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

September 30, 1998
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File No.: G20.02.01
G21.02.01
10CFR50.90

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

South Texas Project
Units 1 and 2
Docket Nos. STN 50-498 and STN 50-499
Proposed Amendment to Technical Specifications to Reflect
Replacement Steam Generator Tube Inspection Surveillances Differences

Reference: 1) Letter from L. E. Martin to U.S. Nuclear Regulatory Commission dated May 7, 1998, (ST-NOC-AE-00159)

The South Texas Project Nuclear Operating Company proposes to amend the South Texas Project Operating Licenses NPF-76 and NPF-80 by incorporating the attached changes into the Technical Specifications. These proposed changes are associated with the Replacement Steam Generator Project. The existing Unit 1 Westinghouse Model E steam generators are currently planned to be replaced with Westinghouse Model Δ94 steam generators in May, 2000. The new Δ94 steam generators employ different tubing material with a different nominal tube diameter and thickness, and a different tube support plate design than the existing Model E steam generators. As a result of these design differences, the analyses performed for use of voltage-based repair criteria on tube-to-tube support plate intersections, F* alternate repair criteria on Unit 1 tube-to-tubesheet joints, and tube repair by laser-welded sleeving are not applicable to the Δ94 steam generators. Therefore, steam generator tube inspection surveillance requirement changes are necessary to limit the applicability of provisions for voltage-based repair criteria and laser-welded sleeving to existing Model E steam generators only, and to delete the provision allowing use of the F* alternate repair criteria. These proposed changes also clarify the inservice inspection schedule as it pertains to Δ94 steam generators. Furthermore, the proposed changes to the Technical Specifications included within are defined in terms of the appropriate steam generator model rather than by the South Texas Project unit in which the steam generators are installed.

Further proposed changes to the Technical Specifications pertaining to the Δ94 steam generators are either currently under development or have already been submitted for Nuclear Regulatory Commission approval. A general description of these additional proposed changes to the

Technical Specifications, as well as other planned submittals to support licensing for the Δ94 steam generators, is contained in Reference 1.

The South Texas Project has reviewed the attached proposed amendment in accordance with 10CFR50.92 and has determined that the amendment does not involve a significant hazards consideration. Additionally, it has been 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 Project Plant Operations Review Committee has reviewed the proposed changes and recommended their approval. Also, the South Texas Project Nuclear Safety Review Board has reviewed and approved the proposed change.

The required affidavit, along with a Safety Evaluation and No Significant Hazards Consideration Determination associated with the proposed changes, and the marked-up Technical Specification pages are included as attachments to this letter.

The South Texas Project is providing the State of Texas with a copy of this proposal in accordance with 10CFR50.91(b). Also, it has been determined that this document does not contain any new licensing commitments.

If there are any questions regarding this proposed amendment, please contact either Mr. M. A. McBurnett at (512) 972-7206 or me at (512) 972-8787.

T. H. Cloninger
Vice President,
Engineering and Technical Services

BJS/

Attachments:
1. Affidavit
2. Technical Specification Changes
3. Determination of No Significant Hazards Consideration
4. Technical Specification Marked-Up Pages

cc:

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Attention: Document Control Desk
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ATTACHMENT 1

AFFIDAVIT

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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

AFFIDAVIT

I, T.H. Cloninger, being duly sworn, hereby depose and say that I am the Vice President, Engineering and Technical Services of the South Texas Project; that I am duly authorized to sign and file with the Nuclear Regulatory Commission the attached proposed amendment to the Technical Specifications; 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.

T. H. Cloninger
Vice President,
Engineering and Technical Services

STATE OF TEXAS)
)
COUNTY OF MATAGORDA)

Subscribed and sworn to before me, a Notary Public in and for the State of Texas, this 30th day of September, 1998.

