

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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February 23, 1994

Docket No. 50-336
B14750

Re: Regulatory Guide 1.97

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

Millstone Nuclear Power Station, Unit No. 2
Regulatory Guide 1.97, Revision 2 (TAC No. M75776)

The purpose of this letter is to provide the NRC with additional information on the Hydrogen Monitor variable for Regulatory Guide (RG) 1.97, Revision 2 for Millstone Unit No. 2. The Staff has verbally requested that Northeast Nuclear Energy Company (NNECO) clarify the environmental qualification (EQ) status of the hydrogen monitor components located in the East Electrical Penetration Room.

Summary

NNECO has evaluated the EQ status of the hydrogen monitor components located in the East Electrical Penetration Room. This evaluation concluded that the postaccident environment for these components is classified as mild. Since EQ is not required for mild environment equipment, the EQ attribute in the compliance matrix for these RG 1.97 variables is indicated as "NO."

Background

The hydrogen monitor instrumentation is listed for variables A-7 and C-10 in a compliance matrix submitted to the Staff on March 2, 1992.⁽¹⁾ The matrix entries for the hydrogen monitor instrumentation indicate "NO" for the EQ design criterion. As stated in a submittal dated November 2, 1993,⁽²⁾ the local environment for this equipment, during the events for which it is required, has been determined to be mild. Since EQ is not required for mild environment equipment, the EQ attribute has been listed as "NO" indicating that 10CFR50.49 does not apply. This determination is described in more detail below.

- (1) J. F. Opeka letter to U.S. Nuclear Regulatory Commission, "Compliance with Regulatory Guide 1.97, Revision 2," dated March 2, 1992.
- (2) J. F. Opeka letter to U.S. Nuclear Regulatory Commission, "Regulatory Guide 1.97, Revision 2 - (TAC No. 75776)," dated November 2, 1993.

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Discussion

The hydrogen monitor analyzer panels are located in the East Electrical Penetration Room of the Auxiliary Building. This room is classified as a harsh environment zone (EQ Zone A-26) due to the pressure, temperature and humidity conditions resulting from postulated accidents outside containment, and a harsh radiation environment resulting from a loss of coolant accident inside containment. Since the hydrogen monitor instrumentation is only used for accidents inside containment, only the harsh radiation parameter for this zone is potentially applicable.

The accident radiation value specified for EQ Zone A-26 is based on the conservative use of the radiation dose calculated for the inside containment wall as the maximum dose for the room, which is adjacent to the containment structure. However, since the analyzer panels are not located on the containment wall side of the room, a detailed location-specific evaluation of the radiation environment was performed. This evaluation concluded that the total integrated dose (TID) at the analyzer panels, for the 30-day required postaccident operability period, is less than the 1E4 Rads TID harsh radiation threshold value for this type of electrical equipment. Therefore, the hydrogen monitor analyzer panels are not exposed to a postaccident environment for which qualification to 10CFR50.49 is required.

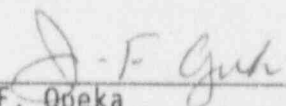
Conclusion

The hydrogen monitor components located in the East Electrical Penetration Room are not exposed to a postaccident environment for which qualification to 10CFR50.49 is required. For RG 1.97 compliance purposes, NNECO has identified this condition by indicating "NO" for the EQ design criterion in the Millstone Unit No. 2 compliance matrix. Since EQ is not required, there is no deviation from the RG 1.97 recommendation for the EQ design criterion for variables A-7 and C-10.

Please contact us if you have any questions.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY



J. F. Opeka
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