

July 26, 2012

Mr. Mark McBurnett, Chief Executive Officer
and Chief Nuclear Officer
Nuclear Innovation North America, LLC
4000 Avenue F
Bay City, TX 77414

SUBJECT: SOUTH TEXAS PROJECT UNITS 3 AND 4 COMBINED LICENSE APPLICATION
RADWASTE AND TURBINE BUILDING REVIEW

Dear Mr. McBurnett:

By letter dated September 20, 2007, South Texas Project Nuclear Operating Company (STPNOC) submitted a combined license application (COLA) for South Texas Project (STP) Units 3 and 4. This application was subsequently docketed and the U.S. Nuclear Regulatory Commission (NRC) staff began its review of the application. As of January 24, 2011, Nuclear Innovation North America LLC (NINA) became the applicant for STP Units 3 and 4. As such, NINA assumed responsibility for design, construction and licensing of STP Units 3 and 4.

In the September 20, 2007, version of the COLA, STPNOC committed to Regulatory Guide (RG) 1.143, Revision 2. That commitment remained in place through subsequent revisions of the COLA. By letter dated October 5, 2010, STPNOC submitted Revision 4 to the STP COLA. This revision contained additional information requested by the staff including additional information regarding the design of the radwaste building (RWB) and turbine building (TB). In Revision 4 NINA stated that the RWB is designated as safety classification RW-IIb in accordance with RG 1.143, Revision 2. This designation remains in place through the current revision (Revision 7) to the COLA.

In the course of its review of Revision 5 to the COLA, the staff issued request for additional information (RAI) 03.08.04-37 on August 17, 2011. In this RAI the staff asked that NINA provide justification that RW-IIb is the appropriate classification for the RWB. On reviewing NINA's September 8, 2011, response to RAI 03.08.04-37, the staff determined that the response did not address the issue completely and that the staff would require additional information. In order to gather this additional information, the staff conducted a two part audit on November 9, 2011, and February 8, 2012. In its audit report dated March 21, 2012, the staff determined that NINA did not follow the guidance of RG 1.143, Rev. 2, in making its determination that RW-IIb is the appropriate classification for the RWB and, therefore, the staff concluded that NINA had not sufficiently addressed RAI 03.08.04-37. The staff also concluded that additional information regarding the design and classification of the TB as it applies to the off-gas vault and off-gas system would be required and stated that it would issue a separate RAI on this issue.

By letter dated April 25, 2012, NINA responded to the staff's audit report. In this response NINA stated that it did properly apply the guidance of RG 1.143, Rev. 2, in making its classification determination for the RWB noting that the staff had already issued its advanced Safety Evaluation Report (SER) with no open items for Chapter 11. NINA further asserted that the

turbine building is within the scope of the NRC-approved design and, therefore, is not subject to further staff review.

The staff has reviewed your April 25, 2012, response and has determined 1) that NINA did not adhere to the guidance in RG 1.143, Rev. 2, in making its determination of the proper safety classification for the RWB in that NINA took credit for shielding when calculating the unmitigated dose; 2) that because NINA does not adhere to the guidance of RG 1.143, Rev. 2, the information provided in the application for departure STD DEP T1 2.15-1 is not sufficient to justify its approval and the information provided for departures STD DEP 11.2-1 and STD DEP 11.4-1 is not sufficient to allow the staff to find it reasonable that these departures do not require our approval; and 3) that these departures should now be considered as open items in Chapter 11 of the SER until the staff can make a determination as to their disposition.

The staff has also determined that NINA's commitment to RG 1.143, Rev. 2, without exception, as described in Tables 1.8-20 and 1.9S-1 of the Final Safety Analysis Report (FSAR) submitted as part of the COLA is not applied consistently in that NINA has not provided classifications for the TB off-gas system and off-gas vault in accordance with the guidance of RG 1.143, Rev. 2. The staff, therefore, has determined that until NINA has either classified the TB off-gas system and off-gas vault in accordance with RG 1.143, Rev. 2, or modified Tables 1.8-20 and 1.9S-1 to clarify the applicability of RG 1.143, Rev. 2, the turbine building design is an open item requiring further staff review. Please be advised that the staff will review the Tier 2 FSAR departures associated with the turbine building in light of whichever of the two actions described above you decide to take. Until the staff has found it reasonable that these departures can be made without our approval, they should also be considered as open items.

The staff's review of Chapters 3 and 11 cannot be completed until these issues are resolved. We would be pleased to meet publicly with you to discuss options for addressing the staff's concerns. If you would like to discuss any of the issues in this letter, please contact the lead project manager, George Wunder at (301) 415-1494.

Sincerely,

/RA/

David B. Matthews, Director
Division of New Reactor Licensing
Office of New Reactors

Docket Nos.: 52-012
52-013

cc: See next page

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/RA/

David B. Matthews, Director
Division of New Reactor Licensing
Office of New Reactors

Docket Nos.: 52-012
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(Revised 05/21/2012)

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