

July 15, 2016

Mr. Ronald A. Jones, Vice President
New Nuclear Operations
South Carolina Electric & Gas Company
P.O. Box 88
Jenkinsville, SC 29065

SUBJECT: NOTICE OF INSUFFICIENT INFORMATION IN ITAAC CLOSURE
NOTIFICATION FOR ITAAC 2.5.01.03c (INDEX No. 513)

Dear Mr. Jones:

By letter dated May 3, 2016, the South Carolina Electric and Gas Company (SCE&G) submitted the subject inspections, tests, analyses, and acceptance criteria (ITAAC) closure notification (ICN) in accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) Part 52, Section 52.99(c)(1). The ICN is available in the Agencywide Documents Access and Management System, Accession No. ML16124A953 for ITAAC 2.5.01.03c (Index No. 513). The ITAAC is for verifying that any Diverse Actuation System (DAS) algorithms, logic, program architecture, executable operating systems, and executable software/logic are different from those used in the Protection and Safety Monitoring System (PMS). The NRC staff has completed its review of that ICN and has determined that the ICN does not have sufficient information to verify its ITAAC as satisfactorily completed by the licensee.

The NRC staff based its conclusion on a review of the ICN against the requirements of 10 CFR 52.99, using the guidance contained in Regulatory Guide (RG) 1.215, Revision 2, "Guidance for ITAAC Closure under 10 CFR Part 52." As described in RG 1.215, ICNs shall contain sufficient information to demonstrate that the prescribed inspections, tests and analyses have been performed and that the prescribed acceptance criteria are met. To be consistent with this guidance the ICN should contain, at a minimum, a summary description of the bases for the licensee's conclusion that it has performed the inspections, tests, or analyses and that it has met the prescribed acceptance criteria. The information provided should be at a level of detail that allows a reasonable person to understand the bases for the licensee's representation that the ITAAC has been successfully completed. The NRC staff finds that the ICN does not contain a level of detail that meets the "sufficient information" threshold of RG 1.215 and the regulation at 10 CFR 52.99(c)(1) for demonstrating that the acceptance criteria are met.

The NRC staff's review of the ICN found that the ICN's requisite "level of detail" was insufficient for demonstrating that the prescribed acceptance criteria of the ITAAC has been met. As an example, the NRC staff's review of the ICN table shows that:

- LOGIC / The logic for both the DAS and the Component Interface Module (CIM) utilize "Unique Gate Structure." Further details explaining why the CIM and DAS unique gate structure are different are not provided;

- PROGRAM ARCHITECTURE / Design details that explain why the DAS and CIM FPGA technology are different are not provided;
- EXECUTABLE LOGIC / The ICN table shows that both the DAS and CIM utilize the same “Unique Gate Structure” and “Hardware Description Language” for the executable logic, yet does not provide details describing the differences between the DAS and CIM.

The NRC staff have provided the above as examples. The ICN states that the DAS and PMS software were assessed on the elements of diversity established within the ITAAC acceptance criteria (i.e., are different) and that the summary of the observed “differences” between the DAS and PMS software are shown in the table. However, sufficient design descriptions and design details have not been provided at a level of detail that allows a reasonable person to understand the bases for the licensee’s representation that the ITAAC has been successfully completed. There is no elaboration on what these differences are. Given this lack of described differences, the ICN does not adequately demonstrate that the acceptance criteria have been met.

Based on the requirements of 10 CFR 52.99, and the implementing guidance discussed previously, we have determined that the ICN does not contain sufficient information. In order to close this ITAAC, therefore, SCE&G will need to submit a new ICN that addresses concerns outlined in this letter. The new ICN will supersede the original ICN for this ITAAC.

If you have any questions, please call me at (301) 415-5848.

Sincerely,
/RA/

William (Billy) Gleaves, Senior Project Manager
Licensing Branch 4
Division of New Reactor Licensing
Office of New Reactors

Docket Nos.: 52-027
52-028

cc w/o encl: See next page

- PROGRAM ARCHITECTURE / Design details that explain why the DAS and CIM FPGA technology are different are not provided;
- EXECUTABLE LOGIC / The ICN table shows that both the DAS and CIM utilize the same “Unique Gate Structure” and “Hardware Description Language” for the executable logic, yet does not provide details describing the differences between the DAS and CIM.

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***via email**

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(Revised 03/10/2016)

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