

January 12, 2006

Mr. Jeffery Archie  
Vice President, Nuclear Operations  
South Carolina Electric & Gas Company  
Virgil C. Summer Nuclear Station  
Post Office Box 88  
Jenkinsville, South Carolina 29065

SUBJECT: VIRGIL C. SUMMER FOLLOWUP LETTER REGARDING INSPECTION OF  
REACTOR VESSEL NOZZLE WELDS (TAC NO. MC5751)

Dear Mr. Archie:

South Carolina Electric and Gas Company (SCE&G) has submitted multiple documents associated with the inspection findings in Refueling Outage (RFO) 12 concerning reactor pressure vessel nozzle-to-pipe welds at the Virgil C. Summer Nuclear Station (VCSNS). Communications with your staff indicate that further clarifications on issues addressed in the references discussed below may be useful. Reference 1 provided the Nuclear Regulatory Commission (NRC) staff's evaluation that operation of VCSNS for one additional fuel cycle was acceptable and reflected the NRC staff's understanding that SCE&G would perform an inservice inspection (ISI) of the nozzles, in accordance with Section XI of the American Society of Mechanical Engineers (ASME) Code during RFO 14.

SCE&G's letter of November 6, 2003 (Reference 2), reported the results of the inspections conducted in RFO 14. SCE&G also indicated that information that it had previously provided supported approval of an associated request for relief number RR-II-20 Addenda. SCE&G concluded from its review and evaluation of the results that VCSNS was safe to startup and operate in the future in accordance with the requirements of the ASME Code and requested NRC's approval of the startup of VCSNS.

The NRC staff's letter of December 3, 2003 (Reference 3), documented the NRC staff's approval of restart of VCSNS that had been verbally granted on November 12, 2003. The letter also noted that the relief requested by RR-II-20 Addenda had been verbally granted on November 12, 2003. The NRC staff's letter of February 3, 2004 (Reference 4) documented the authorization of the relief requested by the RR-II-20 Addenda for the second 10-year ISI interval which ended on December 31, 2003.

The final paragraph of Reference 3 stated that NRC would issue separate safety evaluations supporting restart and the granting of RR-II-20 Addenda. As noted above, the relief requested by RR-II-20 Addenda was authorized by Reference 4. The NRC staff has no further plans for documents concerning the restart of VCSNS as the safety-related issues concerning this matter have been addressed in the referenced documents and their associated supporting documents. The NRC staff believes the language of the final paragraph would have been more applicable if it had referred to SCE&G's plans, as summarized in Reference 2 and in the following paragraphs, to conduct further inspections in accordance with ASME Code requirements.

SCE&G's letter dated November 6, 2003, stated that for the reactor vessel loop A hot-leg and cold-leg nozzle welds, the loop B cold-leg weld, and the loop C hot-leg and cold-leg welds, reexamination will occur once in the third ISI interval. The third ISI interval began in February 2004.

SCE&G's letter dated November 6, 2003, stated that for the loop B hot-leg, the accepted flaw would be reexamined during the next three successive inspection periods. The NRC staff understands these next three inspection periods to be the three periods that constitute the 10-year inspection interval that began in January 2004. Therefore, these three inspections will take place during the period 2004 - 2014. SCE&G indicated that in accordance with ASME Code paragraph IWB-2420(c), it would revert to the original ISI plan after the three reexaminations (i.e., after 2014, if the results are acceptable).

SCE&G rescinded an earlier commitment to reexamine the loop C hot-leg weld in the next three successive inspection periods since the flaw has been characterized as an embedded flaw that removes the need for reexamination.

The NRC staff has reviewed the information and plans provided in SCE&G's letter of November 6, 2003, and finds SCE&G's plans for future actions to be acceptable. A draft of this letter was provided to your staff for confirmation of certain details and SCE&G's letter of August 26, 2005, (Reference 6) confirmed the accuracy of those details. The NRC staff trusts that these further clarifications meet the information needs of your staff.

Sincerely,

*/RA/*

Robert E. Martin, Senior Project Manager  
Plant Licensing Branch II-1  
Division of Operator Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-395

Enclosure: List of References

cc w/encl: See next page

SCE&G's letter dated November 6, 2003, stated that for the reactor vessel loop A hot-leg and cold-leg nozzle welds, the loop B cold-leg weld, and the loop C hot-leg and cold-leg welds, reexamination will occur once in the third ISI interval. The third ISI interval began in February 2004.

SCE&G's letter dated November 6, 2003, stated that for the loop B hot-leg, the accepted flaw would be reexamined during the next three successive inspection periods. The NRC staff understands these next three inspection periods to be the three periods that constitute the 10-year inspection interval that began in January 2004. Therefore, these three inspections will take place during the period 2004 - 2014. SCE&G indicated that in accordance with ASME Code paragraph IWB-2420(c), it would revert to the original ISI plan after the three reexaminations (i.e., after 2014, if the results are acceptable).

SCE&G rescinded an earlier commitment to reexamine the loop C hot-leg weld in the next three successive inspection periods since the flaw has been characterized as an embedded flaw that removes the need for reexamination.

The NRC staff has reviewed the information and plans provided in SCE&G's letter of November 6, 2003, and finds SCE&G's plans for future actions to be acceptable. A draft of this letter was provided to your staff for confirmation of certain details and SCE&G's letter of August 26, 2005, (Reference 6) confirmed the accuracy of those details. The NRC staff trusts that these further clarifications meet the information needs of your staff.

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Robert E. Martin, Senior Project Manager  
 Plant Licensing Branch II-1  
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REFERENCES:

1. Letter, K. R. Cotton, NRC, to S. A. Byrne, SCE&G, "Safety Evaluation of Flaws Detected in V. C. Summer Nozzle to Pipe Welds in the Hot Legs of Loops B and C (TAC No. MB4870)," dated October 1, 2002, ADAMS ML022740071
2. Letter, S. A. Byrne, SCE&G, to NRC Document Control Desk, "Submittal of Information Requested by NRC for Integrity Evaluation for Future Operation," dated November 6, 2003, ADAMS ML033140091
3. Letter, K. R. Cotton, NRC, to S. A. Byrne, SCE&G, "Virgil C. Summer Follow-Up Letter Regarding Verbal Permission to Restart," dated December 3, 2003, ADAMS ML033380509
4. Letter, J. A. Nakoski, NRC, to S. A. Byrne, SCE&G, "Virgil C. Summer Nuclear Station - Second 10-Year Inservice Inspection, Request for Relief RR-II-20, RR-II-20 Addenda, and RR-II-21 (TAC No. MC0108)," dated February 3, 2004, ADAMS ML040340450
5. NRC draft letter, ADAMS ML051810662
6. SCE&G letter, "Submittal of Information Requested by NRC for Integrity Evaluation for Future Operation Reactor Vessel Nozzle to Pipe Weld Regions(c)-00-1392)," dated August 26, 2005, ADAMS ML052450149

ENCLOSURE

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