



**Northeast
Nuclear Energy**

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Docket No. 50-336
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U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555

Millstone Nuclear Power Station, Unit No. 2
Withdrawal of Commitment for Core Exit Thermocouple Upgrade

The purpose of this letter is to withdraw a Northeast Nuclear Energy Company (NNECO) commitment to upgrade the Core Exit Thermocouples (CETs) for Millstone Unit No. 2.

On September 3, 1997,⁽¹⁾ NNECO submitted a letter for Millstone Unit No. 2 which requested a deviation from NUREG-0737, Item II.F.2, "Instrumentation for Detection of Inadequate Core Cooling," and Regulatory Guide (RG) 1.97, Revision 2, regarding the design and qualification criteria for pressurized water reactor CETs. The Millstone Unit No. 2 CET design of a minimum of two CETs to be operable in two quadrants does not meet the guidance to monitor all four quadrants during and following an accident assuming a single failure. Although NNECO provided appropriate justification for this deviation, NNECO committed to upgrade the CET design by implementing a design change to meet NUREG-0737 and RG 1.97 guidance.

On January 12, 1998,⁽²⁾ the NRC issued a Supplemental Safety Evaluation for the Millstone Unit No. 2 CET design. The NRC reviewed the existing Millstone Unit No. 2 CET deviations from NUREG-0737 and RG 1.97 guidance and accepted the present core temperature post-accident monitoring design. In this SER the NRC acknowledged

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- (1) M. L. Bowling, Jr. to U.S. Nuclear Regulatory Commission, "Millstone Nuclear Power Station, Unit No. 2 - NUREG-0737 Item II.F.2 and Regulatory Guide 1.97 Revision 2, Regarding Core Exit Thermocouples," dated September 3, 1997.
- (2) D. G. McDonald, Jr. (USNRC) to M. L. Bowling, "Conformance to NUREG-0737, Item II.F.2, "Instrumentation for Detection of Inadequate Core Cooling," and Regulatory Guide 1.97, Revision 2, Regarding Core Exit Thermocouples - Millstone Nuclear Power Station, Unit No. 2 (TAC No. M99613)," dated January 12, 1998.

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NNECO's upgrade commitment, but recognized that it was subject to change and requested that the Commission be notified of any such change.

NNECO has completed a detailed examination of the requirements involved in the proposed design enhancement, and has determined that cable separation violations would be introduced that are impractical to surmount. As a result, NNECO has concluded that the safety benefit derived from implementing the proposed CET upgrade would be more than offset by the reduction in safety that would be introduced by the deviations from cable separation criteria. Furthermore, in an effort to minimize these cable separation deviations, significant personnel radiation exposure would be required. NNECO has concluded that when balanced against the safety benefit to be derived from implementing the proposed CET modification, this exposure is not warranted in our objective to keep exposures As Low As Reasonably Achievable.

The commitment to upgrade the Millstone Unit No. 2 CET design by implementing a design change to meet NUREG-0737 and RG 1.97 guidance is hereby withdrawn.

If the NRC Staff should have any questions or comments regarding this submittal, please contact Mr. R. G. Joshi at (860) 440-2080.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY



Raymond P. Necci
Vice President - Nuclear Oversight and
Regulatory Affairs

cc: H. J. Miller, Region I Administrator
R. B. Eaton, NRC Senior Project Manager, Millstone Unit No. 2
D. P. Beaulieu, Senior Resident Inspector, Millstone Unit No. 2