LINDA RITTENBERRY
Notary Public, State of Texas
My Commission Expires
OCT. 9, 2001

Linda Rittenberry
Notary Public in and for the
State of Texas

ATTACHMENT 2

TECHNICAL SPECIFICATION CHANGES

BACKGROUND

The South Texas Project will replace the original Westinghouse Model E steam generators with Westinghouse Model Delta (Δ) 94 steam generators. Unit 1 steam generator replacement is scheduled to occur at the end of Cycle 9, currently planned for the spring of the year 2000. Unit 2 replacement is scheduled to occur at the end of Cycle 9, currently planned for the year 2002. Thus, South Texas Project will be operating with two different models of steam generators for a period of time.

The South Texas Project proposes to amend Technical Specification Surveillance Requirements (SRs) for Specification 3/4.4.5, "Steam Generator" to support steam generator replacement. This proposed change limits the applicability of provisions for voltage-based repair criteria and laser-welded sleeving to Model E steam generators only (not applicable to the Δ94 steam generators), and deletes the F* alternate repair criteria. It also clarifies the inservice inspection schedule as it pertains to replacement steam generators (Model Δ94).

As currently docketed, South Texas Project has the following steam generator tube repair criteria methodologies, either in place or requested, as noted:

Tube Repair Criteria Method	Unit 1	Unit 2
F* Alternate Repair	Approved / In Place	Not Applicable
Voltage-Based Repair (1 Volt)	Approved / In Place	Approval Requested
Voltage-Based Repair (3 Volt)	Approval Never Requested	Approval May Be Requested
Laser-Welded Sleeving	Approved / In Place	Approved / In Place
Electro Sleeving Repair	Request Withdrawn	Request Withdrawn

Please note that the approval request to utilize the Voltage-Based Repair Criteria (1 Volt) for Unit 2 has been submitted to the NRC (Reference 1). Also, if the South Texas Project requests NRC approval to utilize Voltage-Based Repair Criteria (3 Volt) for Unit 2, this Technical Specification change request will require revision to note this tube repair methodology applicability to Model E steam generators only.

The Δ94 steam generators employ different tubing material with a different nominal tube diameter and thickness, and a different tube support plate design than the Model E steam generators. As a result of these design differences, the analyses performed for use of voltage-based repair criteria for tube-to-tube support plate intersections, F* alternate repair criteria for tube-to-tubesheet joints, and tube repair by laser-welded sleeving are not applicable to the Δ94 steam generators.

The technical/topical reports and correspondence submitted by South Texas Project in association with the license amendments for F* alternate repair criteria, the voltage-based repair criteria, and laser-welded sleeving contain various commitments associated with the implementation of these license amendments. Following steam generator replacement in each

respective unit, these commitments will no longer apply to that unit. The tubing of the fabricated Δ94 steam generators will be examined by eddy current methods in accordance with ASME Section XI requirements (i.e., preservice inspection will be performed).

This proposed amendment has been drafted on the assumption that the Unit 2 Voltage-Based Repair Criteria (1 Volt) amendment request (Reference 1) will be approved and in place at the time this proposed change is implemented. The differences are labeled to reflect applicability to Model E steam generators only, rather than the unit in which the steam generators are installed. Therefore, these changes in the Technical Specifications are applicable to both units at South Texas Project.

DESCRIPTION OF PROPOSED CHANGES

The proposed steam generator tube inspection surveillance-related Technical Specification changes (and associated BASES changes) resulting from replacement of the existing Model E steam generators with Δ94 steam generators are as follows:

- SR 4.4.5.2, Steam Generator Tube Sample Selection and Inspection
- SR 4.4.5.3, Inspection Frequencies
- SR 4.4.5.4, Acceptance Criteria
- SR 4.4.5.5, Reports
- BASES for Specification 3/4.4.5, Steam Generators
- BASES for Specification 3/4.4.6.2, Operational Leakage

These proposed Technical Specification changes are permanent changes and are described as follows:

