

**NORTHEAST UTILITIES**

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

General Offices • Seiden Street, Berlin, Connecticut

P.O. BOX 270  
HARTFORD, CONNECTICUT 06141-0270  
(203) 665-5000

May 30, 1990

Docket No. 50-423  
B13533

Re: 10CFR50.90

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

Reference: E. J. Mrocza letter to the U.S. Nuclear Regulatory Commission,  
Proposed Revision to Technical Specifications--ESF Actuation  
System Instrumentation, dated March 30, 1990.

Gentlemen:

Millstone Nuclear Power Station, Unit No. 3  
Proposed Revision to Technical Specifications  
ESF Actuation System Instrumentation Trip Set Point (TAC No. 76490)

By letter dated March 30, 1990 (reference), Northeast Nuclear Energy Company (NNECO) submitted a proposed revision to the Technical Specifications for Millstone Unit No. 3. The proposed changes to Technical Specification Table 3.3-4 would revise total allowance (TA), sensor error(s), trip set point, and allowable value for turbine trip and feedwater isolation on high-high steam generator water level. These proposed changes are accomplished by adjusting instrument settings and do not involve any physical addition, deletion, or modification to plant components.

In a subsequent discussion with the Staff, the NRC requested NNECO to review the current and the proposed set point for high-high steam generator water level to determine if the proposed changes are more or less conservative with regard to "significant hazards consideration" criteria of 10CFR50.92. The purpose of this letter is to provide the Staff with the requested information.

As stated in the reference, the steam generator high-high level trip provides protection against overflowing the steam generator. The steam generator high-high water level trip provides engineered safety features actuation system (ESFAs) Interlock P-14. This interlock initiates a feedwater isolation which closes the feedwater isolation valves, stops the main feedwater pumps, and trips the turbine. The turbine trip then generates a reactor trip although this is not credited in the analysis. However, this feedwater isolation signal is credited for mitigating the steam generator overflow consequences of an increase in feedwater flow. The details of the analysis are presented in the Millstone Unit No. 3 Final Safety Analysis Report (FSAR) Section 15.1.2.

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The revised steam generator water level high-high trip set point and other associated values such as total allowance, etc., are calculated by the methodology described in WCAP-10991, "Westinghouse Setpoint Methodology for Protection System, Millstone Unit No. 3," which is also the method used in calculating other set points in Table 3.3-4 of the Technical Specifications. The new set point is based on recent data which indicates that there is more error associated (increased channel statistical allowance for abnormal environmental conditions) with level measurement than previously assumed. The current set point is at 82 percent narrow-range level. The proposed revised trip set point is 80.45 percent narrow-range level. Since the new set point better represents the error associated with the level measurement, the change will maintain the assumed performance of ESFAS.

As requested, the following is a revised significant hazards consideration discussion concerning the proposed changes to steam generator high-high water level trip set point.

#### Significant Hazards Consideration

NNECO has reviewed the proposed changes in accordance with 10CFR50.92 and has concluded that the changes do not involve a significant hazards consideration. The basis for this conclusion is that the three criteria of 10CFR50.92(c) are not compromised. The proposed changes do not involve a significant hazards consideration because they would not:

1. Involve a significant increase in the probability or consequences of an accident previously analyzed. As stated above, the proposed revised set point will lower the steam generator level (narrow-range) at which a feedwater isolation will result. The feedwater isolation is credited for mitigating the consequences of an increase in feedwater flow (FSAR Section 15.1.2). With the current trip set point and considering the effects of temperature compensation shift errors, it is possible that a turbine trip/feedwater isolation signal would not be generated at the same time as assumed in the design basis. With the proposed revised set point, this signal will be generated as assumed. Therefore, the ability of the ESFAS to respond as assumed to mitigate an increase in feedwater flow event is improved. Therefore, with the proposed changes, the consequences of an increase in feedwater flow event will be bounded by the existing design basis analysis. Since there are no hardware changes or changes in surveillance practices, the proposed changes will have a negligible impact on the probability of any accident.
2. Create the possibility of a new or different kind of accident from that previously analyzed. There are no physical design changes in plant operating procedures associated with the proposed changes. The proposed changes revise the set points for high-high steam generator water level including total allowance (TA), Z, sensor error (S), trip set point, and allowable value. Furthermore, the proposed change makes the ESFAS more sensitive to steam generator water level. No new failure modes are

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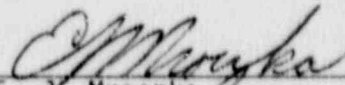
introduced. Therefore, there can be no impact on plant response to the point where a different accident is created.

- 3. Involve a significant reduction in a margin of safety. The changes have no impact on the consequences of an accident or on any of the protective boundaries. There is no negative impact on any of the safety systems. Therefore, there is no reduction in the margin of safety.

We believe the above information, coupled with the information provided in the reference, provides a complete basis for approval of the requested amendment. Of course, should the Staff have any additional questions, we are available to discuss the Staff's concerns at your earliest convenience.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

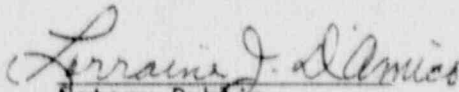
  
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 E. J. Mroczka  
 Senior Vice President

cc: T. T. Martin, Region I Administrator  
 D. H. Jaffe, NRC Project Manager, Millstone Unit No. 3  
 W. J. Raymond, Senior Resident Inspector, Millstone Unit Nos. 1, 2, and 3

Mr. Kevin McCarthy, Director  
 Radiation Control Unit  
 Department of Environmental Protection  
 Hartford, CT 06116

STATE OF CONNECTICUT )  
 ) ss. Berlin  
 COUNTY OF HARTFORD )

Then personally appeared before me, E. J. Mroczka, who being duly sworn, did state that he is Senior Vice President of Northeast Nuclear Energy Company, a Licensee herein, that he is authorized to execute and file the foregoing information in the name and on behalf of the Licensees herein, and that the statements contained in said information are true and correct to the best of his knowledge and belief.

  
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 Notary Public

My Commission Expires March 31, 1993