

# NORTHEAST UTILITIES



THE CONNECTICUT LIGHT AND POWER COMPANY  
WESTERN MASSACHUSETTS ELECTRIC COMPANY  
HOLYOKE WATER POWER COMPANY  
NORTHEAST UTILITIES SERVICE COMPANY  
NORTHEAST NUCLEAR ENERGY COMPANY

General Offices • Seiden Street, Berlin, Connecticut

P. O. BOX 270  
HARTFORD, CONNECTICUT 06141-0270  
(203) 665-5000

September 9, 1988

Docket No. 50-336  
B12940

Re: 10 CFR 50, Appendix J

U.S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, D.C. 20555

Gentlemen:

Millstone Nuclear Power Station, Unit No. 2  
10 CFR 50, Appendix J Testing

This will provide additional information on Northeast Nuclear Energy Company's (NNECO) determination to discontinue local leak rate testing (LLRT) on 12 valves located in the Reactor Building Closed Cooling Water (RBCCW) system. The primary basis for NNECO's determination was set forth in prior correspondence.<sup>(1)</sup> In a letter dated February 10, 1988, the Staff indicated that it believed the RBCCW system "should be fabricated to at least (ASME Code) Safety Class 2 requirements in order to not require post-accident leak-tightness of the associated containment isolation valves." (The RBCCW system was designed and licensed as equivalent to a Class 3 system.) The Staff has indicated, however, that it will consider additional information on the current classification of the Class 3 RBCCW system as a closed loop system.

The RBCCW system at Millstone Unit No. 2 satisfies the requirement for a closed loop system as reflected in the plant's licensing basis. The RBCCW lines associated with the Containment Air Recirculation (CAR) coolers were qualified at the time of licensing as a closed loop system inside containment. As such, the piping itself constitutes one isolation barrier and the valves outside containment constitute a second isolation barrier. The classification of the system as closed loop is documented in the Final Safety Analysis Report (FSAR) and Amendment 16 thereto.

Specifically, Amendment 16 to the FSAR states (in response to NRC Question 6.16.1, dated June 27, 1973, as revised July 18, 1975):

- 
- (1) E. J. Mroczka letter to U.S. Nuclear Regulatory Commission, "10CFR50 Appendix J," dated July 14, 1987; and E. J. Mroczka letter to U.S. Nuclear Regulatory Commission, "NRC Staff Request for Additional Information," dated January 7, 1988.

8809140102 880909  
PDR ADOCK 05000336  
P PNU

*Am 1/0*

Penetrations 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 53, and 54, Reactor Building Closed Cooling Water: These penetrations form a closed loop system which is required to operate during post-incident conditions. This system is operating at pressures greater than the containment<sup>(2)</sup> post-incident design pressure and prevents containment leakages.

Thus, at the time of licensing, the lines associated with the CAR coolers on the RBCCW system met the existing criteria for a closed loop system. The RBCCW is discussed in Section 6.3.3 of the Millstone Unit No. 2 Safety Evaluation Report dated May 10, 1974, which states that the system meets GDC 55, 56, and 57. As described in the FSAR and our previous correspondence, the system, under normal operating conditions, is filled with water, and it is required to operate under post-incident conditions. The penetrations in question are open during normal and post-incident conditions and do not serve a containment isolation function or receive a containment isolation signal. The system is pressurized at greater than design basis accident pressures while it is operating, so that containment leakage is prevented. In the unlikely case of leakage due to loop drainage or shutdown, leakage would be collected at its likely point of release (the RBCCW surge tank vent) by the Enclosure Building Filtration System. For these reasons, the valves outside containment do not specifically meet any of the four criteria for containment isolation valves under 10 CFR 50, Appendix J, Section II.H and are not required to be included in the Type C testing program.<sup>(3)</sup>

The Staff's suggestion that the system should be upgraded to Safety Class 2 is based on acceptance criteria that are different from those on which the plant was licensed. Specifically, this position is based on current acceptance criteria of Standard Review Plan Section 6.2.4, Item II.0, which specifies Safety Class 2 for closed loop systems. Millstone Unit No. 2, however, predates the General Design Criteria (see Appendix 1A of the FSAR, page 1.A-1) and the SRP. The plant's design attempted to incorporate the 1967 draft of the GDC, as well as the final GDC published February 20, 1971, to the extent practicable within the limitations of preexisting design commitments. To

- 
- (2) See also FSAR Sections 5.2.8.2.1 (definition of "Type N" penetrations as closed loops per General Design Criterion 57), 5.2.8.4.1, and the penetration categories listed for Penetrations 25, 26, 27, 28, 30, 31, 32, and 33 in FSAR Table 5.2-11.
- (3) As explained in NNECO's July 14, 1987 letter, even in the highly improbable event of system failure with leakage into the RBCCW system (an event beyond the single-failure criterion), no uncontrolled off-site release would occur. Any leakage would first have to displace water in the surge tank and would then, in any case, be collected and processed by the Enclosure Building Filtration System.

U.S. Nuclear Regulatory Commission  
B12940/Page 3  
September 9, 1988

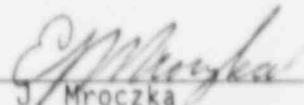
upgrade the RBCCW system now to Safety Class 2 in accordance with the current SRP criteria would represent a change in the plant's licensing basis.

NNECO does not believe such a change in the plant's licensing basis is justified. Accordingly, NNECO does not believe there is a need to reconsider its determination to discontinue LLRTs on the subject valves. Nevertheless, as demonstrated by the acceptable results of our recent Integrated Leak Rate Tests during the past refueling outage, NNECO remains confident that its leak rate testing program will continue to ensure a high degree of containment integrity. (4)

If you have further questions or comments regarding this matter, please contact us.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

  
E. J. Mroczka  
Senior Vice President

cc: W. T. Russell, Region I Administrator  
D. H. Jaffe, NRC Project Manager, Millstone Unit No. 2  
W. J. Raymond, Senior Resident Inspector, Millstone Unit Nos. 1, 2, and 3

---

(4) See NRC Inspection Report No. 50-336/88-04, dated March 31, 1988. No violations or deviations were identified during the Staff's review of the leak rate testing.