Discussion

The Δ94 steam generators employ different tubing material with a different nominal tube diameter and thickness, and a different tube support plate design than the Model E steam generators. As a result of these design differences, the analyses performed for use of voltage-based repair criteria for tube-to-tube support plate intersections, F* alternate repair criteria for Unit 1 tube-to-tubesheet joints, and tube repair by laser-welded sleeving are not applicable to the Δ94 steam generators. The proposed changes delete provisions for the F* alternate repair criteria, and make the provisions in the Technical Specifications for voltage-based repair criteria and laser-welded sleeving applicable only to Model E steam generators, not to the Δ94 steam generators. Also, clarification of the Technical Specification describing the first inservice inspections is necessary to reflect steam generator replacement. In addition, the Steam Generator Tube Inspection Report requirements must be similarly revised to make the reporting requirements added for the voltage-based repair criteria applicable to Model E steam generators only. Finally,

unrelated to the Replacement Steam Generator Project, an incorrect referenced Specification number is corrected in SR 4.4.5.2.b.3, and a superfluous "and" is deleted from SR 4.4.5.4.a.9. These proposed changes are administrative in nature.

The Bases section for Steam Generators has also been revised, as appropriate, to reflect the above Technical Specification changes. In addition, the Bases section for Operational Leakage, that discusses more restrictive operating leakage limits (for existing Model E steam generators), has been revised to specify that even with installation of new Δ94 steam generators, this more restrictive operating leakage limit will still apply.

Proposed Changes:

- On Page 3/4 4-12, SR 4.4.5.2, the requirement in the fourth sentence to sample 20% of the total number of sleeve-repaired tubes in all steam generators is made applicable to Model E steam generators only.

- On Page 3/4 4-13, SR 4.4.5.2.b.3, revise the referenced Specification number in the first line.

- On Page 3/4 4-13, SR 4.4.5.2.b.4, the requirements for inspection of indications left in service as a result of application of the voltage-based repair criteria are made applicable to Model E steam generators only.

- On Page 3/4 4-13, delete SR 4.4.5.2.d (F*- repaired tube inspection requirement) since it will no longer apply when Δ94 steam generators are installed in Unit 1.

- On Page 3/4 4-13, SR 4.4.5.2.e, the eddy current inspection requirements for the voltage-based repair criteria are made applicable to Model E steam generators only.

- On Page 3/4 4-14, SR 4.4.5.3.a, the wording regarding the timing of the initial inservice inspection is amended to address the first inservice inspection following steam generator replacement. Also, a note is added following this SR paragraph to clarify that no steam generator inservice inspection is required during the replacement outage.

- On Page 3/4 4-15, SR 4.4.5.4.a.7, the plugging or repair limit definition is revised. Tubes in Δ94 steam generators will be required to be plugged for imperfections exceeding the plugging or repair limit of 40% of tube wall thickness. Plugging limits for imperfections appearing in sleeves are applicable to Model E steam generators only (see 4.4.5.4.a.13). The exception for tube-to-tube support plate intersections which refers to the voltage-based repair limit defined in 4.4.5.4.a.12 is made applicable to Model E steam generators only.

- On Page 3/4 4-15, SR 4.4.5.4.a.9, delete "and" at the end of the last line (editorial change).

- On Page 3/4 4-16, SR 4.4.5.4.a.11 is deleted since the F* alternate repair criteria will not apply to Δ94 steam generators or Unit 2 Model E steam generators.

- On Page 3/4 4-16, SR 4.4.5.4.a.12, the tube support plate plugging limit definition is revised to only apply to Model E steam generators since Δ94 steam generator tubes will be required to be plugged for imperfections exceeding the plugging or repair limit of 40% of tube wall thickness.

- On Page 3/4 4-16a, SR 4.4.5.4.a.12.d is deleted since the voltage-based repair criteria is not applicable to Δ94 steam generators and the exclusion zone defined in this section is specific to Unit 1.

- On Page 3/4 4-16a, SR 4.4.5.4.a.13, the tube repair definition is revised to make tube repair applicable to Model E steam generators only.

- On Page 3/4 4-16a, SR 4.4.5.4.b, tube repair applicability is revised to identify that it is applicable to Model E steam generators only.

