

March 12, 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. 424 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](mailto:rocky.foster@nrc.gov) or you may contact George Wunder at 301 415-1494 or [george.wunder@nrc.gov](mailto:george.wunder@nrc.gov).

Sincerely,

***/RA George 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.: 6588

Enclosure:  
Request for Additional Information

cc: William Mookhoek  
Richard Scheide  
Loree Elton

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\*Approval captured electronically in the electronic RAI system.

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## **Request for Additional Information 424**

Issue Date: 3/12/2013

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: 1.05

### **QUESTIONS**

#### **01.05-8**

The staff has reviewed the applicant's response to RAI 01.05-2 regarding SFP instruments and has questions regarding Section 1.6 power supplies. The applicant stated that the permanently installed instrumentation channels will be powered by separate Non-Class 1E Vital power supplies powered by the CTG. The independent alternate sources used for instrument channel power will have sufficient capacity to maintain the level indication function until offsite resource capability is reasonably assured. These power supplies will be stored in a Seismic Category I building and will be easily accessible for timely installation. This information is consistent with the NRC Order EA-12-051 and Interim Staff Guidance (ISG) JLD-ISG-2012-03, "Compliance with Order EA-12-051, Reliable Spent Fuel Instrumentation," (ML12221A339) dated August 29, 2012, which endorses the Nuclear Energy Institute (NEI) 12-02, "Industry guidance for Compliance with NRC Order EA-12-051, "To Modify Licenses with Regard to Reliable Spent Fuel Pool Instrumentation". The ISG provides an acceptable method for satisfying Order EA-12-051.

In regards to the applicant's response to RAI 01.05-2, the CTG is only designed for the 100 yr wind speed of 134 mph based on ASCE/SEI 7-05. Given the two hundred year wind speed of 142 mph, the CTG cannot be assumed to be operable, and the independent alternate sources will be needed to provide SFP instrumentation.

- a. Please document in the FSAR if these independent alternate power supplies are the same portable DC power supplies that will be procured under FLEX as discussed in RAI response 01.05-4.
- b. The Order EA-12-051 states that, "Based upon the considerations set forth above, the Commission has determined that all power reactor licensees and CP holders must have a reliable means of remotely monitoring wide-range spent fuel pool levels to support effective prioritization of event mitigation and recovery actions in the event of a beyond-design-basis external event." Please include the SFP instruments and the independent alternate DC power sources in the Reliability Assurance Program or justify why it is not necessary even though the Order EA-12-051 states that the SFP level indication should be reliable.
- c. Please document in the FSAR whether these alternate power supplies will be able to provide sufficient power for 24 hours following a high wind exceeding 134 mph. On-site and off-site debris may prevent offsite resources from reaching the site. If these alternate power supplies cannot provide sufficient power for 24 hours following a high wind event, please justify why this instrumentation can be considered "reliable" as stated in the Order EA-12-051.

Enclosure

#### 01.05-9

Based on the public telephone call with STP on January 16, 2013, the staff was informed that STP plans to place one diesel driven fire water pump in each unit with respect to NTTF Recommendation 4.2 External Events, in the context of high winds at beyond design basis wind speeds. Each diesel driven fire water pump will be housed in the Reactor Building (a Cat 1 structure). The staff is requesting STP to document in the FSAR:

(1) that one diesel driven fire water pump will be housed in each unit, in the Reactor Building; and

(2) clarify whether both diesel driven fire water pumps will be included in the Reliability Assurance Program (RAP). One diesel driven fire water pump is already included in the RAP as described in Chapter 19. If the applicant does not propose to include both diesel driven fire water pumps in the RAP, please justify why this is appropriate.

#### 01.05-10

Based on the public telephone call with STP on January 16, 2013, the staff was informed that STP agreed to remove the following statements regarding NTTF 2.1 on External Flooding from the response to RAI 01.05-1 and the associated FSAR content, since there was no engineering analysis to support the statements.

"Additionally, an MCR breach is highly improbable because:

- Overtopping of the embankment is not possible due to very large freeboard:
- An MCR embankment failure at any point except a very small portion of the 12.4 mile embankment perimeter has no impact on site structures "

The staff requests the applicant to confirm that these statements are removed from STP's response to NTTF 2.1 on External Flooding that is contained in the response to RAI 01.05-1 and the FSAR.

Enclosure