

March 14, 2008

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

SUBJECT: VIRGIL C. SUMMER NUCLEAR STATION – EVALUATION OF NEW
INFORMATION RELATED TO ALLOY 82/182 PRESSURIZER BUTT WELD
INSPECTIONS RE: CONFIRMATORY ACTION LETTER NRR-07-002 (TAC
NO. MD7289)

Dear Mr. Archie:

On March 15, 2007, the U.S. Nuclear Regulatory Commission (NRC) issued Confirmatory Action Letter (CAL) No. NRR-07-002 (Agencywide Documents Access and Management System (ADAMS) Accession Number ML070730269) regarding dissimilar metal welds in the pressurizer surge, spray, and safety/relief nozzle-to-safe end welds at Virgil C. Summer Nuclear Station (VCSNS). The CAL and the supporting commitment letter (ADAMS Accession No. ML070520146) indicate that inspection and mitigation actions may be conducted during your spring 2008 refueling outage, contingent on the industry providing an analysis that demonstrates an acceptable level of safety to the NRC for the operation of these welds until the spring of 2008.

The NRC received MRP-216, Rev. 1, "Materials Reliability Program: Advanced FEA [Finite Element Analysis] Evaluation of Growth of Postulated Circumferential PWSCC [Primary Water Stress-Corrosion Cracking] Flaws in Pressurizer Nozzle Dissimilar Metal Welds," on August 13, 2007 (ADAMS Accession No. ML072410235). Based on our review of this report, NRC concluded that the analysis provided adequate justification to permit inspections during your spring 2008 refueling outage, and that the analysis was applicable to VCSNS. On September 7, 2007, the NRC issued a letter to South Carolina Electric & Gas Company (ADAMS Accession No. ML072410535), informing you that a plant shutdown by December 31, 2007, was no longer needed and VCSNS could continue to operate until the spring 2008 outage.

On March 4, 2008, the NRC became aware of emerging information regarding certain welds in nozzles on a retired pressurizer from a pressurized-water reactor facility. This was related to new reports (ADAMS Accession Nos. ML080701017 and ML080701020) on weld examinations of those nozzles. This information raised questions regarding the technical basis for the September 7, 2007, letter. The NRC dispatched technical experts in non-destructive examination to independently review industry analyses and actions regarding this matter. On March 13, 2008, a public meeting was held in NRC Headquarters, Rockville, MD, with representatives of the eight licensees whose plants had not yet shut down for spring 2008 outages and who are subject to commitments to inspect or mitigate similar welds during spring 2008 outages.

The NRC has evaluated the non-destructive automated phased array ultrasonic examination performed since March 4, 2008, and concluded there is reasonable assurance that there is no structurally significant service-related degradation in those nozzles that would alter the conclusions provided in our letter dated September 7, 2007, that allowed continued operation of VCSNS until the spring 2008 refueling outage. The NRC will continue to evaluate new information as it becomes available. All other requirements of the CAL and the supporting commitment letter regarding enhanced inspection and leakage monitoring requirements for the reactor coolant system and associated reports remain valid.

The CAL will remain open until all CAL commitments pertaining to VCSNS are complete.

Current NRC guidance regarding CALs is contained in the NRC Enforcement Policy and the NRC Enforcement Manual, which are available at the NRC web site at <http://www.nrc.gov/about-nrc/regulatory/enforcement.html> (click on Enforcement Policy or Enforcement Guidance) or by contacting the Government Printing Office (GPO) toll-free at 1-888-293-6498. The GPO is open from 7:00 a.m. to 9:00 p.m. EST, Monday through Friday (except Federal holidays).

In accordance with Title 10 of the *Code of Federal Regulations*, Part 2, Section 390, of the NRC's "Rules of Practice," a copy of this letter will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm.html>.

Sincerely,

/RA by Tim McGinty for/

Catherine Haney, Director
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-395

cc: See next page

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Catherine Haney, Director
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

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ADAMS Accession No. ML080740331

(*) by e-mail

(**) see previous concurrence NRR-106

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