cruz
U. S. Nuclear Regulatory Commission
P. O. Box 289, Mail Code: MN116
Wadsworth, TX 77483

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

(electronic copy)

A. H. Gutterman, Esquire
Morgan, Lewis & Bockius LLP

David H. Jaffe
U. S. Nuclear Regulatory Commission

R. L. Balcom
Texas Genco, LP

C. A. Johnson
AEP Texas Central Company
C. Kirksey
City of Austin

Jon C. Wood
Cox Smith Matthews

J. J. Nesrsta
R. K. Temple
E. Alarcon
City Public Service

Description of Changes and Safety Evaluation

1.0 Description

This letter is a request to amend Operating License NPF-76 for Unit 1. The purpose of this change is to extend on a one-time basis, for an additional 7 days, the Allowed Outage Time (AOT) for Technical Specification (TS) 3.7.4, "Essential Cooling Water System," and the associated TS for systems supported by the Essential Cooling Water (ECW). This Allowed Outage Time extension is being requested to facilitate repairs to the Unit 1 Train B Essential Cooling Water (ECW) pump.

Unit 1 Train B ECW was declared inoperable on January 4, 2005 in order to perform an inspection of the pump gland seal and lubricating water inlet lantern ring in response to decreasing pump lubricating water flow. During maintenance, it was determined that the pump packing assembly did not contribute to the low lubricating water flow and a pump rebuild would be required.

Efforts are currently in progress to perform necessary repairs and return the pump to service. The Action Statement for Technical Specification 3.7.4 requires that three trains of Essential Cooling Water be restored 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. The Allowed Outage Time for the Train B Essential Cooling Water pump was entered on January 4, 2005 at 0400 hours and expires on January 11, 2005 at 0400 hours. The Train B ECW pump maintenance and return to OPERABLE status is scheduled to be completed within the existing 7-day Allowed Outage Time. The A and C Trains of Unit 1 ECW and all three Trains of Unit 2 ECW remain fully OPERABLE, and no similar lubricating water flow issue exists on these trains. Train B ECW repair and testing will be conducted on a 24-hour basis and anticipated parts are onsite or readily available. Also, ECW pump rebuilds have been successfully performed in the past within the 7-day AOT. However, as a contingency, an additional 7 days, or a total Allowed Outage Time of 14 days, is being requested should unexpected conditions be discovered during the Train B ECW system repair and testing efforts.

Entry into the required action of TS 3.7.4 could not reasonably have been foreseen or anticipated. Therefore, STP Nuclear Operating Company (STPNOC) requests approval of this license amendment application on an emergency basis by January 11, 2005 at 0400 hours in order to avoid an unnecessary shutdown of Unit 1 prior to completion of repairs and restoration to operability of the Train B ECW pump.

2.0 Proposed Change

STPNOC proposes to change TS 3.7.4 and the associated TS for those systems supported by ECW by the addition of a note to TS 3.7.4 which extends, on a one-time basis, the AOT for an additional 7 days. The proposed note would read as shown below:

"On a one-time basis, the Allowed Outage Time for Unit 1 Train B Essential Cooling Water and for those Technical Specification systems supported by

Train B Essential Cooling Water (Technical Specifications 3.5.2, 3.5.6, 3.6.2.1, 3.6.2.3, 3.7.3, 3.7.7, and 3.7.14), is extended to 14 days. This one-time extension expires January 18, 2005 at 0400 hours."

The TS markup is provided in Attachment 3. The TS Bases should not require revision since the change is self-explanatory.

The TS affected by the proposed change are:

TS 3.7.4, "Essential Cooling Water System"

"With only two essential cooling water loops OPERABLE, restore at least three loops to OPEABLE 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."

TS 3.5.2, "ECCS Subsystems - T_{avg} Greater Than or Equal To 350 °F," ACTION a

"With less than the above subsystems OPERABLE, but with at least two High Head Safety Injection pumps in an OPERABLE status, two Low Head Safety Injection pumps and associated RHR heat exchangers in an OPERABLE status, and sufficient flow paths to accommodate these OPERABLE Safety Injection Pumps and RHR heat exchangers, restore the inoperable subsystem(s) to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours."

