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VIRGINIA ELECTRIC AND POWER COMPANY

August 1, 1979

Mr. James P. O'Reilly, Director
Office of Inspection & Enforcement
U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

Serial No. 552/070279
PSE&C/DPB:adw:mc

Docket Nos. 50-404
50-405

Dear Mr. O'Reilly:

IE Bulletin 79-14 concerns seismic analyses for as-built safety-related piping systems. The following is our response to this bulletin.

On North Anna Units 3 and 4 no safety-related piping has been installed inside any building. Thus, the inspections requested by the NRC cannot be performed at this time.

For all safety-related piping systems, the input documents that affect seismic analysis of piping systems are:

a) FP - Piping Drawings: provides piping geometry, pipe support and valve locations and orientations, line designation numbers, etc.

b) Line Designation Table: provides line numbers, pipe properties, insulation thicknesses, type of fluid in the pipe, etc.

c) Piping Specifications:

i) Specification for Shop-Fabricated Piping NAS-3023, revised March 1, 1974.

ii) Specification for Field Fabrication and Erection of Piping Outside the Nuclear Island NAS-30119, revised April 20, 1976.

iii) Specification for Piping Engineering and Design, NAS-3340, revised August 1, 1973.

d) Vendor drawings and seismic reports of valves. These provide valve and operator weights, center of gravity, etc.

e) Pipe support specifications:

i) Design Specification for Piping Supports NAS-3491, January 19, 1979.

ii) Other specifications for fabrication, erection, purchase of snubbers, etc. to be developed later.

The output documents from piping and supports stress analysis and design are:

a) AK - Pipe stress analysis summary sheets.

b) BZ - Pipe support drawings.

The final pipe stress analysis and pipe support design are based on the above listed approved input documents which are all controlled by Stone & Webster Engineering Assurance procedures. Construction tolerances, wherever applicable, are specified in drawings and specifications.

The North Anna 3 and 4 Quality Assurance program will ensure that all piping and supports are installed in accordance with drawings and specifications. All deviations are reported to the engineers through Engineering and Design Coordination Reports and Nonconformance and Disposition Reports for resolution and, where appropriate, these changes are also included in the stress analysis of piping systems. This program will be similar to the one presently in effect at North Anna Unit 2 and will also meet the strictest requirements of the ASME code. The inspection elements of the program will be:

a) Verification of as-built layout of all safety-related piping and supports, including valve operator orientation.

b) Verification of the type of supports and embedments used.

c) Verification that the final stress analysis addresses all deviations noted above and that correct valve and operator weights as supplied by the vendor have been used. Piping systems will be restress analyzed if required.

The Service Water Reservoir Spray Piping shown on drawings 12180-FP-19G and H was installed by the North Anna Units 1 and 2 construction forces in accordance with the specifications, design criteria and Quality Assurance program in effect on Units 1 and 2. This piping is being addressed by the Units 1 and 2 project in their response to IE Bulletin 79-14.

This completes our response to IE Bulletin 79-14. If there are any further questions, please contact us.

Very truly yours,

Sam C. Brown, Jr.
Senior Vice President-Power Station
Engineering and Construction

cc: Mr. Victor Stello, Director
Office of Inspection & Enforcement

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation