



Donald C. Shelton  
Vice President - Nuclear  
Davis Besse

300 Madison Avenue  
Toledo, OH 43652-0001  
(419) 249-2300

Docket Number 50-346

License Number NPF-3

Serial Number 1936

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United States Nuclear Regulatory Commission  
Document Control Desk  
Washington, D. C. 20555

Subject: Proposed Alternative to ASME Boiler and Pressure Vessel Code  
Section XI Test Requirements for Pressurizer Code Safety Relief  
Valves

Gentlemen:

American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (B&PV) Code, 1986 Edition, Section XI, IWV-3510, Safety Valve and Relief Valve Tests, references ANSI/ASME OM-1-1981, Requirements for Inservice Performance Testing of Nuclear Power Plant Pressure Relief Devices, for the test frequency and test method. ANSI/ASME OM-1-1981, Section 7.3, Periodic Testing, requires that no maintenance, adjustment, disassembly or other activity which could affect the "as found" set pressure or seat tightness data be permitted on safety relief valves prior to testing and that a minimum of twenty percent of each such valve type and manufacture be tested within any twenty-four months. Presently at the Davis-Besse Nuclear Power Station Unit Number 1 (DBNPS), the pressurizer code safety relief valves (RC13A and RC13B) are experiencing minor seal leakage during normal plant operating cycles. Since the necessary equipment for testing the pressurizer code safety relief valves at the ambient temperatures or inlet pressures for the operating environment is not available at the DBNPS, the valves must be sent to an offsite vendor.

In order to meet the requirements of ASME B&PV Code Section XI, IWV-3510 for periodic testing, the pressurizer code safety relief valves would need to be sent to the vendor's test facilities for the "as found" test, returned to the site to be rebuilt and then returned to the vendor for final set pressure determination. The "as found" testing requirement would result in these contaminated valves being shipped offsite twice, and would involve additional radiation exposure and cost, and also increase the potential for the spread of contamination.

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As an alternative, Toledo Edison proposes replacing the installed pressurizer code safety relief valves during refueling with replacement pretested valves. The removed pressurizer code safety relief valves would be disassembled, repaired, and adjusted as required to limit seat leakage at the DBNPS. This work would be performed to approved procedures by qualified maintenance individuals. The DBNPS Repair and Replacement Program fully complies with the requirements of Section XI of the ASME B&PV Code and the National Board R, NR, and VR Program requirements. The pressurizer code safety relief valves would then be shipped to an offsite vendor for final testing. The valves would be returned to the DBNPS for storage until installation during future outages.

Toledo Edison considers this an alternative method which provides an adequate level of quality and safety, while reducing potential contamination and radiation doses. Details of the requested relief and proposed alternative are provided in the attachment of this letter.

This proposed alternative is submitted pursuant to 10CFR50.55a (a)(3) and (g)(5)(iii). Toledo Edison requests that the NRC approve this proposed alternative by November 1, 1991.

Should you have any questions regarding this request, please contact Mr. R. W. Schrauder, Manager - Nuclear Licensing, at (419) 249-2366.

Very truly yours,



KAS/ach

attachment

cc: P. M. Byron, NRC Region III, DB-1 NRC Senior Resident Inspector  
A. B. Davis, Regional Administrator, NRC Region III  
J. B. Hopkins, NRC/NRR DB-1 Senior Project Manager  
J. N. Hannon, Director, NRC Project Directorate III-3  
Utility Radiological Safety Board

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RELIEF REQUEST  
RV-4

SYSTEM: REACTOR COOLANT  
VALVE(s): RC13A, RC13B  
CATEGORY: C  
CLASS: 1  
FUNCTION: Pressurizer Code Safety Relief Valves

ASME B&PV CODE, 1986 EDITION SECTION XI TEST REQUIREMENTS:

IWV-3510, Safety Valves and Relief Valve Tests, references ASME/ANSI OM-1-1981, Requirements for Inservice Performance Testing of Nuclear Power Plant Pressure Relief Devices, Section 7.3, Periodic Testing, which states "...No maintenance, adjustment, disassembly, or other activity which could affect "as found" set pressure or seat tightness data is permitted prior to testing..." OM-1-1981 also states that a minimum of 20 percent of each such valve type and manufacture will be tested within any 24 months.

BASIS FOR RELIEF:

Pressurizer code safety relief valves are developing minor seal leakage during normal plant operating cycles. Since these valves are known to require repair, no "as found" tests will be performed. The Davis-Besse Nuclear Power Station (DBNPS) does not have the proper test equipment for testing at the ambient temperatures or inlet pressures for the operating environment. Therefore, to meet the OM-1-1981 requirements these valves would have to be shipped to the vendor test facilities for "as found" testing and then after being rebuilt at the DBNPS shipped again to the vendor for final set pressure determination. This excessive shipping would increase the potential for both contamination and radiation doses.

ALTERNATIVE TESTING:

Every refueling, installed pressurizer code safety relief valves shall be replaced with pretested replacement valves. The removed code safety relief valves will be disassembled, repaired and adjusted as required to limit seat leakage, or other identified repair by approved National Board R, NR, and VR Program requirements. During disassembly, a visual inspection will be performed per maintenance procedure. The pressurizer code safety relief valves will then be shipped to a vendor for final testing. The final set pressure determination will be made and the valve sealed. The code safety relief valves will be returned to storage at the DBNPS until installation during future outages.