

SummerRAIsPEm Resource

From: Gleaves, Bill
Sent: Friday, July 08, 2016 12:27 PM
To: SummerRAIsPEm Resource
Cc: Patel, Chandu
Subject: V.C. Summer LAR 13-35 and Vogtle LAR-15-017 Audit Plan Approved Final 20160707
Attachments: V.C. Summer LAR 13-35 Audit-Plan Vogtle LAR-15-017 Approved Final 20160707.docx

Attached is the Final Approved Audit plan.

Billy
William (Billy) Gleaves
Lead Project Manager for
V.C. Summer Units 2 and 3
Licensing Branch 4
US NRC, Office of New Reactors

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UPDATE OF COMMON QUALIFIED PLATFORM SOFTWARE PROGRAM MANUAL AND

TOPICAL REPORT (LAR 15-017 & LAR 13-35)

AUDIT PLAN

LICENSEES Southern Nuclear Operating Company, Inc. (SNC)
South Carolina Electric & Gas Company (SCE&G)

LOCATION Westinghouse Office
11333 Woodglen Drive, Suite 202
Rockville, MD 20852

DATE AND TIME Tuesday, August 3, 2016 8:30 a.m. - 4:00 p.m.
Wednesday, August 4, 2016 8:30 a.m. - 4:00 p.m.

BACKGROUND

By letter dated February 15, 2016, (Reference 1), Southern Nuclear Operating Company (SNC), the licensee for Vogtle Electric Generating Plant (VEGP) Units 3 and 4, requests the United States Nuclear Regulatory Commission's (NRC) approval of an amendment of the combined licenses (COL) for VEGP Units 3 and 4, nuclear power facility (NPF) COL Numbers NPF-91 and NPF-92, respectively. In addition, by letter dated March 4, 2016, (Reference 2), South Carolina Electric & Gas Company (SCE&G), the licensee for Virgil C. Summer Nuclear Station (VCSNS) Units 2 and 3, requests the NRC's approval of an identical amendment of the COL for VCSNS Units 3 and 4, NPF COL Numbers NPF-93 and NPF-94, respectively. The proposed license amendment requests (LAR) 15-017 and LAR 13-035 would revise the Updated Final Safety Analysis Report (UFSAR) text and tables, and information incorporated by reference into the UFSAR related to updates to WCAP-16096, "Software Program Manual for Common Q™ Systems," and WCAP-16097, "Common Qualified Platform Topical Report." The current licensing basis references WCAP-16096, Revision 01A and WCAP-16097, Revision 0, which have been superseded by later NRC-approved versions. In addition, the proposed LARs discuss the disposition of Plant Specific Action Items (PSAIs) and a Generic Open Item (GOI) within the NRC staff's SEs for WCAP-16096, Revision 4, and WCAP-16097, Revision 3. The newer revisions of WCAP-16096 and WCAP-16097 are being adopted for the Advanced Passive 1000 (AP1000) Protection and Safety Monitoring System (PMS) by adding them to the AP1000 licensing basis.

LAR 15-017 was accepted for NRC review by letter dated March 22, 2016 (Reference 3). LAR 13-035 was accepted for NRC review by letter dated April 25, 2016 (Reference 4).

Enclosure

To support the NRC staff's safety evaluation of LAR 15-017 and LAR 13-035, this audit is planned to decrease the time for the staff to gain a thorough understanding of the proposed revisions as well as review applicable documentation relied upon to justify and demonstrate the continued conformance to applicable regulatory criteria.

In order to gain a better understanding of the proposed LARs design process and licensing documentation revisions, this audit will consist of a two-day document review which will concentrate on all the reports and papers listed in the LARs that were not submitted as part of the LARs. These documents should be electronically uploaded to a secure web portal for NRC staff to review at their headquarters facility in Rockville, Maryland at least two weeks prior to the scheduled audit dates, and/or made available in hard-copy form at the Westinghouse office located in Rockville, Maryland prior to the NRC staff's arrival.

REGULATORY AUDIT BASIS

To support its safety evaluation of LAR-15-017 and LAR 13-035, NRC staff from the Instrumentation, Controls, and Electronics Engineering Branch (ICE) in Division of Engineering Infrastructure and Advanced Reactors (DEIA) will conduct an audit. The purpose of this audit is to determine if the proposed design process changes and licensing documentation revisions continue to conform to the applicable regulatory criteria. This audit will provide information necessary to complete the NRC staff's safety evaluation of the proposed SNC/SCE&G LARs to establish the Common Q SPM and Topical Report (TR) as the licensing basis for the development of the Common Q portion of the PMS in lieu of the applicable digital Instrumentation & Control (I&C) Regulatory Guides.

REGULATORY AUDIT SCOPE

The objective of this audit is to verify via an independent safety evaluation, that the proposed design process changes and licensing documentation for the Common Q SPM and TR continue to conform to applicable regulations, standards, guidelines, plans, and procedures. Specifically, the NRC staff will review the AP1000 application-specific documentation covered by the additional requirements (not previously reviewed), imposed in the PSAIs and GOIs within the NRC staff's SEs for Common Q SPM and TR. Furthermore, the NRC staff will review the implementation of the proposed design process changes and the licensee's analysis results and conclusions of these changes.

The NRC staff will conduct this audit in accordance with the guidance provided in NRO-REG-108, "Regulatory Audits" (Reference 5).

