

April 24, 2007

Jeffery B. Archie
Vice President, Nuclear Operations
Virgil C. Summer Nuclear Station
P.O. Box 88
Jenkinsville, SC 29065

SUBJECT: BULLETIN 2004-01, "INSPECTION OF ALLOY 82/182/600 MATERIALS USED IN THE FABRICATION OF PRESSURIZER PENETRATIONS AND STEAM SPACE PIPING CONNECTIONS AT PRESSURIZED-WATER REACTORS," RESPONSE FOR VIRGIL C. SUMMER NUCLEAR STATION, UNIT 1 (TAC NO. MC3516)

Dear Mr. Archie:

On May 28, 2004, the U.S. Nuclear Regulatory Commission (NRC) issued Bulletin 2004-01, "Inspection of Alloy 82/182/600 Materials Used in the Fabrication of Pressurizer Penetrations and Steam Space Piping Connections at Pressurized-Water Reactors," to the industry. This bulletin informed addressees that current methods of inspecting the pressurizer penetrations and steam space piping connections fabricated from Alloy 82/182/600 materials may need to be supplemented with additional measures (e.g., bare-metal visual inspections) to detect pressurizer penetration and steam space piping connection flaws or leakage. The bulletin requested that addressees provide the NRC with information related to the materials of construction, the inspections that have been performed, and the inspections which will be performed to verify the integrity of the pressurizer penetrations and steam space piping connections.

By letters dated June 11, July 26, and November 16, 2004, July 29, 2005, and January 5, 2007, South Carolina Electric & Gas Company provided its responses to items 1a, 1b, 1c, and 1d of Bulletin 2004-01 for the Virgil C. Summer Nuclear Station, Unit 1 (VCSNS). SCE&G's responses described its materials of fabrication and past, current, and future pressurizer penetrations and steam space piping inspection programs at VCSNS.

SCE&G's response to item 1a reported that some of the materials used in the fabrication of the pressurizer penetrations and steam space piping connections were Alloy 82/182/600 materials. This reply required you to provide further responses to the remaining items in the bulletin.

In response to item 1b, SCE&G described prior inspections and inspection results of pressurizer penetrations and steam space piping connections which had been performed at VCSNS. SCE&G's response included the basis for concluding that VCSNS satisfies the applicable regulatory requirements related to the integrity of pressurizer penetrations and steam space piping connections.

In response to item 1c in the bulletin, SCE&G provided a description of the Alloy 82/182/600 pressurizer penetration and steam space piping connection inspection program that will be implemented at your plant during the next and subsequent refueling outages. The description included the items to be inspected; the percent coverage that would be performed at each location; the inspection methods to be used; the qualification standards for the inspection methods and personnel; the process used to resolve any inspection indications; the inspection

documentation to be generated; and the basis for concluding that your plant will satisfy the applicable regulatory requirements related to the structural and leakage integrity of pressurizer penetrations and steam space piping connections. If leaking pressurizer penetrations or steam space piping connections are found, SCE&G indicated that follow-up nondestructive examination (NDE) will be performed to characterize flaws in the leaking penetrations. SCE&G provided its plans for expansion of the scope of NDE to be performed if circumferential flaws are found in any portion of the leaking pressurizer penetrations or steam space piping connections.

In response to item 1d in the bulletin, SCE&G explained why the inspection program identified in the response to item 1c in the bulletin is adequate for the purpose of maintaining the integrity of the VCSNS reactor coolant pressure boundary and for meeting all applicable regulatory requirements which pertain to your facility.

By letter dated July 29, 2005, you provided a response to item 2a in Bulletin 2004-01. This letter provided a statement to the NRC indicating that the inspections described in your response to item 1c of the bulletin were completed during a recent VCSNS outage. The inspections verified that there were no indications of any through wall leakage. Since there was no evidence of leakage observed or indications identified, no NDE to characterize flaws was performed. Also, no corrective actions or repairs with follow up NDE were required.

The NRC staff has completed its activities associated with the review of SCE&G's responses to Bulletin 2004-01 and finds the response to be acceptable. It should be noted that industry commitments or NRC staff regulatory actions may result in the need for you to modify your plans for the inspection and repair of items discussed in Bulletin 2004-01. For example, specific actions addressed in topical report MRP-139, "Materials Reliability Program: Primary System Piping Butt Weld Inspection and Evaluation Guideline" and/or plant-specific Confirmatory Action Letters regarding dissimilar metal butt welds encompassed by Bulletin 2004-01 may exceed the scope of actions addressed in your response to Bulletin 2004-01. It is the NRC staff's expectation that you will revise your plan for the inspection and repair of items discussed in Bulletin 2004-01 consistent with other industry commitments or NRC regulatory actions. This closes the NRC staff's efforts with regard to the review of the Bulletin 2004-01 response for the VCSNS.

Please contact me at 301-415-1493 if you have any questions on this issue.

Sincerely,

/RA/

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

Docket No. 50-395

cc: See next page

April 24, 2007

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