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U.S. Nuclear Regulatory Commission
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Southern Nuclear Operating Company
Vogtle Electric Generating Plant
First of a Kind Tests for AP1000 Plants (Response Requested)

Ladies and Gentlemen:

The Initial Test Program (ITP) described in Chapter 14 of the AP1000 Design Control Document (DCD) includes several pre-operational and start-up tests that have been identified as First Plant Only (FOAK) or First Three Plants Only (F3OAK). These special tests, described in Section 14.2.5, have also been specifically called out in proposed ITP license conditions for the COL applicants referencing the AP1000 Design Certification.

The first AP1000 plants to progress to the point of performing the ITP, including the FOAK/F3OAK tests, will be the units in China (Sanmen Units 1 & 2 and Haiyang Units 1 & 2). Because of the standardization of the AP1000 design, once these special tests have demonstrated design function and construction consistency, they are not required for follow-on plants.

Southern Nuclear Operating Company (SNC) plans to utilize the results from the Chinese FOAK/F3OAK tests through the following process: A Technical and or Topical Report (TR) generated by Westinghouse documenting the results of the testing will be submitted to the NRC for approval. Upon determination of acceptability, the NRC would issue a Safety Evaluation Report (SER) for the Westinghouse TR. Subsequently, SNC would submit a License Amendment Request (LAR) to take credit for the China FOAK/F3OAK tests. It is anticipated that multiple TRs, SERs and LARs would be issued to address the entire spectrum of FOAK/F3OAK testing.

Beginning in the near term and continuing throughout the above process, SNC will work with Westinghouse and the NRC staff to gain confidence that the test specifications and procedures meet NRC requirements. With respect to the performance of the tests in China, including the various supporting analyses and documentation used to develop TRs, Westinghouse will take the lead role in interfacing with the NRC. SNC will work closely with Westinghouse and the NRC to maintain careful coordination on these complex issues.

SNC requests feedback from the NRC to provide the regulatory criteria, documentation and NRC interactions needed to allow crediting the results of the FOAK/F3OAK tests to be

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performed in China for U.S. Plants. This information would then be used by SNC and Westinghouse in future interactions to support successful NRC safety evaluations of Westinghouse TRs and SNC LARs to satisfy Vogtle 3 & 4 license conditions. The goal of our interaction is to confirm the specific criteria necessary for SNC to utilize China testing to satisfy the license conditions.

Based on previous discussions, we believe the primary criteria are as follows:

- The Initial Test Program for the China plants should provide controls consistent with the requirements of Reg. Guide 1.68 & 10 CFR 50 App. B
- The collection and analysis of reactor vessel internals vibration data from China should support the non-prototype status of Vogtle units 3 and 4 as defined in Reg. Guide 1.20, Rev. 2
- There should be measures taken to assure that there is sufficient access to allow appropriate NRC observation of testing in China
- A protocol should be established among all parties for the sharing of test data and results


Therefore, SNC requests a formal response to this letter and a subsequent meeting to discuss the AP1000 FOAK/F3OAK program, the NRC criteria, and how they will be addressed.

If there are any questions regarding this letter, please contact Mr. Wes Sparkman at (205) 992-5061.

Mr. B. L. Ivey states he is a Vice President of Southern Nuclear Operating Company, is authorized to execute this oath on behalf of Southern Nuclear Operating Company and to the best of his knowledge and belief, the facts set forth in this letter are true.

Respectfully submitted,

SOUTHERN NUCLEAR OPERATING COMPANY


B. L. Ivey

Sworn to and subscribed before me this 12th day of December, 2011

Notary Public: Nancy Louise Henderson

My commission expires: March 23, 2014

BLI/kjp

Enclosures: None

cc: Southern Nuclear Operating Company

Mr. S. E. Kuczynski, President and CEO (w/o enclosure)
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Mr. T. E. Tynan, Vice President - Vogtle (w/o enclosure)
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Mr. M. J. Ajluni, Nuclear Licensing Director
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Mr. T. C. Moorer, Manager, Environmental Affairs, Chemistry and Rad. Services
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Mr. W. A. Sparkman, COL Project Engineer
Ms. A. G. Aughtman, Lead AP1000 Licensing Project Engineer
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