

September 20, 2011

MEMORANDUM: Jeff Cruz, Chief
AP1000 Projects Branch 1
Division of New Reactor Licensing
Office of New Reactors

FROM: Joseph Sebrosky, Senior Project Manager */RA/*
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SUBJECT: SUPPLEMENT TO TRIP REPORT – APRIL 18 – 19, 2011, GEOLOGY SITE
VISIT AND AUDIT IN SUPPORT OF THE V.C. SUMMER COMBINED
LICENSE APPLICATION

This report supplements an audit report dated May 9, 2011, associated with a V.C. Summer audit to view excavation activities for Units 2 and 3 nuclear islands conducted April 18-19, 2011. The May 9, 2011, audit report is available in the Agencywide Documents Access and Management System (ADAMS) under accession number ML111150574. This supplemental report provides the resolution of the quality assurance (QA) observations discussed in the May 9, 2011, report associated with Glenn Associates.

Glenn Associates QA Observation

In the May 9, 2011, report it was noted that Glenn Associates provided excavation survey services for the Unit 2, nuclear island under a subcontract to Shaw. The report discussed potentially inconsistent surveying QA activities with purchase requirements, and it also discussed two corrective action reports (CARs) that were opened as a result of the audit:

- CAR 2011-0021, "Failure to identify the need for the required Quality Assurance/Quality Control review of the Subcontract Extension and Engineering Services Scope of Work (ESSOW) Addition for Glenn Associates Surveying, Inc. Subcontract 1321770104-1160."
- CAR 2011-0022, "A subcontractor (Glenn & Associates) performing surveying for rock mapping of the nuclear island foundation was discovered to have an out of calibration surveying instrument."

The May 9, 2011, audit report noted that in accordance with Office Instruction NRO-REG-108, "Regulatory Audits," the QA observations associated with Glenn Associates were communicated with the Office of New Reactors (NRO) and Region II management for appropriate follow-up actions.

Follow-up Actions

After the issuance of the May 9, 2011, audit report, the staff announced its plans to perform an inspection of the V.C. Summer construction site and subsequently cancelled this inspection. The inspection was announced in a letter to South Carolina Electric and Gas (SCE&G) dated June 9, 2011 (ADAMS accession number ML111590785) and was a direct result of the staff's observation of Glenn Associates surveying QA activities as stated in the May 9, 2011, report. The cancellation of the inspection was announced in a letter to SCE&G dated July 7, 2011 (ADAMS accession number ML111880926). The cancellation letter stated that questions related to survey work at V.C. Summer Units 2 and 3 were adequately resolved.

In preparation for the inspection, the inspection team consulted with NRC staff geologists to determine if surveying was a safety related activity. The inspection team learned that surveying (locating a point in 3-dimensional space) was a non-safety related activity because it is not a basis for the geologic conclusions about detrimental geologic features contained in the final safety analysis report (FSAR). Furthermore, the inspection team learned that geologic mapping (documenting the relative position and nature of geologic features, such as minor faults) was a safety related activity because it captured the objective evidence used by the applicant to draw geologic conclusions about detrimental geologic features contained in the FSAR. The inspection team then evaluated if V.C. Summer and their sub-contractors had appropriately classified the geologic mapping activities.

The objective evidence that the inspection team reviewed that formed the basis for team conclusions and resulting inspection cancellation consisted of the following documents:

- Shaw engineering assessment, "Evaluation of Surveying Subcontract for QA Category Adequacy," dated May 12, 2010
- Shaw CAR 2011-0021 initiated April 19, 2011, status report dated June 15, 2011
- Shaw CAR 2011-0022 initiated April 19, 2011, status report dated June 15, 2011
- V.C. Summer Primary Identification Program (PIP) Serial Number: 0-L-11-0087 discovered April 21, 2011, status report dated June 20, 2011.
- Shaw Engineering Services Scope of Work (ESSOW) No. 12403801-E-C-001, Revision 1, "ESSOW for Surveying and Mapping of Early Site Development Items at V.C. Summer Nuclear Station Units 2 & 3," approved September 27, 2007
- Shaw ESSOW No. 132177E-G-004-0, "ESSOW for Consulting Services for Geological Mapping for SCE&G V.C. Summer Units 2 & 3 by William Lettis & Associates," approved July 23, 2009

The NRC inspection team reviewed the above objective evidence and the May 9, 2011, audit report and learned that V.C. Summer had specified safety related quality assurance requirements for geologic mapping activities.

The inspection team also learned that Shaw, a V.C. Summer sub-contractor, separated multiple site excavation, engineering, and geologic activities, including surveying and geologic mapping, into distinct activities each with unique quality requirements. Specifically, the geologic mapping work performed by William Lettis & Associates was classified as QA Category I (safety related) and the site surveying work performed by Glenn Associates was classified as QA Category II (non-safety related). In addition, the inspectors noted per ESSOW 12403801-E-C-001, that Glenn Associates was required to work under Shaw's quality assurance program for a limited scope of activities invoked by the ESSOW, and surveying was not required to be controlled as a safety related activities under Appendix B requirements.

The May 9, 2011, NRC audit report documented the following:

The addition of this "QA Category II" ESSOW to the original "QA Category N/A" subcontract mandated the required review by QA/QC in accordance with Shaw procedure NEPG 4-26, titled "Engineering Input to Subcontracts," Rev. 1, Section 6.14. However, the required review by QA/QC was not identified and was listed as "N/A" by the responsible engineer.

The NRC inspection team determined that the QA/QC review mentioned above was the failure to meet a procedural requirement that was associated with a non-safety related activity (QA Category II). Therefore, the team determined that a QA/QC review of the change to the subcontract was not a regulatory requirement.

Conclusion

Based on objective evidence review and discussions with the applicant, the NRC inspection team determined that V.C. Summer and Shaw had appropriately classified the quality requirements for geologic mapping (a safety related activity). Furthermore, site surveying was a non-safety related activity and therefore not subject to the requirements of Appendix B. Therefore, the potentially inconsistent surveying QA activities for the V.C. Summer site, as noted in the May 9, 2011, NRC audit report, are considered closed.

Docket Nos.: 52-027 and 52-028

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Enclosures:
None

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