

# NORTHEAST UTILITIES



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

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December 21, 1990

Docket No. 50-336  
A08184

Re: NRC Bulletin 89-02

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

Gentlemen:

Millstone Nuclear Power Station, Unit No. 2  
NRC Bulletin 89-02  
"Stress Corrosion Cracking of High-Hardness Type 410  
Stainless Steel Internal Preloaded Bolting in  
Anchor Darling Model S350W Swing Check Valves  
or Valves of Similar Design"

On July 19, 1989, the NRC Staff issued Bulletin 89-02 requesting certain inspections for check valve internal bolting. Northeast Nuclear Energy Company (NNECO) responded for Millstone Unit No. 2 on January 5, 1990, (1) stating our intentions to inspect and replace necessary bolts. In that letter, NNECO identified twenty nine check valves that potentially needed inspection and committed to inspect them not later than the 1990 refueling outage.

Since that time, NNECO has reduced the list of check valves that potentially needed inspection to a total of seventeen. This was accomplished through further evaluation of drawings and discussion with valve manufacturers. One of these valves will not be inspected for several reasons. This is the return line check valve (2-RW-10) for the spent fuel pool cooling system, and it is not isolable from the spent fuel pool. This is a low temperature environment that is not susceptible to stress corrosion cracking. In the worst case failure of the retaining block bolts, it is believed the valve would simply not close on demand, in which case NNECO would compensate with other valves in the system.

NNECO also has made a decision to replace suspect bolting with bolts made of less susceptible material (type 304 stainless steel). Therefore, no failure analysis of old bolting is planned unless an unexpected failure mechanism becomes evident.

(1) E. J. Mrocza letter to NRC on NRCB 89-02, dated January 5, 1990.

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Results

As of November 1990, INECO has inspected twelve of the planned sixteen valves and replaced bolts in all except four of the twelve valves, as explained below. We have not observed any bolt failures, and only one valve had even minor service induced cracking of bolts. As requested by Bulletin 89-02, we are maintaining documentation of these inspections.

For two Containment Spray (CS) check valves (2-CS-5A and 2-CS-5B) in a dry header, NNECO verified acceptable hardness of the original bolts and left them in place. The bolts for two other valves (2-CS-2A and 2-CS-15A) also have acceptable hardness, but NNECO plans to replace them with bolts of less susceptible material at the next suitable outage.

Remaining Valves

The Millstone Unit No. 2 refueling outage was completed with turbine generator startup on November 9, 1990. As allowed by Bulletin 89-02, NNECO hereby proposes alternative schedules for inspection of four remaining check valves.

Three valves (2-RW-4A, 2-RW-4B, and 2-RW-8) in the spent fuel pool cooling system were deferred while identifying and obtaining suitable replacement bolts. Inspection and bolt replacement are planned for December 1990.

One other valve was missed during the recent refueling outage due to a lack of adequate documentation and an oversight in not identifying this earlier. Its location will require postponement of inspection until the next refueling outage (scheduled to begin in April 1992). This valve (2-SI-008) is the High Pressure Safety Injection "A" Header Check valve.

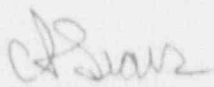
As required by Bulletin 89-02, the results will be reported by separate letter within 60 days of completing the inspections.

Please contact us if you have questions.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

FOR: E. J. Mroczka  
Senior Vice President

BY:   
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C. F. Sears  
Vice President

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

