SOUTH CAROLINA ELECTRIC & GAS COMPANY

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VICE-PRESIDENT AND GROUP EXECUTIVE
ENGINEERING AND CONSTRUCTION

COLUMBIA, SOUTH CAROLINA 29218 19 AUG 20 All: 29 August 17, 1979

Mr. James P. O'Reilly, Director United States Nuclear Regulatory Commission Region II 101 Marietta Street, N. W. Atlanta, Georgia 30303

Subject: Virgil C. Summer Nuclear Station

IE Bulletin 79-02/79-02 Rev. 1

Additional Response Docket No. 50-395

Dear Mr. O'Reilly:

South Carolina Electric & Gas Company submitted its response to IE Bulletin 79-02 and IE Bulletin 79-02 Revision 1 on July 5, 1979. The NRC Region II staff reviewed this response and subsequently made a site visit. As a result of this site visit an inspection report was issued on August 2, 1979, for which we are providing the attached additional response.

Should you have further questions concerning this matter, please contact us.

Very truly yours,

E. H. Crews, Jr.

RW: EHCJr:md

CC: Office of Inspection and Enforcement Washington, D. C.

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740265 OFFICIAL COPY VIRGIL C. SUMMER NUCLEAR STATION
UNIT 1

NRC IE BULLETIN 79-02 REVISION 1

ADDITIONAL RESPONSE*

- I Section 2.1 (Item 2) The representative sample totaling ninety-six (96) support anchorages for pipes of a diameter 2 1/2" and larger was chosen to be representative of all the different designs used for such anchorages, regardless of systems. This sampling method provides that parameters affecting designs are evaluated; whereas, a sampling of each system could result in some designs being omitted. It is felt that the sample selected for analysis met the intent of this bulletin.
- II The discussion in Section 3.0 of the response to Bulletin 79-02 refers to small bore cold pipe. For this pipe a minimum factor of safety of 4.0 has been met for the pipe support anchorages. Anchorages of hot pipes of similar sizes are analyzed as described in the remainder of the initial response.
- III Section 3.2 (Response to NRC Item 2) Of the ninety-six (96) pipe support anchorages reanalyzed, approximately 10% had a factor of safety less than 4.0. Since NRC finds this to be an unacceptable condition, the Applicant intends to take the following course of action:
 - During the engineering design verification process of the as-built installation, each pipe support anchorage will be checked to determine its actual factor of safety.
 - 2. For those pipe support anchorages for which the analysis of the as-built system indicates a factor of safety less than 4.0, additional supports will be added or modifications to existing supports will be made to ensure that the minimum factor of safety of 4.0 is met.

- 3. Base plate analysis, which will be performed for future installations, will be done in accordance with the requirements of this bulletin.
- IV Section 3.2 (Response to NRC Item 2) We have identified a potential problem in that there is a small percentage of occurrences where the minimum spacing of 10d between adjacent expansion anchor bolts has not been maintained. Some of these conditions reflect design and, as such, have been approved by engineering. However, in order to ensure the acceptability of each support, site personnel will "walk down" each of the safety related piping systems to establish completion and as-built information. The spacing of the expansion anchor bolts will be on the inspection check list. Each occurrence where the minimum spacing of 10d has been violated will be identified, and an engineering evaluation will be made to ensure the design adequacy of each. The results of this investiation will be reported to NRC after all safety related piping systems have been checked.
 - V Section 3.4 (Response to NRC Item 4) In order to ensure the adequacy of expansion bolts relative to minimum embedment depth and thread engagement for existing installations, a sampling program will be initiated by the Contractor's Quality Control organization. This sampling program should verify the acceptability of installed expansion anchor bolts. Results of this investigation will be reported to NRC.
 - * Additional responses relate to the section numbers identified in the initial response submitted on July 5, 1979.