



May 23, 1994

Docket No. 50-336  
B14853

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

Millstone Nuclear Power Station, Unit No. 2  
Response to NRC Request for Additional Information,  
Generic Letter 92-01, Revision 1  
"Reactor Vessel Structural Integrity"

In letters dated July 6, 1992,<sup>(1)</sup> January 4, 1993,<sup>(2)</sup> and September 10, 1993,<sup>(3)</sup> Northeast Nuclear Energy Company (NNECO) provided responses to Generic Letter 92-01, Revision 1, "Reactor Vessel Structural Integrity," for Millstone Unit No. 2. The NRC Staff's review of these letters identified one technical issue that required further action. They also requested that NNECO review the computerized data base for Millstone Unit No. 2.

The purpose of this letter is to respond to the NRC Staff's request for additional information, transmitted via a letter dated April 14, 1994.<sup>(4)</sup> Specifically, NNECO was requested to confirm that the upper shelf energy (USE) at the end-of-life (EOL) for Millstone Unit No. 2 will be greater than 50 ft-lbs. The NRC Staff requested this confirmation since NNECO previously transmitted generic

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- (1) J. F. Opeka letter to the U.S. Nuclear Regulatory Commission, "Reactor Vessel Structural Integrity, 10CFR50.54(f), (Generic Letter 92-01, Revision 1)," dated July 6, 1992.
  - (2) J. F. Opeka letter to the U.S. Nuclear Regulatory Commission, "Reactor Vessel Structural Integrity, 10CFR50.54(f), (Generic Letter 92-01, Revision 1), Response to Request For Additional Information," dated January 4, 1993.
  - (3) J. F. Opeka letter to the U.S. Nuclear Regulatory Commission, "Response to Request For Additional Information, Generic Letter 92-01, Revision 1," dated September 10, 1993.
  - (4) G. S. Vissing letter to J. F. Opeka, "Generic Letter (GL) 92-01, 'Reactor Vessel Structural Integrity,' Millstone Nuclear Power Station, Unit No. 2, (TAC No. M83483)," dated April 14, 1994.

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unirradiated USE values for two axial welds (2-203A and 3-203A) which the staff now considers unacceptable.

The above welds were fabricated with weld wire heat no. A8746, and Linde flux type 124-20X150, lot no. 3878. The average Charpy impact energy for this wire heat/flux lot combination at +10° F, is 73 ft-lbs, as described in NNECO's response to GL 92-01. Although this value does not represent the unirradiated USE of the above welds, it can be used as a conservative value to demonstrate compliance with the 10CFR50, Appendix G requirements. Furthermore, this value of 73 ft-lbs, is more conservative than the mean minus two standard deviations (i.e., 75 ft-lbs) obtained by taking all of the Combustion Engineering (CE) weld data into consideration. Using the Regulatory Guide 1.99, Revision 2 methodology, the EOL USE for the above welds is calculated to be 53.3 ft-lbs which is greater than the required 50 ft-lbs.

NNECO, along with the CE Reactor Vessel Group, is currently evaluating a program to determine the feasibility of establishing unirradiated USE for the various types of Linde weld flux (i.e., Linde 0091, 124, 1092) used by CE. If the results of this program indicate that the unirradiated USE of the above welds should be modified, NNECO will notify the Staff accordingly.

The NRC Staff also requested that NNECO review the data base attached to the Staff's April 14, 1994, letter for accuracy. NNECO has completed our review and we believe that the information presented in the Staff's April 14, 1994, letter accurately reflects the information in NNECO's previous submittals, with the exception of a typographical error in the heat number for the 8-203 weld in the summary file for USE (enclosure 2, page 29). The heat number was incorrectly referenced as 101337. The correct heat number is 10137.

In summary, NNECO has identified data that substantiates that the EOL USE is greater than the required 50 ft-lbs and therefore NNECO believes that Generic Letter 92-01 can be closed for Millstone Unit No. 2.

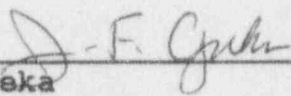
During a discussion between NNECO and the NRC Project Manager on May 19, 1994, it was agreed that this response would be provided by

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May 23, 1994. If you should have any questions, please contact Mr.  
R. H. Young at (203) 665-3717.

Very truly yours,

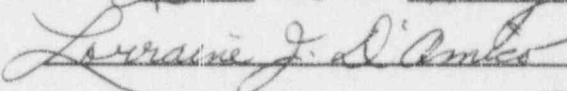
NORTHEAST NUCLEAR ENERGY COMPANY

  
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J. F. Opoka  
Executive Vice President

cc: T. T. Martin, Region I Administrator  
G. S. Vissing, NRC Project Manager, Millstone Unit No. 2  
P. D. Swetland, Senior Resident Inspector, Millstone Unit  
Nos. 1, 2, and 3

Subscribed and sworn to before me

this 23<sup>rd</sup> day of May, 1994

  
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Date Commission Expires: 3/31/98