



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

October 11, 2011

Mr. G. T. Powell, Vice President
Technical Support and Oversight
STP Nuclear Operating Company
P.O. Box 289
Wadsworth, TX 77483

SUBJECT: REQUESTS FOR ADDITIONAL INFORMATION FOR THE REVIEW OF THE
SOUTH TEXAS PROJECT, UNITS 1 AND 2, LICENSE RENEWAL
APPLICATION – AGING MANAGEMENT REVIEW, SET 5
(TAC NOS. ME4936 AND ME4937)

Dear Mr. Powell:

By letter dated October 25, 2010, STP Nuclear Operating Company submitted an application pursuant to Title 10 of the *Code of Federal Regulations*, Part 54, to renew operating licenses NPF-76 and NPF-80 for South Texas Project, Units 1 and 2, for review by the U.S. Nuclear Regulatory Commission (NRC or the staff). The staff is reviewing the information contained in the license renewal application and has identified, in the enclosure, areas where additional information is needed to complete the review.

These requests for additional information were discussed with Arden Aldridge, and a mutually agreeable date for the response is within 30 days from the date of this letter. If you have any questions, please contact me at 301-415-3873 or by e-mail at john.daily@nrc.gov.

Sincerely,

Arthur Cunanan for

John W. Daily, Senior Project Manager
Projects Branch 1
Division of License Renewal
Office of Nuclear Reactor Regulation

Docket Nos. 50-498 and 50-499

Enclosure:
As stated

cc w/encl: Listserv

SOUTH TEXAS PROJECT, UNITS 1 AND 2,
REQUEST FOR ADDITIONAL INFORMATION
AGING MANAGEMENT REVIEW, SET 5
(TAC NOS. ME4936 AND ME4937)

Metal Fatigue (035)

RAI B3.1-1a (Follow-up)

Background:

In its response to Request for Additional Information (RAI) B3.1-1 dated September 15, 2011, STP Nuclear Operating Company (STPNOC or the applicant) stated that corrective actions will include repair of the component, replacement of the component, or a more rigorous analysis of the component. The applicant also stated that License Renewal Application (LRA) Appendix B3.1 and Table A4-1 Commitment No. 30 will be revised to clarify the corrective actions to be invoked.

Issue:

The applicant did not revise the Updated Final Safety Analysis Report (UFSAR) Supplement in LRA Section A2.1 reflecting the aforementioned corrective actions. The applicant also did not provide the revised LRA Appendix B3.1 and Table A4-1 Commitment No. 30 indicating the changes. The U.S. Nuclear Regulatory Commission (NRC or the staff) cannot determine the acceptability of the changes without reviewing the proposed revision.

Request:

- Revise LRA Section A2.1 to describe the corrective actions to be invoked if a component approaches a cycle counting action limit and a fatigue usage action limit. Or justify that the UFSAR supplement in LRA Section A2.1 provides sufficient information that the corrective actions include repair of the component, replacement of the component, or a more rigorous analysis for the component.
- Provide the proposed revision of LRA Appendix B3.1 and Table A4-1 Commitment No. 30 consistent with the changes discussed in the response to RAI B3.1-1.

RAI B3.1-3a (Follow-up)

Background:

In its response to RAI B3.1-3 dated September 15, 2011, the applicant stated that the UFSAR will be updated in accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 54.29 to identify those transients used in the leak before breaking (LBB) analyses. The applicant also stated that LRA Appendix B3.1 will be revised to reflect the enhancements to Element 1, Scope of Program and Element 7, Corrective Actions.

ENCLOSURE

Issue:

The applicant did not provide the revised UFSAR Supplement in LRA Section A2.1. It is not clear to the staff why the transients used in the LBB analyses should be the only information to be included in the UFSAR Supplement. The staff noted that the corrective actions for LBB analyses, which are different from those of fatigue analyses, and other relevant information regarding the use of cycle-counting activities for LBB analyses, should also be included in the UFSAR Supplement. The applicant also did not provide the revised LRA Appendix B3.1 and the staff cannot determine the acceptability of the changes without reviewing the proposed revision. Furthermore, the applicant did not revise Table A4-1 Commitment No. 30 consistent with the changes to the enhancements in LRA Appendix B3.1. It is also not clear to the staff whether the plant's cycle-counting procedure will be updated regarding the use of cycle-counting activities for LBB analyses.