TS 3.5.6, "Residual Heat Removal (RHR) System," ACTION a

"With one RHR loop inoperable, restore the required loop to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours and in HOT SHUTDOWN within the following 6 hours."

TS 3.6.2.1, "Containment Spray System"

"With one Containment Spray System inoperable, restore the inoperable Spray System to OPERABLE status within 7 days or be in at least HOT STANDBY within the next 6 hours; restore the inoperable Spray System to OPERABLE status within the next 48 hours or be in COLD SHUTDOWN within the following 30 hours."

TS 3.6.2.3, "Containment Cooling System"

"With one group of the above required Reactor Containment Fan Coolers inoperable, restore the inoperable group of RCFC 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."

TS 3.7.3, "Component Cooling Water System"

"With only two component cooling water loops OPERABLE, restore at least three loops 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."

TS 3.7.7, "Control Room Makeup and Cleanup Filtration System"

"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."

TS 3.7.14, "Essential Chilled Water"

"With only two Essential Chilled Water System loops OPERABLE, restore three loops 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."

3.0 Background

System Description

The ECW system consists of three 50-percent capacity trains and provides cooling required for safety-related components during and after any design basis accident such as a loss of coolant accident, loss of offsite power, or a safe shutdown earthquake. Additionally, the ECW system functions during normal operation and other non-emergency operating modes to transfer heat loads from service equipment to the essential cooling pond. The ECW system provides cooling water to the following components during all emergency and non-emergency modes of operation:

- Standby Diesel Generator Inter-cooler
- Standby Diesel Generator Auxiliary Equipment Skid Coolers
(Note that the Standby Diesel Generator Technical Specification allowed outage time is 14 days. Consequently, there is no need to extend the proposed AOT extension to the Standby Diesel Generator.)
- Essential HVAC Chiller (TS 3.7.14), which supports the following:
 - Emergency Core Cooling System (TS 3.5.2)
 - Containment Spray System (TS 3.6.2.1)
 - Control Room Cleanup and Filtration (TS 3.7.7)

- Component Cooling Water Pump Supplementary Cooler
- Component Cooling Water Heat Exchanger (TS 3.7.3), which supports the following:
 - Emergency Core Cooling System (TS 3.5.2)
 - Residual Heat Removal System (TS 3.5.6)
 - Reactor Containment Fan Coolers (TS 3.6.2.3)

Background

Unit 1 Train B ECW was declared inoperable on January 4, 2005 in order to perform an inspection of the pump gland seal and lubricating water inlet lantern ring in response to decreasing pump lubricating water flow. During maintenance, it was determined that the pump packing assembly did not contribute to the low lubricating water flow and a pump rebuild would be required. Pump disassembly revealed a number of damaged internal parts as described below. It is anticipated that the pump rebuild and operability testing will be completed within the existing 7-day AOT permitted by TS 3.7.4. However, as a contingency, an additional 7 days, or a total allowed outage time of 14 days, is being requested should unexpected conditions be discovered during the Train B ECW system repair and testing efforts.

Reason for requesting change on an emergency basis

Beginning in mid-November 2004, ECW Train B Pump lubricating water flow started exhibiting a decreasing trend. Initially, the decreasing flow appeared to follow a declining ECW Pond temperature. When pond temperatures started increasing in late December without a corresponding increase in lubricating water flow, a troubleshooting plan was initiated to determine the cause of the low flow condition. A fault-tree analysis was performed in order to identify possible causes for the decreasing lubricating water flow.

Following investigation and troubleshooting efforts that included lubricating water filter replacement, ultrasonic flow measurements to validate instrument readings, and a system walkdown, it was decided to perform an inspection of the Train B pump's gland seal and lubricating water inlet lantern ring to determine if a blockage or other problem existed at the entrance to the ECW pump. On January 4, 2005 at 0400 hours, the Train B pump was declared inoperable in order to perform this work, and TS 3.7.4 was entered.

During pump gland seal disassembly, the pump packing and lantern ring showed no discernible degradation. Additionally, boroscopic inspection showed no blockages within the lubricating water line. Based upon these findings, it was determined that a pump tear-down would be required to identify and correct the decreasing lubricating flow issue.