- On Page 3/4 4-16b, SR 4.4.5.5.d, the NRC staff notification requirements related to application of the voltage-based repair criteria are revised to specify applicability to Model E steam generators only.

- On Page 3/4 4-18a, Table 4.4-3, table title is revised to indicate table applicability to Model E steam generators only.

- On Bases Page B 3/4 4-2a, Bases 3/4.4.5, the text discussing tube repair in the second paragraph (sixth sentence), and in the third paragraph (third sentence), is revised to indicate that repair by sleeving is applicable to Model E steam generators only.

- On Bases Page B 3/4 4-2a, Bases 3/4.4.5, the text specifying how defective tubes are repaired in the second paragraph (seventh sentence) is revised to indicate applicability only to Model E steam generators.

- On Bases Page B 3/4 4-2a, Bases 3/4.4.5, the text discussing sleeve plugging limit in the third paragraph (fifth sentence) is revised to indicate applicability only to Model E steam generators.

- On Bases Page B 3/4 4-3, Bases 3/4.4.5, delete the first two complete paragraphs discussing the F* alternate repair criteria since it will no longer apply when Δ94 steam generators are installed in Unit 1.

- On Bases Page B 3/4 4-3, Bases 3/4.4.5, revise the first line of the third complete paragraph to indicate applicability to Model E steam generators only.

- On Bases Page B 3/4 4-3, Bases 3/4.4.5, revise the first line of the fourth paragraph to indicate applicabilty only to Model E steam generators.

- On Bases Page B 3/4 4-3a, Bases 3/4.4.5, revise the first paragraph to correct the SR number referenced and to indicate applicability only to Model E steam generators.

- On Bases Page B 3/4 4-3a, Bases 3/4.4.5, revise the first sentence of the second paragraph to indicate applicability only to Model E steam generators.

- On Bases Page B 3/4 4-4, Bases 3/4.4.6.2, revise the first paragraph on this page to explain that the more restrictive operating leakage limits were implemented in conjunction with voltage-based repair criteria and laser-welded sleeving applications for Model E steam generators, but will still apply for the new Δ94 steam generators.

SAFETY EVALUATION

1.0 Introduction

The surveillance requirements for inspection of the steam generator tubes ensure that the structural integrity of this portion of the Reactor Coolant System (RCS) is maintained. This is necessary to ensure that the structural and leakage integrity of the steam generator (tubes) are acceptable for continued service.

The South Texas Project Technical Specifications originally defined the steam generator tube plugging limit as "the imperfection depth at or beyond which the tube shall be removed from service and is equal to 40% of the nominal tube wall thickness." Later, alternate repair criteria (voltage-based repair criteria at tube-to-tube support plate intersections and F* alternate repair criteria at the hard-rolled tube-to-tubesheet joint in Unit 1) were developed for Model E steam generator tubes based on analysis performed to the requirements of Regulatory Guide 1.121 and Generic Letter 95-05. Amendments Nos. 82 and 83 to the South Texas Project Unit 1 Operating License changed the steam generator tube surveillance technical specifications for Unit 1 to implement the voltage-based repair criteria at tube-to-tube support plate intersections and to implement the F* criteria at the hard-rolled tube-to-tubesheet joint. As discussed in the Background section, this change presumes that a future amendment to incorporate the Unit 2 Voltage-Based Repair Criteria (1 Volt) will already be in place when this change is implemented.

Originally, the only remedy for a defective tube was plugging. Later, the tube repair mechanism of installing laser-welded sleeves was developed. Sleeving is a process which re-establishes the primary-to-secondary pressure retaining boundary of a steam generator tube containing degradation exceeding the repair limit. Installation of the sleeve provides a leaktight boundary that spans the defective area and restores the structural integrity of the tubing. Amendment No. 90 to the South Texas Project Unit 1 Operating License and Amendment No. 77 to the South Texas Project Unit 2 Operating License changed the steam generator tube surveillance technical specifications to implement the Westinghouse laser-welded sleeving process as an acceptable means of repair for defective tubes.

