

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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November 28, 1989

Docket No. 50-245

B13350

Re: 10CFR50.90

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

Gentlemen:

Millstone Nuclear Power Station, Unit No. 1
Proposed Revision to Technical Specifications
Condensate Demineralizer Resin

Pursuant to 10CFR50.90, Northeast Nuclear Energy Company (NNECO) hereby proposes to amend its Operating License, No. DPR-21, by incorporating the changes identified in Attachment 1 into the Technical Specifications of Millstone Unit No. 1.

The criteria of the resin monitoring and resin replacement program have been established to protect the reactor from a high chloride level, should a sea-water leak occur in the main condenser. The proposed changes will reduce the allowable minimum condensate demineralizer capacity from 30 to 5 pounds in Section 3.6.J.1 and in Bases Section 3.6.J. Changing the allowable minimum capacity of the condensate demineralizers from 30 to 5 pounds as chloride ion, prior to replacement of a resin charge, increases the usage of each bed by approximately 14 percent, while still assuring that time is available for an orderly plant shutdown before the quality of the reactor water is degraded. Procedures require a controlled plant shutdown at ≥ 5 umho conductivity in the condensate pump discharge and a scram at ≥ 15 umho. With 5 pounds resin capacity, a leak resulting in 5 umho conductivity will not deplete the resin for a minimum of 3 hours; a leak resulting in 15 umho conductivity will not deplete the resin for approximately 0.5 hours. These times are considered to be sufficient for carrying out the actions required by procedures. In the event that leakage increases to a value that results in resin depletion, plant procedures require a reactor scram and isolation of feedwater to the reactor vessel if the conductivity measured downstream of the demineralizers is ≥ 0.5 umho. This action serves as a backup in the event of demineralizer failure. Also, the requirements relating to regenerated resin will be deleted in Sections 3.6.J.1, 3.6.J.2, 4.6.J.2, and 4.6.J.3 and in Bases Section 3.6.J because Millstone Unit No. 1 no longer regenerates resin.

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NNECO has reviewed the proposed changes in accordance with 10CFR50.92 and has concluded that they do not involve a significant hazards consideration in that the changes do not:

1. Involve a significant increase in the probability or consequences of any accident previously evaluated. Changing the minimum resin capacity of the condensate demineralizers from 30 to 5 pounds as chloride ion does not compromise the quality of the reactor water because Plant Operating Procedures are in place which provide for increased monitoring, plant shutdown, and scram as conductivity levels rise and limits are exceeded. Procedures require a controlled plant shutdown at ≥ 5 umho conductivity in the condensate pump discharge and a scram at ≥ 15 umho. The procedures, which are not being changed, along with a 5-pound minimum capacity will continue to ensure enough time is available for a controlled plant shutdown before the quality of reactor water is degraded to a point where damaging effects on core internals and fuel would occur. Therefore there is no adverse effect to the consequences of the design basis accidents.

Removal of the regeneration requirements has no impact on any conductivity transient since Millstone Unit No. 1 no longer regenerates resin, but rather replaces spent resin with new resin.

2. Create the possibility of a new or different kind of accident. There is no change in plant design or operating procedures proposed by the subject changes. The modification of Technical Specification requirements does not change the probability of any conductivity transient. Additionally, there are no new failure modes introduced by the change. Therefore, there can be no impact on plant response to the point where a different accident is created.
3. Involve a significant reduction in the margin of safety. The changes have no adverse impact on the consequences of an accident or on any of the protective boundaries. Therefore, there is no reduction in any margin of safety.

The Commission has provided guidance concerning the application of standards in 10CFR50.92 by providing certain examples (March 6, 1986, 51FR7751). The changes proposed herein most closely resemble Example (vi), a change which either may result in some increase to the probability or consequences of a previously analyzed accident or may reduce in some way a safety margin, but where the results of the change are clearly within all acceptable criteria. The proposed Technical Specification change request changes the minimum resin value from 30 to 5 pounds as chloride ions, prior to replacement of a condensate demineralizing resin charge and removes requirements related to regeneration of resin, since resin is no longer regenerated at Millstone Unit No. 1. This criteria will continue to provide a sufficient buffer for an orderly plant shutdown should a seawater leak occur in the main condenser.

