

April 3, 2012

Mr. Scott Head, Manager  
Regulatory Affairs  
STP Units 3 & 4  
Nuclear Innovation North America, LLC  
P. O. Box 289  
Wadsworth, TX 77483

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 416 RELATED TO  
SRP SECTION 03.09.02 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 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.

S. Head

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If you have any questions or comments concerning this matter, I can be reached at 301-415-6590 or by e-mail at [David.Misenhimer@nrc.gov](mailto:David.Misenhimer@nrc.gov) or you may contact George Wunder at 301-415-1494 or [George.Wunder@nrc.gov](mailto:George.Wunder@nrc.gov).

Sincerely,

**/RA/**

David Misenhimer, Project Manager  
LB3 Branch  
Division of New Reactor Licensing  
Office of New Reactors

Docket Nos.: 52-012  
52-013

eRAI Tracking No. 6381

Enclosure:  
Request for Additional Information

cc: William Mookhoek  
James Agles  
Loree Elton

S. Head

- 2 -

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Sincerely,

**/RA/**

David Misenhimer, Project Manager  
LB3 Branch  
Division of New Reactor Licensing  
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NRO-002

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| <b>NAME</b>   | YWong     | JColaccino | TTai        | DMisenhimer   |
| <b>DATE</b>   | 03-21-12  | 03-20-12   | 03-21-12    | 03-30-12      |

\* **Approval captured electronically in the email system.**

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**Request for Additional Information No. 6381**

**South Texas Project Units 3 and 4  
South Texas Project Nuclear Operating Co**

**Docket No. 52-012 and 52-013**

**SRP Section: 03.09.02 - Dynamic Testing and Analysis of Systems Structures and  
Components**

**Application Section: 3.9.2**

**QUESTIONS for Engineering Mechanics Branch (EMB)**

**03.09.02-51**

This is a follow-up to Question 3.9.1-2.

In WCAP-17371-P, Revision 2, the applicant assumed all 10 pumps running in phase to calculate the reactor internal pump forcing function from the Reference Japanese ABWR (RJ-ABWR) plant startup pressure measurement. In the January 18, 2012 audit for the ACSTIC2 computer code as part of the SRP Section 3.9.1 review, the staff discovered that the pump phasing information for the RJ-ABWR is not known. Using the RJ-ABWR pressure measurement and assuming all pumps running in phase to solve for the pump forcing function will yield the smallest pump forcing function. The applicant is requested to demonstrate that the pump forcing function used in the reactor internal component acoustic analysis is conservative.