2.0 Evaluation

The Δ94 steam generators have several design differences that were made to significantly improve the resistance to, or to eliminate, tube degradation mechanisms experienced by the Model E steam generators. These differences render the analyses which were the basis for the tube support plate voltage-based repair criteria, the F* alternate repair criteria, and laser-welded sleeving, not applicable to the Δ94 steam generators.

The Model E steam generators have tube support plates with drilled tube holes. The Δ94 steam generators have tube support plates with broached tube holes. The broached tube holes provide for open flow around the tube at the support plate intersections, with three short flat-contact points remaining to provide adequate support for the tube for all design conditions. The Model E steam generator tubes are 0.750" diameter, 0.043" thick mill annealed Alloy 600. (Note: fifteen tubes installed in Unit 2 steam generator "D" are thermally treated Alloy 600). The Δ94 steam generators tubes are 11/16" diameter, 0.040" thick thermally treated Alloy 690 tubes. The basis for the Unit 1 South Texas Project voltage-based repair criteria presumes the tubing diameter, tubing thickness, tubing material and tube-to-tube support plate intersection design used in the Model E steam generators. Generic Letter 95-05, "Voltage-Based Repair Criteria for Westinghouse Steam Generator Tubes Affected by Outside Diameter Stress Corrosion Cracking" is specific to Westinghouse steam generators with Alloy 600 tubing material and drilled-hole tube support plates, and therefore does not apply to the Δ94 steam generators. Accordingly, the Technical Specification changes implemented by Amendment No. 83 to the South Texas Project Unit 1 Operating License, which changed the steam generator tube surveillance Technical Specifications to implement the voltage-based repair criteria for Unit 1, will not apply after steam generator replacement. Similarly, the pending Unit 2 Voltage-Based Repair Criteria (1 Volt) amendment also will not apply after steam generator replacement on Unit 2. Restoring the original Technical Specification repair limit for applicability to indications at tube-to-tube support plate intersections after installation of the Δ94 steam generators is therefore appropriate.

The basis for laser-welded sleeving at South Texas Project presumes the tubing diameter, thickness and material used in the Model E steam generators. Accordingly, the Technical

Specification changes implemented by Amendment No. 90 to the South Texas Project Unit 1 Operating License and Amendment 77 to the South Texas Project Unit 2 Operating License, which changed the steam generator tube surveillance Technical Specifications to implement the Westinghouse laser-welded sleeving process for both South Texas Project units, do not apply after installation of the Δ94 steam generators. Restoring the original Technical Specification remedy for defective tubes after installation of the Δ94 steam generators is therefore appropriate.

The Unit 1 Model E steam generator tube-to-tubesheet joint was accomplished using a full-depth hard roll. The Δ94 steam generator tube-to-tubesheet joint is accomplished using full-depth hydraulic expansion. This design difference results in lower stresses in the expanded tubing and expansion transition which reduces the likelihood of stress corrosion cracking in this area; however, the basis for the F* alternate repair criteria presumes that the tube-to-tubesheet joint is a full-depth hard roll. Accordingly, the Technical Specification changes implemented by Amendment No. 82 to the South Texas Project Unit 1 Operating License will not apply after steam generator replacement. Restoring the original Technical Specification repair limits for applicability to indications in the tubesheet area for Unit 1 after installation of the Δ94 steam generators is therefore appropriate.

The plugging/repair limits for the Δ94 steam generators will consist solely of the through-wall criteria and will require that tubes be plugged (not sleeved) when imperfections exceed the plugging limit of 40% of the tube nominal wall thickness. ASME Section XI, 1989 edition, provides the depth of an allowable outside diameter (OD) flaw for tubes in service. The Δ94 steam generator has tubing fabricated from SB-163 Alloy UNS N06690 (Alloy 690) inspected per the requirements of ASME Section III, 1989 edition, NB-2550. For such tubing, ASME Section XI, IWB-3521.1 defines the depth of allowable indications: for tubing having a radius to thickness (r/t) ratio of less than 8.70, the depth of an allowable OD flaw shall not exceed 40% of the tube wall thickness. The Δ94 steam generator tubing has an r/t ratio less than 8.70 using either the inside diameter or the outside diameter. Using the outside diameter is conservative:

$$r/t = (OD/2)/(t) = (0.688"/2)/(.040") = 8.60$$

In addition, analysis per Regulatory Guide 1.121 has been performed (Reference 2) to further substantiate the validity of the 40% plugging limit for Δ94 steam generators. Therefore, the original 40% plugging limit should be applied to the Δ94 steam generators.