The following conditions were identified upon disassembly of the pump:

- The middle line shaft bearing had failed
- The O-ring between the intermediate bearing housing and lower enclosure column was damaged
- The lower shaft bearing, lower shaft and shaft sleeves were damaged
- The upper shaft bearing shows signs of wear

An investigation to determine the root cause(s) of the Unit 1 Train B ECW pump damage has been initiated. As discussed above, STPNOC's routine monitoring of ECW pump operating characteristics and trends (including lubricating water flow) led to the discovery of the Train B pump damage. The Unit 1 Train A and C ECW pumps, as well as all three Unit 2 ECW pumps are OPERABLE and continue to perform well, and no adverse pump operating trends are indicated for these other ECW pumps.

STPNOC will continue to monitor ECW pump operating characteristics and trends. Should an adverse trend become evident for one of the other ECW pumps, STPNOC will evaluate the condition and take action as necessary in accordance with the Corrective Action Program.

It is anticipated that corrective maintenance, pump rebuild, and subsequent operability testing will be completed within the existing 7-day AOT. As stated above, the A and C Trains of Unit 1 ECW and all three Trains of Unit 2 ECW remain fully OPERABLE, and no similar lubricating water flow condition exists on these trains. The anticipated parts are onsite or readily available and work will be performed on a 24-hour basis. However, as a contingency, an additional 7 days, or a total Allowed Outage Time of 14 days, is being requested should unexpected conditions be discovered during the Train B ECW system repair and testing efforts.

As demonstrated above, entry into the required action of TS 3.7.4 and associated supported TS could not reasonably have been foreseen or anticipated. Routine monitoring of ECW pump operating characteristics and trends (including lubricating water flow) led to the discovery of the Train B pump damage. Therefore, STPNOC requests approval of this license amendment application on an emergency basis by January 11, 2005 at 0400 hours (the end of the current Train B AOT) in order to avoid an unnecessary Unit 1 plant shutdown.

Condition that the proposed amendment is intended to resolve

The purpose of this proposed one-time TS amendment is to extend the Allowed Outage Time for TS 3.7.4 and TS supported by ECW to permit adequate time to perform maintenance, pump rebuild, and operability testing. This amendment request is being submitted to address an isolated equipment issue and is not indicative of an inadequate TS. Therefore, a permanent change to the TS is not being requested.

4.0 Technical Evaluation

System Description

The ECW system is designed to supply cooling water to various safety-related systems for normal plant operation as well as normal shutdown and during and after postulated Design Basis Accidents (DBAs). The ECW system is designed to perform its cooling function following a DBA with either offsite or onsite power available, automatically and without operator action, assuming a single failure. A minimum of two ECW trains is required to operate following a DBA. A separate and independent ECW system is provided for each unit of the South Texas Project.

Heat rejection to the ECW system during either normal operation, normal shutdown, or DBA conditions is accomplished by three redundant cooling water loops, each having its own pump, motor, self-cleaning strainer, piping, valves, and instrumentation. Each loop contains one set of Standby Diesel Generator Heat Exchangers, one Component Cooling Water (CCW) Heat Exchanger, one essential chiller condenser, and one CCW pump supplementary cooler. Cooling water is supplied to each of these components during all modes of operation, whether or not the particular equipment is operating. An ECW loop is required to operate whenever its corresponding CCW loop is in operation.

In the event of Loss of Offsite Power (LOOP), power to the ECW pumps is supplied by the Emergency Safety Feature (ESF) buses, which are supplied by the Standby Diesel Generators. Each Class 1E ESF bus provides electrical power to its respective ECW system cooling loop. As stated in UFSAR Section 9.2.1.2.2.3, a minimum of two ECW trains is required to operate following a Design Basis Accident.

The currently degraded condition of Train B ECW has two potential outcomes. Either the plant is maintained in an at-power condition for an additional period of 7 days beyond the current 7-day AOT to effect repairs on the pump, or the plant proceeds to cold shutdown in accordance with the Technical Specifications. In assessing the safety significance and potential consequences of the proposed one-time TS change, it is necessary to characterize the effects on plant safety for these two conditions.

