



**Northeast  
Nuclear Energy**

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March 2, 2000  
B18014

The Northeast Utilities System

Director of Nuclear Material Safety and Safeguards  
U.S. Nuclear Regulatory Commission  
Washington, DC 20555

**Subject:** Millstone Nuclear Power Station Unit No. 1, Docket No. 50-245  
Response to Request for Additional Information Regarding Request for  
Exemption from the Secondary Financial Protection Requirements of  
10CFR140.11(a)(4)

**Reference:** R. P. Necci to Director of Nuclear Material Safety and Safeguards, "Request for  
Exemption From the Financial Protection Requirements of 10 CFR 140.11(a)(4)",  
Letter B17887 dated September 28, 1999.

As requested in your January 19, 2000 letter, Northeast Nuclear Energy Company (NNECO) is submitting the Millstone Unit No. 1 analysis report "Calculation Overview and Analysis Results Summary of the Loss-of-Coolant Inventory Scenario in the Millstone 1 Spent Fuel Pool." This submittal provides the plant specific analysis report that contains the information discussed in the phone call on January 4, 2000. If additional information is needed please contact us.

The report provides non-proprietary details regarding the analysis methodology, assumptions, codes, and results used to conclude that there is no longer a credible potential for runaway zirconium oxidation in the spent fuel storage pool at Millstone Unit No. 1. This conclusion is based on meeting the acceptance criteria provided in SECY 97-186, "Changes to the Financial Protection Requirements for Permanently Shutdown Nuclear Power Plants," dated August 13, 1997.

The analysis methodology includes consideration of the reactor building (which houses the spent fuel pool), the spent fuel pool, and cooling of a hypothetical limiting fuel assembly. Computer codes utilized in preparing the analysis are widely applied in nuclear analyses. Throughout the analysis, conservative judgment and assumptions were incorporated. Finally, Millstone Unit No. 1 specific parameters were included to accurately reflect the facility as of the reference date for the analysis.

This report was prepared based on the analyses used to support the initial request and in response to the request for additional information. This report addresses issues discussed at the November 15, 1999 meeting between NNECO and the NRC staff and has been revised to permit unrestricted distribution of its contents to the public, obviating the need for a proprietary document.

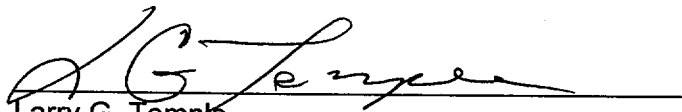
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Based on these Millstone Unit No. 1 specific evaluations, NNECO concludes that a credible potential for runaway zirconium oxidation in the spent fuel storage pool at Millstone Unit No. 1, following complete draining of the water in the pool, no longer exists.

There are no regulatory commitments contained within this letter.

If there are any further questions on the information provided in this letter, please contact Mr. Bryan Ford at (860) 437-5895.

NORTHEAST NUCLEAR ENERGY COMPANY

A handwritten signature in black ink, appearing to read "Larry G. Temple", written over a horizontal line.

Larry G. Temple  
General Manager, Unit 1 Decommissioning

Enclosure

cc: H. J. Miller, Region I Administrator  
L. L. Wheeler, NRC Senior Project Manager, Millstone Unit No. 1  
P. C. Cataldo, Resident Inspector, Millstone Unit No. 1