

UNITED STATES NUCLEAR REGULATORY COMMISSION

50-280

WASHINGTON, D.C. 20555-0001 December 16, 1998

Mr. J. P. O'Hanlon Senior Vice President - Nuclear Virginia Electric and Power Company 5000 Dominion Blvd. Glen Allen, Virginia 23060

SUBJECT:

REQUEST TO USE CODE CASE N-577 AS AN ALTERNATIVE TO THE

REQUIREMENTS OF ASME CODE SECTION XI AT SURRY UNIT 1

(TAC NO. MA 0125)

Dear Mr. O'Hanlon:

By letters dated October 31, 1997, June 18, August 13, and October 20, 1998, you requested that the NRC approve ASME Code Case N-577, "Risk-Informed Requirements for Class 1, 2, and 3 Piping, Method A," with the more detailed provisions in WCAP-14572, as an alternative to the Code examination requirements for piping systems for Surry Unit 1. The ASME Code currently requires you to perform Inservice Inspection (ISI) of Code Category B-J and C-F piping welds during successive 10-year intervals. Your proposed risk-informed ISI program is based on (1) ASME Code Case N-577, (2) WCAP-14572, Revision 1, "Westinghouse Owners Group Application of Risk-Informed Methods to Piping Inservice Inspection Topical Report," and (3) WCAP-14572, Revision 1, Supplement 1, "Westinghouse Structural Reliability and Risk Assessment (SRRA) Model for Piping Risk-Informed Inservice Inspection."

We have reviewed your proposed request as a site-specific request applicable only to Surry Unit 1. The results of our review indicate that you have provided an acceptable alternative to the requirements of ASME Code Section XI and have shown that implementation of the program would result in an insignificant change in risk even with fewer inspections, because the inspections will take place where degradation mechanisms are more likely to occur, and procedures and personnel will target these locations using improved techniques and expanded volumes. We have determined that the alternative method described in your proposal provides equivalent or better examination criteria than those provided by the current Section XI requirements.

We therefore conclude that authorization of your proposed alternative would provide an acceptable level of quality and safety. Pursuant to 10 CFR 50.55(a)(3)(i), the alternative is authorized. This authorization does not constitute NRC approval of Code Case N-577 for generic use. The suitability of Code Case N-577 for generic use will be determined following the staff's review of the Code case. It is expected that the results of the staff's review will be

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documented in Regulatory Guide 1.147, "Inservice Inspection Code Case Acceptability - ASME Section XI Division 1."

Our detailed evaluation and conclusions are documented in the enclosed Safety Evaluation.

Sincerely,

ORIGINAL SIGNED BY:

Herbert N. Berkow, Director Project Directorate II-2 Division of Reactor Projects - I/II Office of Nuclear Reactor Regulation

Docket No. 50-280

Enclosure: Safety Evaluation

cc w/encl: See next page

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Our detailed evaluation and conclusions are documented in the enclosed Safety Evaluation.

Sincerely,

Herbert N. Berkow, Director

Project Directorate II-2

Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket No. 50-280

Enclosure: Safety Evaluation

cc w/encl: See next page

Mr. J. P. O'Hanlon Virginia Electric and Power Company

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