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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September 13, 1991

Docket No. 50-336
A09755

RE: Employee Concerns

Mr. Charles W. Hehl, Director
Division of Reactor Projects
U. S. Nuclear Regulatory Commission
Region I
475 Allendale Road
King of Prussia, Pennsylvania 19406

Dear Mr. Hehl:

Millstone Nuclear Power Station, Unit No. 2
RI-91-A-0172 & RI-91-A-0173

We have completed our review of identified issues concerning activities at Millstone Station. As requested in your transmittal letter, our response does not contain any personal privacy, proprietary, or safeguards information. The material contained in these responses may be released to the public and placed in the NRC Public Document Room at your discretion. The Staff's transmittal letter and our response have received controlled and limited distribution on a "need to know" basis during the preparation of this response. Additional time to respond to these issues was granted by the Region I Staff in a telephone conversation on August 30, 1991.

ISSUE 172:

After tagging out the Air Ejector Exhaust Fan "B" for preventative maintenance on June 24, 1991, auxiliary contacts in the fan motor's circuit breaker cubicle remained energized.

Request:

Please discuss the validity of the above assertion. If deficiencies are found in the equipment tagging procedures, please notify us of the corrective actions you have taken to prevent recurrence. Please provide us with an assessment of the safety significance of any identified deficiencies.

Response:

The assertion, as stated, is valid. Air Ejector exhaust fans F55A and F55B are interlocked such that de-energizing the "B" fan by opening the power supply circuit does not de-energize all of the contacts associated with this interlock.

A review of the Automated Work Order (AWO) and the associated tag log sheet for the preventive maintenance for fan F55B shows that because of plant operating needs it would not have been practical to de-energize both Air Ejector Exhaust fans, therefore, no additional tagging was provided for the work.

The job leader made a note in the AWO indicating that items A-2 and A-3, which are the inspection of the main and auxiliary contacts, could not be performed because of the cross feed from the other fan unit. However, this note was lined-out by the Electrical Maintenance Supervisor, initialed and dated. When interviewed, the Electrical Maintenance Supervisor indicated that the individual performing the work did not feel comfortable in performing items A-2 and A-3 of the preventive maintenance with voltage potential across some of the auxiliary contacts. The Electrical Maintenance Supervisor then completed the preventive maintenance items and signed off the AWO. As explained in the Background Section below, no individual is pressured to work with energized circuits.

ISSUE 173:

On June 24, 1991 inadequate electrical boundaries were established to support preventative maintenance on the "B" Stator Cooling Water Pump in that the "A" pump was not tagged out to preclude cross-feeding to the "B" pump. This was said to occur because Generator Test Engineering was concerned that the system would drain and air bind.

Request:

Please discuss the validity of the above assertion. If deficiencies are found in the equipment tagging procedures, please notify us of the corrective actions you have taken to prevent recurrence. Please provide us with an assessment of the safety significance of any identified deficiencies.

Response:

The assertion is not valid. Review of the electrical schematic drawing for the Stator Cooling Water Pump, P65B, indicates that there is an interlock between the pairs of Stator Cooling Pumps. However the relays and contacts receive 125 volt DC power from the Plant Annunciator System so that tagging the "A" Stator Cooling Pump would not de-energize the auxiliary contacts in the P65B cubicle.

The Automated Work Order (AWO) and associated tag log sheet for the preventive maintenance for pump P65B show that no additional tagging was provided and no notes to indicate the existence of any problem with tagging were entered into the AWO. The AWO was signed off as complete and satisfactory.

Background for Issues 172 and 173:

Performing preventive maintenance on breakers and motor starters with energized auxiliary contacts is an issue that has been previously addressed and resolved within the Maintenance Department. Guidance for working with electrical equipment was previously provided from the Electrical Maintenance Supervisor to plant maintenance electricians as follows.

a. Test the equipment to ensure that it is de-energized. If there are portions of the circuit that remain energized, the work package should be returned to Operations and additional tagging requested. If after review by the Operations Department, additional tagging is not practical or cannot be provided, one of the following alternatives should be performed:

b. Request permission from the Control Room to remove the starter from the cubicle. Upon concurrence from Operations, remove the starter and complete the PM activity.

c. Perform the work with the starter in the cubicle using proper safety equipment and devices. As a minimum when working on or near energized equipment of 750 volts or less, electricians are instructed to wear low voltage gloves and safety glasses.

d. If an electrician does not find any of the above acceptable, the job is to be stopped and the Electrical Maintenance Supervisor informed.

Department policy has been that any individual not feeling that preventive maintenance can be performed safely on equipment with some auxiliary contacts remaining energized is not to work on jobs that he does not believe are safe. No one has been or will be pressured to work with energized circuits.

Since the procedures and guidance are in place to support the above discussion, there are no deficiencies in the tagging procedures and no corrective action is required. Since the work can be performed safely by following the electrical maintenance guidance, and no one is pressured to work on energized circuits, there is no adverse impact on either nuclear or industrual safety.

It is important to understand that tagging is the mutual responsibility of the Shift Supervisor and the Job Supervisor at Millstone. Included in the responsibilities of the Shift Supervisor are the placing of proper tags for personnel safety and evaluating how the intended tag-out will affect the plant. The Job Supervisor is responsible for verifying that the equipment isolation and tagging represents safe working conditions at the work site.

For maintenance activities, such as troubleshooting, in which the scope of work can not be clearly defined or the circumstances change as the job is being performed, the tagging process may be iterative. In either case, Operations will add or change tagging when requested by a Job Supervisor. If plant conditions do not allow additional tagging, alternate methods such as removing the circuit or working on energized circuits are available.

After our review and evaluation of these issues, we find that they did not present any indication of a compromise of personnel or nuclear safety. We were aware of the concern expressed regarding issue 0172, and since existing practices exempting employees from performing work with which they feel uncomfortable were followed, no action was required. We were not aware of any concern relating to issue 0173 prior to the receipt of the NRC letter. We appreciate the opportunity to respond and explain the basis of our actions. Please contact my staff if there are further questions on any of these matters.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

E. J. Mroczka
Senior Vice President

cc: W. J. Raymond, Senior Resident Inspector, Millstone Unit Nos. 1, 2, and 3
E. C. Wenzinger, Chief, Projects Branch No. 4, Division of Reactor Projects
E. M. Kelly, Chief, Reactor Projects Section 4A
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