PRA Analysis

An assessment of the change in the South Texas Project Unit 1 core damage frequency (CDF) due to allowing continued operation while repairing the Train B ECW beyond the Technical Specification AOT (Allowed Outage Time) of 7 days was performed for an additional period of 7 days. This assessment included systems supported by the ECW system in addition to the ECW system itself. This assessment was performed with the South Texas Project Probabilistic Risk Assessment (PRA) model. The PRA model is an at-power model including both internal and external events.

Regulatory Guide 1.174 Evaluation

Because the Train B ECW condition is limited in time, the delta CDF and the delta Large Early Release Frequency (LERF) are multiplied by the expected 7-day extension of the AOT to obtain a conditional probability. The conditional probability is treated as an Incremental Conditional Core Damage Probability (ICCDP) and Incremental Conditional Large Early Release Probability (ICLERP) for the evaluation against RG 1.174. The PRA evaluation for extending the AOT an additional 7 days was performed assuming “zero maintenance” for that time.

The table below depicts the acceptance criteria of Regulatory Guide (RG) 1.174 and the results calculated for the proposed change.

| | ICCDP | Total CDF | ICLERP | Total LERF |
|--|--------------|------------------|---------------|-------------------|
| STP Unit 1 before proposed change | - | 9.08E-06/yr | - | 5.18E-07/yr |
| Results with 7 days additional Train B ECW AOT | 5.47E-07 | 9.63E-06/yr | 4.02E-08 | 5.58E-07/yr |
| RG 1.174 Criteria | <1.0E-06 | <1.0E-04/yr. | <1.0E-07 | <1.0E-05/yr |

These values are within the criteria established in RG 1.174.

RG 1.182 Evaluation

RG 1.182 and RG 1.160 are used in conjunction with NUMARC 93-01 as standards for implementation of 10 CFR 50.65 (Maintenance Rule). Section 11.3.7.2 of NUMARC 93-01 includes recommended quantitative risk action thresholds for maintenance activities, as reproduced in the table below:

| Incremental [Conditional] Core Damage Probability (ICCDP)¹ | | Incremental [Conditional] Large Early Release Probability (ICLERP)¹ |
|--|--|---|
| > 1E-05 | Configuration should not normally be entered voluntarily | > 1E-06 |
| 1E-06 – 1E-05 | <ul style="list-style-type: none"> • Assess non-quantifiable factors • Establish risk management actions | 1E-07 – 1E-06 |
| < 1E-06 | Normal work controls | < 1E-07 |

Note 1: For clarity and consistency of terms, the term “conditional” is added to the table heading. The calculated ICCDP includes the quantified effect of the maintenance configuration (condition).

The ICCDP for the proposed change is $5.47E-07$, which is less than $1E-06$ and the ICLERP for the proposed change is $4.02E-08$, which is less than $1E-07$.

PRA Evaluation Conclusions

The final results of the risk evaluation were compared with the risk significance criteria from RGs 1.174 and 1.182. The calculated values for ICCDP and ICLERP demonstrate that the proposed one-time Train B ECW AOT extension has a very small quantitative impact on plant risk.

Station risk levels remain low (near baseline values) and manageable with sufficient margin to allow remedial and corrective actions to be implemented in the event unplanned equipment outages occur. Therefore, it is concluded that, based on the very small quantitative plant risk impact and the compensatory measures described below, the risk associated with the Train B ECW outage does not impose a significant risk to public health and safety.

It should be noted that Unit 1 Pressurizer Power Operated Relief Valve 0656A is inoperable due to excessive seat leakage and is isolated with power available in accordance with Technical Specification 3.4.4 Action a. This condition has a negligible impact on plant risk and is included in the evaluation performed for this application.

Compensatory Measures

The compensatory measures described below serve to further reduce the risk of continued power operation. While some of these measures are either explicitly modeled in the PRA or are considered in the PRA, additional measures not modeled or considered and described below will be taken to compensate for this specific condition.

