July 18, 2013

Mr. Scott Head, Manager
Regulatory Affairs
STP Units 3 & 4
Nuclear Innovation North America, LLC
122 West Way, Suite 405
Lake Jackson, TX 77566

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 435 RELATED TO SRP SECTION 01.05 FOR THE NUCLEAR INNOVATION NORTH AMERICA, LLC COMBINED LICENSE APPLICATION

Dear Mr. Head:

By letter dated September 20, 2007, South Texas Project (STP) submitted for approval a combined license application pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) Part 52. The U.S. Nuclear Regulatory Commission (NRC) staff is performing a detailed review of this application to enable the staff to reach a conclusion on the safety of the proposed application.

The NRC staff has identified that additional information is needed to continue portions of the review. The staff's request for additional information (RAI) is contained in the enclosure to this letter.

To support the review schedule, you are requested to respond within **30** days of the date of this letter. If changes are needed to the safety analysis report, the staff requests that the RAI response include the proposed wording changes.

If you have any questions or comments concerning this matter, I can be reached at 301-415-5787 or by e-mail at rocky.foster@nrc.gov or you may contact George Wunder at 301-415-1494 or george.wunder@nrc.gov.

Sincerely,

/RA G Wunder for/

Rocky D. Foster, Project Manager
Licensing Branch 3
Division of New Reactor Licensing
Office of New Reactors

Docket Nos.: 52-012
52-013

eRAI Tracking No.: 7182

Enclosure:
Request for Additional Information

cc: William Mookhoek
Richard Scheide
Loree Elton

If you have any questions or comments concerning this matter, I can be reached at 301-415-5787 or by e-mail at rocky.foster@nrc.gov or you may contact George Wunder at 301-415-1494 or george.wunder@nrc.gov.

Sincerely,

/RA G Wunder for/

Rocky D. Foster, Project Manager
Licensing Branch 3
Division of New Reactor Licensing
Office of New Reactors

Docket Nos.: 52-012
52-013

eRAI Tracking No.: 7182

Enclosure:
Request for Additional Information

cc: William Mookhoek
Richard Scheide
Loree Elton

DISTRIBUTION:
PUBLIC
LB3 R/F
RFoster, NRO
SGreen, NRO
RidsNroDsraScvb
RidsNroDnrlLb3
GWunder, NRO
SPark, NRO
SChakrabarti, NRO
JXu, NRO

ADAMS ACCESSION NO.: ML13198A1741 NRO-002

OFFICE	TR:DE/SEB2	BC:DE/SEB2	LA:DNRL/LB3	LPM:DNRL/LB3	PM:DNRL/LB3
NAME	SPark	SChakrabarti for JXu	SGreen	GWunder	RFoster
DATE	07/03/2013	07/05/2013	07/17/2013	07/18/2013	07/17/2013

***Approval captured electronically in the electronic RAI system.**

OFFICIAL RECORD COPY

Request for Additional Information 435

Issue Date: 07/16/2013
Application Title: South Texas Project Units 3 and 4 - Dockets 52-012 and 52-013
Operating Company: South Texas Project Nuclear Operating Co
Docket No. 52-012 and 52-013
Review Section: 01.05 - Other Regulatory Considerations
Application Section: 01.05

QUESTION

01.05-21

In regards to the response to RAI 01.05-5, the staff reviewed the applicant's response and determined that the response is insufficient to completely address the staff's concerns. The NRC staff needs sufficient information in order to reach a safety conclusion within the COLA review. The applicant should address the specific provisions in Interim Staff Guidance (ISG) JLD-ISG-2012-01, "Compliance with Order EA-12-049, Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events," (ML12229A174), dated August 29, 2012 that endorses the Nuclear Energy Institute (NEI) 12-06, "Diverse and Flexible Coping Strategies (FLEX) Implementation Guide". The ISG provides an acceptable method for satisfying Order EA-12-049. As stated in the ISG, other methods may be used to satisfy Order EA-12-049, but these methods will be reviewed by the NRC staff on a case-by-case basis to determine their acceptability. If the applicant proposes to use methods that differ from those in the ISG and endorsed guidance, the applicant should explain why these alternative methods are acceptable.

In response to RAI 422, Question 01.05-5, the applicant submitted "STP 3&4 ABWR FLEX Integrated Plan" to address issues related to Fukushima Near-Term Task Force (NTTF) Recommendation 4.2, "Mitigation". On page 3 of 60 of the FLEX Plan, the first paragraph states: "At STP 3&4, the 20 MWe CTGs are housed in structures which protect them from design floods and site severe weather events.… Although the CTGs are not specifically protected from wind generated missiles, at STP 3&4, the CTGs are located in the Turbine Buildings separated by approximately 900 feet and failure of both due to wind generated missiles is considered to be extremely unlikely. …"

In the cited paragraph above, the applicant indicates that the Turbine Buildings (TBs) will house Combustion Turbine Generators (CTGs) and protect them from design floods and site severe weather events. It also states that the CTGs are located in the TBs separated by approximately 900 feet and failure of both due to wind generated missiles is considered to be extremely unlikely.

In Chapter 3 of STP 3&4 FSAR (Revision 9), Table 3H.9-1 indicates that only the lateral load resisting system of the TBs will be evaluated against stability and II/I interactions under the effects of extreme environmental conditions including earthquake, tornado and tornado missiles, hurricane and hurricane missiles, and flood. The Table also indicates that the TBs (except for the lateral load resisting system) are not designed against tornado and tornado missiles, hurricane and hurricane missiles, or flood (page 3H-242). Although the likelihood

of the simultaneous failure of both CTGs located in the TBs due to tornado- or hurricane-generated missiles is low, the CTGs in the TBs are potentially vulnerable to the wind effects of tornado and hurricane.

The staff requests that the applicant clarify how the statements cited above from the FLEX plan can be reconciled with the information presented in Table 3H.9-1 of the FSAR. Specifically, the applicant is requested to clearly describe in the FLEX plan and updated FSAR how the CTGs located in the TBs are protected against the effects of tornado, hurricane, and flood.