

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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March 27, 1986

Docket No. 50-336
B12029

Office of Nuclear Reactor Regulation
Attn: Mr. Ashok C. Thadani, Director
PWR Project Directorate #8
Division of PWR Licensing - B
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Gentlemen:

Millstone Nuclear Power Station, Unit No. 2
Reactor Coolant System High Point Vents

Due to recent increases in the amount of unidentified reactor coolant system (RCS) leakage, Northeast Nuclear Energy Company (NNECO) isolated the pressurizer high point vent on March 21, 1986. Unidentified RCS leakage decreased from approximately 0.75 gpm to approximately 0.1 gpm subsequent to isolation of the pressurizer high point vent. Since RCS high point vents are addressed in 10 CFR 50.44(c)(3)(iii) and Item II.B.1 of NUREG-0737, we are providing the following information to the NRC Staff. No NRC Staff action is requested at this time.

The criteria contained in Item II.B.1 of NUREG-0737 state that procedures addressing the use of these vents "should be directed toward achieving a substantial increase in the plant being able to maintain core cooling without loss of containment integrity for events beyond the design basis (emphasis added)". Therefore, it was solely in the context of beyond design basis events that these high point vent systems were installed and the corresponding procedures developed and reviewed. Subsequent to the issuance of NUREG-0737, the NRC Staff chose to distinguish hydrogen control concerns for design basis accidents (DBAs) from events beyond DBAs. Specifically, a final rule on hydrogen control which is limited to DBAs was issued by the NRC on December 2, 1981. A subsequent rule was issued on January 25, 1985 promulgating hydrogen control requirements for accidents beyond DBAs. This latter rule is not applicable to Millstone Unit No. 2 since we do not have an ice condenser type of containment. Therefore, the only existing regulation applicable to Millstone Unit No. 2 for RCS high point vents is contained in 10 CFR 50.44(c)(3)(iii), which is one element of the December 2, 1981 final rule and only applies to DBAs. Since RCS venting capability is not required for any design basis accident at Millstone Unit No. 2, the applicability of 10 CFR 50.44(c)(3)(iii) is limited.

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OP-2398, "RCS Venting Procedure", for Millstone Unit No. 2 was submitted to the NRC Staff on September 22, 1982.⁽¹⁾ The above information regarding our interpretation of 10 CFR 50.44 and its relationship with Item II.B.1 of NUREG-0737 was provided to the NRC Staff at that time. Safety concerns regarding the operation of these vents for beyond design basis events were also discussed.

In response to Generic Letter No. 83-37⁽²⁾, we informed the NRC Staff on July 25, 1984⁽³⁾ that we believed it was inappropriate to propose technical specification changes pertaining to RCS high point vents due to the safety concerns identified to the NRC Staff for beyond DBA events in our September 22, 1982 letter. The NRC Staff has not yet responded to our July 25, 1984 letter. As such, no technical specifications exist regarding the operability of the RCS high point vents.

Since no technical specifications currently exist, the only requirements on this subject exist in 10 CFR 50.44(c)(3)(iii). 10 CFR 50.44(c)(3)(iii) requires that:

To provide improved operational capability to maintain adequate core cooling following an accident by the end of the first scheduled outage beginning after July 1, 1982 and of sufficient duration to permit required modifications, each light-water nuclear power reactor shall be provided with high point vents for the reactor coolant system, for the reactor vessel head, and for other systems required to maintain adequate core cooling if the accumulation of noncondensable gases would cause loss of function of these systems.

This requirement requires the installation of RCS high point vents by a specific date and does not explicitly address operability requirements for these high point vents. From a practical point of view, this regulation cannot be interpreted to require that RCS high point vents remain operable at all times. In fact, Generic Letter 83-37 contained model technical specifications which would allow operation for thirty (30) days subsequent to a RCS high point vent being inoperable. Even this thirty-day provision may be excessively conservative since this equipment would not be needed except for events beyond the design basis. Therefore, no firm requirement exists regarding the operability of the RCS high point vents at Millstone Unit No. 2.

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- (1) W. G. Council letter to D. M. Crutchfield/R. A. Clark, "TMI Action Plan Item II.B.1 Reactor Coolant System High Point Vents", dated September 22, 1982.
 - (2) D. G. Eisenhut letter to All Pressurized Water Reactor Licensees, "NUREG-0737 Technical Specifications (Generic Letter No. 83-37)", dated November 1, 1983.
 - (3) W. G. Council letter to D. G. Eisenhut, "NUREG-0737 Technical Specifications (Generic Letter No. 83-37)", dated July 25, 1984.

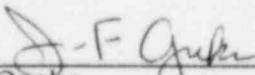
Notwithstanding the lack of a requirement to maintain the RCS high point vents operable at all times, the isolation of the pressurizer high point vent is technically justified due to the ability to relieve noncondensable gases in the pressurizer via the PORVs. Although it is recognized that the pressurizer high point vents were specifically installed to allow a method of relieving hydrogen in the pressurizer, we believe the PORVs are adequate assurance that if a beyond design basis accident were to occur, noncondensable gases could be released from the pressurizer. We have concluded that it is quite unlikely that such vents would be required prior to the upcoming outage, which is currently scheduled to commence in September, 1986. We currently plan to repair the pressurizer high point vents during the upcoming refueling outage. Due to the low probability of a beyond design basis accident event occurring between now and that outage, the fact that these vents would only be needed for beyond design basis accident events, the lack of operability requirements for these vents, and the existence of an alternate means of venting the pressurizer, we concluded that it was appropriate to isolate these vents until the upcoming refueling outage.

To prevent any regulatory uncertainty in the future regarding any operability requirements for the RCS high point vents, we plan to propose on or about June 26, 1986 a license amendment request to incorporate appropriate limiting conditions of operation and associated action statements into the technical specifications for Millstone Unit No. 2. Since we believe that the model technical specifications contained in Generic Letter 83-37 may be excessively conservative, we intend to propose a technically justified alternative to those model technical specifications.

As indicated previously, no NRC Staff action is requested as this letter is submitted for informational purposes only.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY



J. F. Opeka
Senior Vice President