

NORTHEAST UTILITIES



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

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June 5, 1990

Docket No. 50-336

B13543

Re: 10CFR50.55a

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555

Gentlemen:

Millstone Nuclear Power Station, Unit No. 2
Steam Generator Tube Repair

In accordance with 10CFR50.55a(a)(3), Northeast Nuclear Energy Company (NNECO), on behalf of Millstone Unit No. 2, hereby requests to use plugs fabricated of nickel-chromium-iron UNS N-06690 material (Alloy 690) to plug tubes in the steam generators of Millstone Unit No. 2.

This material is the subject of Code Case N-474-1 of the ASME Boiler and Pressure Vessel Code which has been approved by the Code Committee and which has been recently published. The subject code case authorizes the use of nickel-chromium-iron UNS N-06690 material (Alloy 690) in additional forms in the construction of Section III, Division 1, Class 1 components. Unfortunately, the product Form SB166 (Bar) was unintentionally omitted in the final printing of the code case. Discussions with Christian Sanna, Secretary, ASME Section III, identified that this omission will be corrected, by errata, in a future supplement. The material is specified in ASME Code, Section II Material Specifications SB-163, SB-166, SB-167, and SB-168. Previously, Alloy 690 in tubing form (SB-163) has been authorized for construction of Class 1 components. The subject code case, including SB166 product form, was approved November 30, 1989.

The change to the use of Alloy 690 for tube plugs has been made as a result of material corrosion considerations. The NRC Staff endorsed the use of Alloy 690 for fabrication of mechanical plugs for steam generator tubes in NRC Bulletin No. 89-01, "Failure of Westinghouse Steam Generator Tube Mechanical Plugs," May 15, 1989. Additionally, this material is used in the fabrication of plugs which may be welded into steam generator tubes in Millstone Unit No. 2. Alloy 690 has similar mechanical properties to the Alloy 600 material previously used for tube plugs. The Design Stress Intensity stipulated by the code case and used in the design and qualification of the tube plugs is the same as for Alloy 600 material of the same form.

Submittal of this letter was preceded by a telephone conversation with Mr. H. F. Conrad, NRC, on June 1, 1990, in which verbal concurrence was given to use this material for our specific application.

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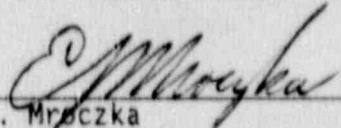
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NNECO respectfully requests that the NRC respond with formal concurrence for the use of this material prior to Millstone Unit No. 2 start-up presently scheduled for June 10, 1990.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY



E. J. Mrbczka
Senior Vice President

cc: T. T. Martin, 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
H. F. Conrad, NRR, Engineering Materials and Chemistry Branch