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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

December 11, 1979

Docket No. 50-366

Mr. W. G. Council, Vice President  
Nuclear Engineering & Operations  
Northeast Nuclear Energy Company  
P. O. Box 270  
Hartford, Connecticut 06101

Dear Mr. Council:

By letter dated January 3 and April 27, 1979, you responded to our November 29, 1978 letter on Containment Purging at Millstone, Unit No. 2. Your commitment to not purge the Millstone, Unit No. 2 containment in Modes 1 through 4 was found acceptable on an interim basis as documented in our October 30, 1979 letter. Issuance of your proposed Technical Specifications, as modified to meet our requirements, at a later date will resolve our concern in regards to containment purge valve mechanical operations. However, our concern regarding the design of all safety actuation signal circuits, as expressed in our November 29, 1978 letter, remains unresolved.

As a result of this generic review, we have established criteria regarding electrical override/bypass for use in the review of all operating reactors. These criteria are presented in Enclosure 1. Please note that criteria 4 and 5 overlap with our lessons learned requirements; and your system will be evaluated during that review, also

We have determined that the Millstone, Unit No. 2 design is not in conformance with at least the first three of these criteria and you have indicated that no design changes are being considered, because the purge valves are to be maintained in the closed position.

Maintaining the purge valves closed does not resolve our concern with the purge valve circuitry. As a matter of general safety principles, it is the staff's position that such unacceptable circuitry should not be left intact. The potential for a repeat situation developing either during Modes 5 and 6 or during some future operation in Modes 1 through 4 is considered to be an unnecessary and unacceptable risk to public health and safety. Therefore, we request that you: (1) Electrically disconnect and/or remove any bypass/override circuitry that does not satisfy the Enclosure 1 criteria, and (2) modify the basis for proposed Technical Specification (Section 3/4.6.1.7) to make explicitly clear that the purge isolation valves are required to be closed for two reasons - mechanical operability and electrical override considerations.

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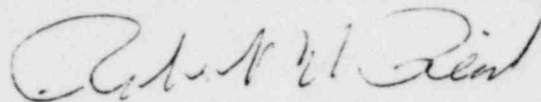
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December 11, 1979

You are requested to provide information on the proposed modifications to the containment purge circuitry and propose changes to the basis of the Technical Specifications within 30 days from receipt of this letter.

The resolution of our concerns regarding the mechanical and electrical problems with the containment purge valve operation does not eliminate our concerns related to other ESF equipment/component design. In light of the Enclosure 1 criteria, you are requested to provide your response to the Enclosure 2 request for additional information within 30 days from receipt of this letter.

Sincerely,



Robert W. Reid, Chief  
Operating Reactors Branch #4  
Division of Operating Reactors

Enclosures:

1. Containment Isolation  
Electrical Override/  
Bypass Design Criteria
2. Request for Additional  
Information

cc: w/enclosures  
See next page

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Northeast Nuclear Energy Company

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CONTAINMENT ISOLATIONELECTRICAL OVERRIDE/BYPASS DESIGN CRITERIA

1. The overriding of one type of safety actuation signal (e.g., radiation) should not cause the blocking of any other type of safety actuation signal (e.g., pressure) to the isolation valves.
2. Sufficient physical features (e.g., key lock switches) should be provided to facilitate adequate administrative controls.
3. The system-level annunciation of the overridden status should be provided for every safety system impacted when an override is active.
4. At least two diverse signals should be provided to initiate isolation of the containment ventilation system. Specifically, containment high radiation, safety injection actuation, and/or containment high pressure should automatically initiate containment isolation.
5. The instrumentation and control systems provided to initiate containment isolation should be designed and qualified as safety-grade equipment.
6. The overriding or resetting of the isolation actuation signal should not cause the automatic reopening of any isolation/purge valve.

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REQUEST FOR ADDITIONAL INFORMATION

MILLSTONE, UNIT NO. 2

1. The design feature of cycling of the normal control switch for ESF equipment/component (e.g., isolation valve) to override a safety actuation signal to the equipment does not facilitate an acceptable degree of administrative control over the use of the override. Describe the design changes you propose to rectify this deficiency.
2. The fact that a safety actuation signal to ESF equipment is overridden must be "annunciated" at the system level whenever such an override is active. Valve position ("status") lights are not sufficient. Describe the design changes you propose to rectify the present deficiency.
3. All equipment which senses plant conditions and initiates operation of ESF systems shall be designed and appropriately qualified as Class 1E equipment. Discuss the qualification of all such equipment at Millstone, Unit No. 2. Describe any changes necessary to achieve full compliance with this requirement.

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