This very small change in risk must be balanced against the risk associated with the alternative of shutting down the plant to effect the repairs. While not quantifiable at the South Texas Project (the South Texas Project does not have a quantitative transition and shutdown model), there are risks associated with manually shutting the plant down from a stable condition. They include challenging systems that are currently in standby and requiring the operation of the decay heat removal systems with one train without its full complement of support systems. Therefore, the relative safety significance of the proposed one-time Technical Specification change is low and the potential consequences of the proposed request are preferable to the potential consequences associated with plant shutdown.

Loss of electrical power is an important risk consideration at the South Texas Project and grid reliability is a factor in assessing its contribution to risk. The South Texas Project has contacted the Independent System Operator and confirmed the stability of the power

grid and that there are no unusual factors (including weather conditions) that need to be considered in this evaluation.

The proposed action conforms to the requirements of the STP Configuration Risk Management Program (CRMP). South Texas will continue to use the CRMP to evaluate and monitor the risk significance associated with extending the Train B ECW outage. The STP CRMP satisfies the Maintenance Rule requirements as specified in 10CFR50.65(a)(4). The following compensatory measures have already been implemented and will continue to be implemented during the maintenance on Train B ECW:

- Station Management has been briefed on this subject.
- STPNOC will not perform any planned voluntary maintenance in Unit 1 during the extended AOT (EAOT) that would increase the ICCDP.
- STPNOC will reduce the duration of maintenance on ECW Pump 1B as much as practical by using a 24-hour work schedule, dedicated project management, and dedicated support for the activity (e.g., engineering).
- STPNOC will increase station awareness via daily status meetings throughout the EAOT.

In addition to the risk management actions listed above, the following additional compensatory actions have been implemented and will be continued during the EAOT for Train B ECW.

1. STPNOC has notified the transmission/distribution service providers (TDSPs) of the condition and of the maintenance restrictions required for the STP switchyard.
2. STPNOC has installed EAOT protected train signs.
3. STPNOC will not perform any planned maintenance on required systems, subsystems, trains, components, and devices that depend on the A or C trains of equipment during the EAOT. *
4. STPNOC will not perform any planned maintenance that could result in an inoperable open containment penetration. *
5. STPNOC will purge containment only for pressure control and only for short duration. *
6. STPNOC will not perform any planned maintenance on the Unit 1 Technical Support Center Diesel Generator. *
7. STPNOC will not perform any planned maintenance on Load Center 1W. *
8. STPNOC will not perform any planned maintenance on Motor Control Center 1G8. *
9. STPNOC will not perform any planned maintenance on the Positive Displacement Charging Pump. *

10. STPNOC will ensure that no planned maintenance is performed on the Emergency Transformer or the 138KV Blessing to STP and Lane City to Bay City lines. *
11. STPNOC will ensure that no maintenance activities are performed in the switchyard that could directly cause a Loss of Offsite Power event unless required to ensure the continued reliability and availability of the offsite power sources. *
12. STPNOC will not perform any planned maintenance on the turbine-driven auxiliary feedwater pump. *
13. STPNOC has verified that the station is not under hurricane, tornado, or flood watches or warnings.
14. STPNOC has verified with the TDSP that no adverse weather conditions exist in the areas of the offsite power supplies that challenge the stability of grid.
15. STPNOC will not perform any planned maintenance on Switchgear 1L or 1K. *
16. STPNOC will consider approval of all unscheduled emergent work in accordance with the STP work process program.

* Explicitly modeled in the STP PRA.

Furthermore, the physical arrangement of the STP facility allows for the capability to cross-connect ECW trains to supply selected ECW loads and supply power to an ESF bus from a cross-train ESF diesel generator. These cross-tie capabilities are proceduralized and Operations will review these procedures prior to implementation of this amendment request.

It should be noted that STPNOC will continue to perform surveillance testing that does not increase the ICCDP.

Based on the above evaluation and the planned compensatory measures, the South Texas Project concludes that Station risk levels are consistent with RG 1.174, 1.160, 1.182 and NUMARC 93-01 requirements, and remain manageable with sufficient margin to allow remedial and corrective actions to be implemented in the event unplanned equipment outages occur. Therefore, it is concluded that, based on the very small quantitative plant risk impact and the compensatory measures described above, the risk associated with the extended Unit 1 Train B ECW Allowed Outage Time does not impose a significant risk to public health and safety, and the proposed one-time change is justified.