As part of the license amendment for the voltage-based repair criteria for Unit 1, and later as part of the license amendment for laser-welded sleeving for Unit 2, the primary-to-secondary leakage limit of Technical Specification 3.4.6.2.d was lowered from 500 gpd in any single steam generator (combined leakage limited to 1 gpm or 1440 gpd) to 150 gpd in any single steam generator. This change was made to provide increased margin (i.e., earlier shutdown) following identification of increasing primary-to-secondary leakage, reducing the likelihood that an occurrence of low level primary-to-secondary leakage might propagate to a tube rupture event. Although this change was made in association with the implementation of the license amendments for voltage-based repair

criteria and laser-welded sleeving on existing Model E steam generators, no change (relaxation) to Technical Specification 3.4.6.2.d is requested in this submittal to account for the new Δ94 steam generators. South Texas Project proposes to retain the increased margin against tube rupture events.

Clarifications to the inspection frequency requirements of SR 4.4.5.3 are proposed. The existing wording of SR 4.4.5.3.a includes a specific one-time inservice inspection interval requirement which is only applicable to the first cycle at the beginning of unit life. Since steam generator replacement is analogous to initial unit start-up as related to the steam generator surveillance, it is appropriate to update the wording here to clearly indicate that the same initial interval requirement applies following steam generator replacement. Further, a note is added to clarify that no steam generator inservice inspection will be performed during the steam generator replacement outage. Inspecting the Model E steam generators as they are being removed from the plant would serve little purpose, since the ultimate corrective action for any degradation found is being implemented (i.e., replacement). Inservice inspection of the new Δ94 steam generators during the replacement outage is not possible, since they will not have been in service. The note will ensure that no confusion exists in the event that more than 24 calendar months pass between the last inservice inspection of the Model E steam generators and the first inservice inspection of the Δ94 steam generators.

3.0 Implementation

This set of Technical Specifications changes must be implemented following the replacement of the Unit 1 Model E steam generators with Model Δ94 steam generators. These changes should be implemented prior to Unit 1 operation with the Δ94 steam generators installed.

To allow for timely implementation of these proposed Technical Specification changes, the NRC is requested to review and approve these changes by November, 1999.

4.0 References

1. NOC-AE-000097, Letter from T.H. Cloninger to NRC Document Control Desk dated April 2, 1998, "Proposed Amendment to Incorporate Voltage-Based Repair Criteria into Technical Specification 3.4.5".

2. WCAP-15095 (Priority Class 2C) and WCAP-15096 (Priority Class 3), "Steam Generator Tube Plugging Limit Analysis for South Texas Unit 1 Delta 94 Steam Generators".

ATTACHMENT 3

DETERMINATION OF NO SIGNIFICANT HAZARDS CONSIDERATION

DETERMINATION OF NO SIGNIFICANT HAZARDS CONSIDERATION

South Texas Project has evaluated this proposed amendment and determined that it involves no significant hazards considerations. According to Title 10 Code of Federal Regulations Section 50 Subsection 92 Paragraph c [10 CFR 50.92(c)], a proposed amendment to an operating license involves no significant hazards consideration if operation of the facility in accordance with the proposed amendment does not:

1. Involve a significant increase in the probability or consequences of an accident previously evaluated; or

2. Create the possibility of a new or different kind of accident from any accident previously evaluated; or

3. Involve a significant reduction in a margin of safety.

INTRODUCTION

South Texas Project proposes to revise Unit 1 and 2 Technical Specification (TS) Section 3/4.4.5, "Steam Generator" Surveillance Requirements. The installation of the new Δ94 steam generators at the South Texas Project Unit 1 and 2 necessitates changes to the steam generator tube sample selection and inspection requirements; inservice inspection frequencies; acceptance criteria; and inspection reporting requirements.

