



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

August 13, 2013

Mr. Dennis L. Koehl  
President and CEO/CNO  
STP Nuclear Operating Company  
South Texas Project  
P.O. Box 289  
Wadsworth, TX 77483

**SUBJECT: SOUTH TEXAS PROJECT, UNITS 1 AND 2 – ACCEPTANCE OF REQUESTS FOR EXEMPTIONS AND LICENSE AMENDMENT REQUEST FOR APPROVAL OF A RISK-INFORMED APPROACH TO RESOLVE GENERIC SAFETY ISSUE GSI-191 (TAC NOS. MF0613, MF0614, MF2400, MF2401, MF2402, MF2403, MF2404, MF2405, MF2406, MF2407, MF2408, AND MF2409)**

Dear Mr. Koehl:

By letter dated January 31, 2013 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML13043A013), STP Nuclear Operating Company (STPNOC, the licensee) submitted an exemption request for a risk-informed approach to resolve Generic Safety Issue (GSI)-191 for South Texas Project (STP), Units 1 and 2. The request was assigned Technical Assignment Control (TAC) Nos. MF0613 and MF0614. The U.S. Nuclear Regulatory Commission (NRC) staff requested supplemental information by letter dated April 1, 2013 (ADAMS Accession No. ML13066A519). The licensee provided the requested information by letter dated June 19, 2013 (ADAMS Accession No. ML131750250). The licensee's letter dated June 19, 2013, included a license amendment request, in addition to four exemption requests. The licensee stated that the revised submittal supersedes the previous submittal dated January 31, 2013, in its entirety. Hence, the NRC staff considers the original request as withdrawn and has closed TAC Nos. MF0613 and MF0614. The request dated June 19, 2013, has been assigned new set of TAC numbers for the exemption requests and the license amendment request.

The purpose of this letter is to provide the results of the NRC staff's acceptance review of the exemption requests and the amendment request. The acceptance review was performed to determine if there is sufficient technical information in scope and depth to allow the NRC staff to complete its detailed technical review. The acceptance review is also intended to identify whether the application has any readily apparent information insufficiencies that may impact the NRC staff's ability to complete the detailed technical review.

Consistent with Section 50.12 of Title 10 of the *Code of Federal Regulations* (10 CFR), the licensee may request and the NRC staff may grant exemptions from the requirements of 10 CFR 50, which are authorized by law, will not present undue risk to the public health and safety, is consistent with the common defense and security, and when special circumstances are present.

Also, consistent with 10 CFR 50.90, an amendment to the license (including the technical specifications) must fully describe the changes requested, and following as far as applicable, the form prescribed for original applications. Section 50.34 of 10 CFR addresses the content of technical information required. This section stipulates that the submittal address the design and operating characteristics, unusual or novel design features, and principal safety considerations.

The NRC staff has reviewed the information provided in the licensee's letter dated June 19, 2013, and concludes that for the following areas, the application does not provide technical information in sufficient detail to enable the NRC staff to complete its detailed technical review and make an independent assessment regarding the acceptability of the proposed exemptions and the amendment request in terms of regulatory requirements.

- Key assumptions, input parameters, and modeling details for the reactor coolant system thermal hydraulic analysis in response to in-core debris plugging.
- Technical basis for the strainer head loss evaluation.
- The licensee cited "engineering judgment" in several technical areas with little or no justification or sensitivity studies in support of the engineering judgments.
- The risk-informed approach to chemical effects described by the licensee involves the use of a "bump-up" factor (multiplier) applied to conventional head loss (non-chemical debris) across the sump strainer, but does not provide sufficient technical basis for the multiplier used and its distribution. Additional testing may be needed to justify the methodology described in the application.
- Details of the containment Net Positive Suction Head (NPSH) analysis, including assumptions and input parameters, and containment accident pressure credited for providing the NPSH for the emergency core cooling and containment heat removal systems.

The risk-informed approach for resolution of GSI-191 for STP, Units 1 and 2, is proposed to support closure of Generic Letter 2004-02, "Potential Impact of Debris Blockage on Emergency Recirculation during Design Basis Accidents at Pressurized-Water Reactors," dated September 13, 2004 (ADAMS Accession No. ML042360586). The use of risk-informed approach to resolution of GSI-191, is described in SECY-12-0093, "Closure Options for Generic Safety Issue – 191, Assessment of Debris Accumulation on Pressurized-Water Reactor Sump Performance," dated July 9, 2012 (ADAMS Accession No. ML121320270). STP is the pilot plant and a number of licensees intend to use the methodology developed by STP, if accepted by the NRC staff. The risk-informed approach developed by STPNOC is first-of-a-kind review and resolution of GSI-191 issues is in the interest of public health, safety, and security. The NRC staff is still developing the guidance on acceptable methods and level of detail needed for review of such applications. Therefore, the NRC staff has decided to invoke Section 1.3.4, "Rare Circumstances," of LIC-109, Revision 1, "Acceptance Review Procedures," dated July 16, 2009 (ADAMS Accession No. ML091810088), and accept the application for review. The NRC staff will request any further information needed to support the NRC staff's detailed technical review by separate correspondence. In addition, the NRC staff may conduct on-site audits to review the information not submitted on docket previously and conduct public meetings to resolve open

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issues for the benefit of the other licensees intending to use the risk-informed approach for resolution to GSI-191.

If the technical information identified above is not provided in a reasonable amount of time, the NRC staff may decide to terminate the review. In such as case, the licensee will be expected to resolve GSI-191 concerns by use of a deterministic approach.

If you have any questions, please contact me at (301) 415-3016 or via e-mail at [balwant.singal@nrc.gov](mailto:balwant.singal@nrc.gov).

Sincerely,



Balwant K. Singal, Senior Project Manager  
Plant Licensing Branch IV  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-498 and 50-499

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If you have any questions, please contact me at (301) 415-3016 or via e-mail at [balwant.singal@nrc.gov](mailto:balwant.singal@nrc.gov).

Sincerely,

*/ra/*

Balwant K. Singal, Senior Project Manager  
Plant Licensing Branch IV  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-498 and 50-499

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**ADAMS Accession No. ML13214A031**

**\* Concurrence via e-mail**

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