5.0 Regulatory Evaluation

5.1 Determination of No Significant Hazards:

STPNOC has reviewed the proposed amendment request and determined that its adoption involves no significant hazards consideration, as discussed below.

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

Response: No.

Since only one train of components is affected by the condition and single failure is not considered while a plant is in an LCO ACTION, the operable ESF trains are adequate to maintain the plant's design basis. Thus, this condition will not alter assumptions relative to the mitigation of an accident or transient event.

Considering compensatory action and risks involved in a plant shutdown, STP has determined that there is no significant risk associated with extending the allowed outage time for the Essential Cooling Water System and the systems it supports for an additional 7 days.

Based on this evaluation, there is no significant increase in the probability or consequence of an accident previously evaluated.

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

Response: No.

This proposed action only extends an allowed outage time and will not physically alter the plant. No new or different type of equipment will be installed by this action. The changes in methods governing normal plant operation are consistent with current safety analysis assumptions. No change to the system as evaluated in the South Texas Project safety analysis is proposed.

Therefore, this proposed action does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does the proposed change involve a significant reduction in a margin of safety?

Response: No.

Considering compensatory action and risks involved in a plant shutdown, STP has determined that there is no significant risk associated with extending the allowed outage time for the Essential Cooling Water System and the systems it supports for an additional 7 days.

Based on the availability of redundant systems, the compensatory actions that have been taken, and the extremely low probability of an accident that could not be

mitigated by the available systems, STPNOC concludes that there is no significant reduction in the margin of safety.

Based upon the analysis provided herein, the proposed amendments do not involve a significant hazards consideration.

5.2 Applicable Regulatory Requirements/Criteria

With the implementation of the proposed change, STP Unit 1 continues to meet applicable design criteria. The proposed change is a one-time extension to the TS AOT. It does not affect the design basis of the plant. In addition, STP Unit 1 will remain within the scope of the TS Limiting Conditions for Operation and is still subject to the requirements of the action statements.

Since the mid-1980s, the NRC has been reviewing and granting improvements to TS that are based, at least in part, on PRA insights. In its final policy statement on TS improvements of July 22, 1993, the NRC stated that it expects that licensees, in preparing their Technical Specification related submittals, will utilize any plant-specific PSA (probabilistic safety assessment) or risk survey and any available literature on risk insights and PSAs. Similarly, the NRC staff will also employ risk insights and PSAs in evaluating Technical Specification related submittals. Further, as a part of the Commission's ongoing program of improving Technical Specifications, it will continue to consider methods to make better use of risk and reliability information for defining future generic Technical Specification requirements. The NRC reiterated this point when it issued the revision to 10 CFR 50.36, "Technical Specifications," in July 1995.

In August 1995, the NRC adopted a final policy statement on the use of PRA methods in nuclear regulatory activities that improve safety decision making and regulatory efficiency. The PRA policy statement included the following points:

1. The use of PRA technology should be increased in all regulatory matters to the extent supported by state-of-the-art in PRA methods and data and in a manner that compliments the NRC's deterministic approach and supports the NRC's traditional defense-in-depth philosophy.
2. PRA and associated analyses (e.g., sensitivity studies, uncertainty analyses, and importance measures) should be used in regulatory matters, where practical within the bounds of the state-of-the-art, to reduce unnecessary conservatism associated with current regulatory requirements.
3. PRA evaluations in support of regulatory decisions should be as realistic as practicable and appropriate supporting data should be publicly available for review.

In conclusion, based on the deterministic and PRA considerations discussed in this submittal, (1) there is reasonable assurance that the health and safety of the public will

not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

6.0 Environmental Evaluation

STPNOC has evaluated the proposed changes and determined the changes do not involve (1) a significant hazards consideration, (2) a significant change in the types or significant increase in the amounts of any effluents that may be released offsite, or (3) a significant increase in the individual or cumulative occupational exposure. Accordingly, the proposed changes meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9), and an environmental assessment of the proposed changes is not required.