Request:

- Provide the UFSAR Supplement regarding the use of cycle-counting activities to ensure the fatigue crack growth analyses for LBB remain valid and associated corrective actions to be invoked if a component approaches the cycle-counting action limit.
- Confirm that the changes to the plant's cycle-counting procedure are consistent with the response to RAI B3.1-3 regarding the use of cycle-counting activities to ensure the fatigue crack growth analyses for LBB remain valid and associated corrective actions to be invoked if a component approaches the cycle-counting action limit. If not, justify why the changes are not needed.
- Provide the proposed revision of LRA Appendix B3.1. Revise Table A4-1 Commitment No. 30 consistent with the changes to the enhancements discussed in the response to RAI B3.1-3, or justify that the Table A4-1 Commitment No. 30 provides sufficient information regarding the use of cycle-counting activities to ensure the fatigue crack growth analyses for LBB remain valid.

RAI B3.1-5a (Follow-up)

Background:

In its response to RAI B3.1-5 dated September 15, 2011, the applicant added a new commitment (Commitment No. 34) in LRA Table A4-1 indicating that it will perform a review of design basis ASME Class 1 component fatigue evaluations to determine whether additional components may be more limiting than the components identified in NUREG/CR-6260.

Issue:

The staff noted that the applicant's new commitment will be implemented as part of its Metal Fatigue of Reactor Coolant Pressure Boundary Program. However, the applicant did not include this as an enhancement to its program in LRA Appendix B3.1. The applicant also did not revise the UFSAR Supplement in LRA Section A2.1.

Request:

Revise LRA Appendix B3.1 and the UFSAR Supplement in LRA Section A2.1 consistent with the additional commitment discussed in the response to RAI B3.1-5.

Electrical Scoping and Screening

RAI 2.5-2a (Follow-up), Components within the scope of license renewal – SBO

Background:

In request for additional information (RAI) 2.5-2 dated March 17, 2011, the staff requested the applicant to provide justification for why the control circuits and structures associated with the switchyard circuit breakers used to supply the Station Blackout (SBO) recovery paths are not within the scope of license renewal. In letter dated May 5, 2011, (ADAMS Accession No. ML11130A026) the applicant stated that the control circuits are not required for SBO recovery because the switchyard circuit breakers used to supply the SBO recovery paths remain in closed position when offsite power is interrupted and that they contain stored energy in order to be operated without the use of control circuits.

Issue:

During telephone discussions with the staff, on July 19, 2011, the licensee stated that the South Texas Project has a unique switchyard configuration in its design with regards to SBO. The licensee stated that the breakers can be manually closed locally without the need of any control circuits. Section 2.5.2.1.1, "Components Within the Scope of SBO (10 CFR 50.63)" of NUREG-1800, "Final Report – Standard Review Plan for Review of License Renewal Applications for Nuclear Power Plants (December 2010)," identifies the control circuits associated with the switchyard circuit breakers as being part of the equipment that should be included within the SBO restoration equipment scope irrespective of manual or remote mode of operation. Based on this information, the staff finds that the control circuits associated with SBO restoration equipment (i.e., switchyard circuit breakers) needs to be within the scope of license renewal.

Request:

Based on the above, supplement the application to include the control circuits associated with the switchyard circuit breakers used to supply SBO recovery paths as being within the scope of license renewal.

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Sincerely,

/RA/ by Arthur D. Cunanan for

John W. Daily, Senior Project Manager
Projects Branch 1
Division of License Renewal
Office of Nuclear Reactor Regulation

Docket Nos. 50-498 and 50-499

Enclosure:
As stated

cc w/encl: Listserv

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ADAMS Accession No.: ML11273A017

*concurrence via e-mail

OFFICE	LA: DLR/RPB1*	PM: DLR/RPB1	BC: DLR/RPB1	PM: DLR/RPB1
NAME	SFigueroa	JDaily (ACunanan for)	DMorey	JDaily (ACunanan for)
DATE	09/30/2011	09/30/2011	10/02/2011	10/11/2011

OFFICIAL RECORD COPY

Letter to G. T. Powell from John W. Daily dated October 11, 2011

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