

TEA

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NORTHEAST UTILITIES



THE CONNECTICUT LIGHT AND POWER COMPANY
THE HARTFORD ELECTRIC LIGHT COMPANY
THE WATERBURY ELECTRIC COMPANY
THE WATERBURY GAS AND ELECTRIC COMPANY
NORTHEAST UTILITIES COMPANY
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May 24, 1979

Docket No. 50-336

Mr. Boyce H. Grier
Director, Region I
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, PA 19406

Reference: (1) W. G. Council letter to B. H. Grier dated April 24, 1979.

Gentlemen:

Millstone Nuclear Power Station, Unit No. 2
I&E Bulletin 79-06B

In Reference (1), Northeast Nuclear Energy Company (NNECO) responded to each of the concerns identified in I&E Bulletin 79-06B, regarding review of operational errors and system misalignments identified during the Three Mile Island incident. Since the date of Reference (1), our respective Staffs have discussed this material in considerable detail. Additional questions, essentially requesting clarification/elaboration of the Reference (1) responses, were informally provided by the Office of Nuclear Reactor Regulation. They are provided below, along with our response for each inquiry. Each item is numbered to correspond to the original I&E Bulletin and response.

Question 2.a

Provide assurance that appropriate procedural guidance is available to the operator for monitoring the core for possible voiding during the natural circulation mode. In addition, identify the availability and use of all other instrumentation to monitor core conditions under forced or natural circulation modes of operation.

Response

Guidance has been entered into the appropriate emergency procedures concerning natural circulation operation and the potential for associated voiding. If all Reactor Coolant Pumps (RCP's) must be secured, the operator is directed to monitor the degree of subcooling in the core by comparing core outlet temperature (hot leg or in-core thermocouple temperature) with the saturation temperature for the pressurizer pressure, the establishment of a flow producing core ΔT greater than 10°F and steam dump/atmospheric dump operation in conjunction with auxiliary feedwater flow. In addition, direction has been provided to monitor the potential for voiding by verifying a stable or decreasing core ΔT of less than 50°F.

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Other instrumentation which can be used to monitor core conditions both during natural or forced circulation are the thermocouples in the in-core detector strings, which are mentioned above.

Question 5.a

Verify that procedural guidance is available to guide the operator's interpretation of control room indications that a PORV is stuck open.

Response

The applicable emergency procedures direct the operator to close the PORV isolation valve if discharge pipe temperature or quench tank level, pressure, and temperature indicate a stuck PORV when pressurizer pressure is less than 2300 psia.

Question 5.b

Provide clarification of the statement, "to maintain closed the isolation valve of a stuck open PORV".

Response

Since only one discharge piping temperature indicator is available, the PORV blocking valves will have to be closed sequentially and possibly reopened in an attempt to identify the leaking valve. When the leaking PORV is identified, its isolation valve would not be reopened, that is, it would be maintained closed.

Question 6.b

Verify that the same criteria are used for continued operation of the charging pumps as those used for HPSI pumps.

Response

The procedural criteria for continued operation of the charging pumps are not the same as for continued high pressure safety injection pump operation. Applicable procedures have been revised and contain the same requirements as proposed by I&E Bulletin 79-06B, in that, it will be run for at least twenty minutes and will not be secured unless the reactor coolant is subcooled by at least 50°F, provided other safety conditions, such as vessel integrity, would not be violated. However, the additional requirements recommended by Combustion Engineering for the high pressure safety injection pumps would not be required for the charging pumps except that pressurizer pressure will have to be greater than 1600 psia and increasing.

Question 6.c

The third paragraph of the response seems to be in conflict with the first two paragraphs and with the request of the bulletin. Provide clarification of the meaning of this third paragraph under Section 6.c and assurance that emergency procedures specify that reliable indications that one RCP is not providing forced flow would require the shutdown of only that pump.

Response

Procedures require continued operation of at least one Reactor Coolant Pump (RCP) per loop after initiation of the high pressure safety injection pump unless plant or component parameters indicate continued RCP operation would result in an unsafe plant condition. If these conditions exist, only the affected RCP's would be secured and non-affected pumps would continue to run or could be restarted.

Question 7

Provide assurance that all locked safety-related valves are positioned and maintained in the appropriate position through all modes of operation. Include frequency of visual checks to confirm the correct valve positions of all locked safety-related valves.

Response

Locked safety-related valve positions are verified at the conclusion of any shutdown where the potential exists for system realignment to have occurred. The valve positions are verified and documented using the approved system valve lineups. Different operators perform the alignment for the two redundant trains or facilities. In addition, as discussed in the previous response for Item 7, all valves including locked valves are verified to be in their proper position following maintenance activities. However, there is no requirement for routine checks of locked safety-related valves at a defined frequency.

Question 9.c

Change procedures to require the operation staff individual authorizing equipment maintenance, tests, or surveillance, which affect plant status, should be an on-duty, NRC-licensed Senior Operator. Also, describe the control of plant system status when shift changes are involved.

Response

The requirements for authorizing equipment maintenance, tests, or surveillance are entrusted to individuals qualified for Shift Supervisor (SS) or Supervising Control Operator (SCO) positions. While it is a corporate objective to have all shift supervisory personnel qualified at a Senior Reactor Operator (SRO) level, conditions do not always permit this. All Shift Supervisors are required to hold an SRO license. Currently, approximately 90% of the SCO's hold SRO licenses. SCO's will always be qualified in all other aspects of the position by nature of their knowledge and experience. Therefore, while not requiring a Senior Reactor Operator to authorize these documents, station procedures do ensure an individual who is capable of properly assessing the unit's status and the acceptability of deactivating equipment, will process the various documents.

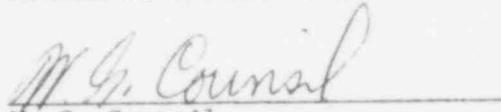
The status of safety-related equipment is maintained in the Shift Supervisor's log. All times associated with Technical Specification ACTION statements are logged, and any ACTIONS still in affect at shift turnover are listed in the initial entry for each shift. Since the oncoming shift reviews this log, a review of the status of the safety-related equipment is completed at the beginning of each new shift.

As indicated in our response to Item 4, in Reference (1), NNECO continues to consider the dedicated auxiliary feedwater system operator to be superfluous. The normal shift complement is fully qualified to initiate auxiliary feedwater in a timely fashion if required, as demonstrated by previous plant conditions which have resulted in its use. As previously stated, this individual may impede the movement of others when timely action is required to respond to changing plant conditions. NNECO, therefore, respectively reiterates its request that prompt consideration be given to eliminate this requirement at Millstone Unit No. 2.

We trust you find the above information sufficient to favorably disposition this request.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY



W. G. Council
Vice President