Commitments

As part of this submittal, STPNOC makes the following commitments:

The following compensatory measures have already been implemented and will be continued during the maintenance on Train B ECW:

- Station Management has been briefed on this subject.
- STPNOC will not perform any planned voluntary maintenance in Unit 1 during the extended AOT (EAOT) that would increase the ICCDP.
- STPNOC will reduce the duration of maintenance on ECW Pump 1B as much as practical by using a 24-hour work schedule, dedicated project management, and dedicated support for the activity (e.g., engineering).
- STPNOC will increase station awareness via daily status meetings throughout the EAOT.

In addition to the risk management actions listed above, the following additional compensatory actions have been implemented and will be continued during the EAOT for Train B ECW:

1. STPNOC has notified the transmission/distribution service providers (TDSPs) of the condition and of the maintenance restrictions required for the STP switchyard.
2. STPNOC has installed EAOT protected train signs.
3. STPNOC will not perform any planned maintenance on required systems, subsystems, trains, components, and devices that depend on the A and C trains of equipment during the EAOT. *
4. STPNOC will not perform any planned maintenance that could result in an inoperable open containment penetration. *
5. STPNOC will purge containment only for pressure control and only for short duration. *
6. STPNOC will not perform any planned maintenance on the Unit 1 Technical Support Center Diesel Generator. *
7. STPNOC will not perform any planned maintenance on Load Center 1W. *
8. STPNOC will not perform any planned maintenance on Motor Control Center 1G8. *
9. STPNOC will not perform any planned maintenance on the Positive Displacement Charging Pump. *
10. STPNOC will ensure that no planned maintenance is performed on the Emergency Transformer or the 138KV Blessing to STP and Lane City to Bay City lines. *

11. STPNOC will ensure that no maintenance activities are performed in the switchyard that could directly cause a Loss of Offsite Power event unless required to ensure the continued reliability and availability of the offsite power sources. *
12. STPNOC will not perform any planned maintenance on the turbine-driven auxiliary feedwater pump. *
13. STPNOC has verified that the station is not under hurricane, tornado, or flood watches or warnings.
14. STPNOC has verified with the TDSP that no adverse weather conditions exist in the areas of the offsite power supplies that challenge the stability of grid.
15. STPNOC will not perform any planned maintenance on Switchgear 1L or 1K. *
16. STPNOC will consider approval of all unscheduled emergent work in accordance with the STP work process program.

* Explicitly modeled in the STP PRA.

Furthermore, the physical arrangement of the STP facility allows for the capability to cross-connect ECW trains to supply selected ECW loads and supply power to an ESF bus from a cross-train ESF diesel generator. These cross-tie capabilities are proceduralized and Operations will review these procedures prior to implementation of this amendment request.

It should be noted that STPNOC will continue to perform surveillance testing that does not increase the ICCDP.

Annotated Technical Specification Page

PLANT SYSTEMS

3/4.7.4 ESSENTIAL COOLING WATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.4 At least three independent essential cooling water loops shall be OPERABLE.

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

ACTION:

With only two essential cooling water loops OPERABLE, restore at least three loops 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.

SURVEILLANCE REQUIREMENTS

4.7.4 At least three essential cooling water loops shall be demonstrated OPERABLE:

- a. At least once per 31 days by verifying that each valve (manual, power-operated, or automatic) servicing safety-related equipment that is not locked, sealed, or otherwise secured in position is in its correct position;
- b. At least once per 18 months during shutdown, by verifying that:
 - 1) Each Essential Cooling Water automatic valve in the flow path that is not locked, sealed, or otherwise secured in position, actuates to the correct position on an actual or simulated actuation signal, and
 - 2) Each Essential Cooling Water pump starts automatically on an actual or simulated signal,

* On a one-time basis, the Allowed Outage Time for Unit 1 Train B Essential Cooling Water and for those Technical Specification systems supported by Train B Essential Cooling Water (Technical Specifications 3.5.2, 3.5.6, 3.6.2.1, 3.6.2.3, 3.7.3, 3.7.7, and 3.7.14), is extended to 14 days. This one-time extension expires January 18, 2005 at 0400 hours.