NO SIGNIFICANT HAZARDS ANALYSIS

1. The proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

Eliminating provisions in the Technical Specifications for application of the voltage-based repair criteria, the F* alternate repair criteria, and laser-welded sleeves for the Δ94 steam generators is an administrative adjustment, since the voltage-based repair criteria, the F* alternate repair criteria, and laser-welded sleeves are not applicable to the Δ94 steam generators.

The Δ94 steam generator tubing is designed and evaluated consistent with the margins of safety specified in ASME Code Section III. The program for periodic inservice inspection of steam generators monitors the integrity of the steam generator tubing to ensure that there is sufficient time to take proper and timely corrective action if tube degradation is present.

The ASME Section XI basis for the 40% through-wall plugging limit is applicable to the Δ94 steam generators just as it was applicable to the Model E steam generators prior to the implementation of voltage-based repair criteria, F* alternate repair criteria, and laser-welded sleeves. In addition, analysis per Regulatory Guide 1.121 (WCAP-15095 / WCAP-15096) has confirmed the applicability of the 40% plugging limit for the Δ94 steam generators.

The changes also clarify that inservice inspection is required following steam generator replacement, and that inservice inspection is not required during the steam generator replacement outage. This is an administrative change in that it only provides clarification of requirements written without steam generator replacement considerations, and therefore, reduces the possibility for confusion in the application of the subject technical specification provisions. Therefore, these proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. **The proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.**

Eliminating provisions in the Technical Specifications for application of the voltage-based repair criteria, the F* alternate repair criteria, and laser-welded sleeves to the Δ94 steam generators is an administrative adjustment, since the voltage-based repair criteria, the F* alternate repair criteria, and laser-welded sleeves are not applicable to the Δ94 steam generators.

The changes also clarify that inservice inspection is required following steam generator replacement, and that inservice inspection is not required during the steam generator replacement outage. These are administrative changes in that they only provide clarification of requirements written without steam generator replacement considerations, and therefore, reduce the possibility for confusion in the application of the subject technical specification provisions. Therefore, these proposed changes do not create the possibility of a new or different kind of accident from any previously evaluated.

3. **The proposed change does not involve a significant reduction in a margin of safety.**

Eliminating provisions in the Technical Specifications for application of the voltage-based repair criteria, the F* alternate repair criteria, and laser-welded sleeves to the Δ94 steam generators is an administrative adjustment, since the voltage-based repair criteria, the F* alternate repair criteria, and laser-welded sleeves are not applicable to the Δ94 steam generators.

The Δ94 steam generator tubing is designed and evaluated consistent with the margins of safety specified in ASME Code Section III. The program for periodic inservice inspection of steam generators monitors the integrity of the steam generator tubing to ensure that there is sufficient time to take proper and timely corrective action if tube degradation is present.

The ASME Section XI basis for the 40% through-wall plugging limit is applicable to the Δ94 steam generators just as it was applicable to the Model E steam generators prior to the implementation of voltage-based repair criteria, F* alternate repair criteria, and laser-welded sleeves. In addition, analysis per Regulatory Guide 1.121 (WCAP-15095 / WCAP-15096) has confirmed the applicability of the 40% plugging limit for the Δ94 steam generators.

The changes also clarify that inservice inspection is required following steam generator replacement, but that inservice inspection is not required during the steam generator replacement outage. These are administrative changes in that they only provide clarification of requirements written without steam generator replacement considerations, and therefore, reduce the possibility for confusion in the application of the subject technical specification provisions. Therefore, these proposed changes do not involve a significant reduction in the margin of safety.

Based on the above evaluation, South Texas Project concludes that the proposed change to the Technical Specifications involves no significant hazards consideration.