NORTHEAST UTILITIES

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

P.O. BOX 270
HARTFORD, CONNECTICUT 06101
(203) 666-6911

January 20, 1981

Docket No. 50-245
A01429

Director of Nuclear Reactor Regulation
Attn: Mr. Dennis M. Crutchfield, Chief
Operating Reactors Branch #5
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

References: (1) W. G. Counsil letter to D. L. Ziemann, dated January 2, 1979.
(2) D. M. Crutchfield letter to W. G. Counsil, dated December 8, 1980.
(3) W. G. Counsil letter to B. H. Grier, dated June 13, 1980.
(4) W. G. Counsil letter to D. G. Eisenhut, dated October 31, 1980.

Gentlemen:

Millstone Nuclear Power Station, Unit No. 1
SEP Topic VI-4 - Containment Isolation System

In Reference (2) the NRC Staff requested additional information on SEP Topic VI-4, Containment Isolation System. The following information is provided in response to that request.

1) Clarify the discrepancy between your January 2, 1979 letter that indicates that either high drywell pressure or low reactor water level will actuate closure of the purge valves and Technical Specification basis 3.2 that indicates that high radiation levels close the ventilation inlet and outlet valves.

Reference (1) and Technical Specification basis 3.2 indicate that either a high drywell pressure, or low reactor water level condition will initiate closure of the Group II isolation valves, consisting of the following:

(1) Drywell floor drain (SS-3, 4)
(2) Drywell equipment drain (SS-13, 14)
(3) Drywell vent (AC-7)
(4) Drywell vent relief (AC-9)
(5) Drywell and suppression chamber vent from reactor building (AC-8)

(6) Drywell vent to standby gas treatment system (AC-10)
(7) Suppression chamber vent (AC-11)
(8) Suppression chamber vent relief (AC-12)
(9) Suppression chamber supply (AC-6)
(10) Drywell supply (AC-5)
(11) Drywell and suppression chamber supply (AC-4)
(12) N2 makeup to drywell (AC-15 A)
(13) N2 makeup to torus (AC-15 B)
(14) N2 purge stop (AC-17)
(15) N2 makeup stop (AC-14)

The isolation valves that are activated by a main steam tunnel high radiation level are Group I isolation valves consisting of the following:

(1) Main steam line isolation (MS-1A, 2A, 1B, 2B, 1C, 2C, 1D, 2D)
(2) Main steam line drain (MS-5, 6)
(3) Recirculation loop sample line (SM-1, 2)
(4) Isolation condenser vent to main steam line (1C-6, 7)

Therefore, no discrepancy exists between Reference (1) and the Technical Specification bases 3.2 as neither indicates that high radiation levels close the ventilation inlet and outlet valves.

2) Identify, using diagrams and drawings as needed:

a) What isolation valves are involved in each line from the drywell to the atmosphere.

The Group II isolation valves, identified in the above response to Item (1), constitute the isolation valves involved in each line from the drywell to the atmosphere.

b) For each of these valves, identify all signals that initiate automatic or manual closure of that valve.

The initiating signals for an automatic Group II closure are low reactor water level or high drywell pressure. Manual closure of the Group II isolation valves may be accomplished by each valve's remote manual switch in the control room.

c) For each valve, indicate if any of the signals of 2.b above can be bypassed or overridden, and describe the method used to establish each bypass.

An isolation signal to the 2" drywell vent valves (AC-9, AC-12) and the standby gas treatment inlet valve (AC-10) may be overridden by use of an administratively controlled key locked switch. Reference (1) discussed this feature regarding valves AC-9 and AC-12.

Automatic and continuous indication on main control board 903 annunciator A1

is provided to alert the operators when the key locked switch has been operated. In addition, the sample system inboard and outboard isolation valves may be overridden by use of an administratively controlled key locked switch as long as the reactor mode selector switch is in the shutdown position. Automatic and continuous indication on main control board 903 annunciator A4 is provided to alert the operators when the key locked switch has been operated.

3) Should an override bypass more than one actuation signal, provide a commitment to change the design to conform to Criterion 1 above.

The override capabilities described in Item 2c above, block all isolation signals to the respective valves. Conformance to Criterion I of Reference (2) is demonstrated as these valves have functions other than containment isolation. Operation of these valves is required to utilize the standby gas treatment system.

4) The NRC requires that all override and reset switches have physical provisions to aid in the administrative control of the override or reset function. You have indicated that a keylocked switch is used for the 2" drywell vent valves. Describe the physical provisions supplied with your other manual bypass control switches and reset switches. If no such provisions are presently provided, describe the modifications you are going to make to meet Criterion 2 above.

The valves addressed in response to Item 2c above, constitute all of the containment isolation valves capable of being overridden. Northeast Nuclear Energy Company (NNECO) therefore concludes that Criterion 2 is satisfied, as keylock switches are provided. Conformance to applicable NRC criteria regarding reset features is discussed in the response to Question 8.

5) The NRC requires that the override of a system actuation signal be annunciated at the system level. You have indicated that "Any safety actuation signal which is bypassed at the system level will provide continuous indication in the control room." Describe the annunciation system that is used to satisfy Criterion 3 above.

As stated in Reference (1), "Any safety actuation signal which is bypassed at the system level will provide continuous indication in the control room." Any bypassed safety actuation signal at Millstone Unit No. 1 is automatically and continuously annunciated on the main control board annunciator system. This annunciation system conforms to Criterion 3 of Reference (2) and the requirements of Regulatory Guide 1.47.

6) The NRC requires that, at a minimum, containment ventilation isolation (CIV) be accomplished on any of the following diverse conditions:

1. Drywell pressure high
2. Safety injection actuation
3. Drywell radiation high

Describe how Millstone Unit No. 1 satisfies this requirement.

1. At Millstone Unit No. 1 a high drywell pressure condition will initiate a containment ventilation isolation (Group II isolation valves).

2. A feedwater coolant injection or low pressure coolant injection actuation at Millstone Unit No. 1 does not initiate a containment ventilation isolation.

3. A high radiation level in the drywell does not initiate a containment ventilation isolation at Millstone Unit No. 1.

The Staff has verbally advised that this Staff position is fulfilled by accomplishing CIV on one of the three identified parameters. In the case of Millstone Unit No. 1, the parameter used is high drywell pressure.

7) The NRC requires signals that initiate containment isolation be derived from safety-grade (Class 1E) equipment. Describe the qualifications of the equipment used to meet Criterion 5 above.

Signals which initiate containment isolation at Millstone Unit No. 1 are derived from Class 1E equipment. The qualifications of this equipment, identification of discrepant equipment, and the proposed corrective action to be taken are described in Reference (4).

8) Verify that the overriding or resetting of a safety actuation signal does not cause any valve or damper to change position. If this information was supplied as part of TMI Lessons Learned, please provide specific references.

The information requested was supplied in Reference (3) as part of the I&E Bulletin 80-06 response. In Reference (3) NNECO committed to the modification of four valve circuits by January, 1981. Delays in the delivery of equipment necessary for these modifications have precluded completion of the planned action on the original schedule. However, NNECO plans to fulfill this commitment prior to startup of Millstone Unit No. 1 from the current refueling outage.

We trust you find the above information responsive to your request.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

W. G. Counsil
Senior Vice President