DOCUMENTS/INFORMATION NECESSARY FOR THE REGULATORY AUDIT

The following documents are to be made available to the NRC staff for review during the audit:

- All impacted and referenced documents presented in LAR 15-017 and LAR 13-035
- Software requirements specification for the PMS

- Common Q TR Record of Changes
- Site test plan for the PMS
- AP1000 I&C Program Plan
- Overall digital I&C test strategy

This is not a comprehensive list of documents the staff will be reviewing as part of the audit, as there may be a need to review additional design documents supporting the basis for these documents.

Appropriate handling and protection of proprietary information shall be acknowledged and observed throughout the audit.

TEAM ASSIGNMENTS

Name	Title and Organization	Primary Review Responsibility
Luis Betancourt	Audit Team Leader Electronics Engineer, ICE	I&C Documentation; Software lifecycle processes
William Roggenbrodt	Electronics Engineer, ICE	I&C Documentation; Software lifecycle processes
David Curtis	Chief, DEIA/ICE	Technical Supervision
Chandu Patel	Senior Project Manager (PM)	Licensing PM

AUDIT ACTIVITIES:

Consistent with the Office of New Reactor’s procedure (Reference 5) this audit will be closed to public observation similar to the conduct of an inspection. The audit will be conducted by a team of NRC staff members who are knowledgeable in various aspects of digital I&C. Based on the identified scope, it is expected that the team will spend two days at the Westinghouse office listed above (or through a secure web portal) to conduct the audit. An agenda for the audit is presented in Attachment A.

The team members will be assigned to review specific areas as listed above. They will review documentation and discuss questions with SNC/SCE&G personnel. The audit team leader will communicate specific support requests (e.g., documents to be reviewed or interviews to be scheduled).

Communication between SNC/SCE&G and the NRC staff will be through conference calls or designated personnel located onsite. After this audit review, any additional information that is necessary for the licensees to supplement its amendment for NRC staff to reach a regulatory decision will be requested from the licensee either in a request for additional information and/or will be requested to be made available during a future onsite audit.

LOGISTICS

The regulatory audit will start at 8:30 a.m. of Tuesday, August 3, 2016, and conclude by 5:00 p.m. of Wednesday, August 4, 2016. All requested documents would need to be uploaded to a secure web portal and/or provided in hard-copy form at the Westinghouse Office facility located in Rockville, Maryland, for staff's review.

SPECIAL REQUESTS:

- No security-information is provided.
- SNC/SCE&G personnel to address questions on any of the in-scope documents.

DELIVERABLES

At the conclusion of the audit, the NRC staff will conduct an exit briefing and will provide a summary of audit results in each subject area defined in the audit scope.

The NRC audit report will be issued within 90 days of the completion of the audit.

REFERENCES:

1. Letter from Brian H. Whitley, Southern Nuclear Operating Company (SNC) to U.S. Nuclear Regulatory Commission (NRC), "Software Program Manual and Topical Report (LAR-13-017)", dated February 15, 2016 (ADAMS Accession No. ML16046A009).
2. Letter from April R. Rice, South Carolina Electric & Gas Company (SCE&G) to NRC, "VCSNS Units 2 & 3 LAR 13-35: Request for License Amendment: Update of Common Qualified (Common Q) Platform Software Program Manual and Topical Report", dated March 4, 2016 (ADAMS Accession No. ML16067A145).
3. NRC letter to SNC, "Acceptance Review of Southern Nuclear Operating Company's Licensee Amendment Request (LAR 15-017) for the Vogtle Electric Generating Plant Units 3 and 4 – Common Qualified (Common Q) Platform Software Program Manual and Technical Report (CAC NO. RP9475)," March 22, 2016 (ADAMS Accession No. ML16076A362).
4. NRC letter to SCE&G, "Acceptance Review for Licensee Amendment Request for the Virgil C. Summer Nuclear Station Units 2 and 3: Update of Common Qualified (Common Q) Platform Software Program Manual and Topical Report (LAR 13-35) (CAC NO. RQ0463)," April 25, 2016 (ADAMS Accession No. ML16092A319).
5. NRO-REG-108, "Regulatory Audits," April 2, 2009 (ADAMS Accession No. ML081910260).

ATTACHMENT A

AGENDA

The regulatory audit will take place at Westinghouse's office located in Rockville, Maryland. The regulatory audit is scheduled to begin on Tuesday, August 3, 2016, and end on Wednesday, August 4, 2016.

Tuesday, August 3, 2016

(8:30AM – 9:00AM)

Entrance meeting discussion

(NRC/SNC/SCE&G)

(9:00AM – 3:00PM)

Audit team members review documentation

(NRC/SNC/SCE&G)

Audit team members interview SNC/SCE&G personnel

(NRC/SNC/SCE&G)

(3:00PM – 4:00PM)

Audit team members meet to discuss findings

(NRC)

Wednesday, August 4, 2016

(8:30AM – 2:00PM)

Audit team members review documentation

(NRC/SNC/SCE&G)

Audit team members interview SNC/SCE&G personnel

(NRC/SNC/SCE&G)

(2:00PM – 3:00PM)

Audit team members meet to discuss findings

(NRC)

(3:00PM – 4:00PM)

Exit meeting discussion

(NRC/SNC/SCE&G)