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NORTHEAST NUCLEAR ENERGY COMPANY

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April 2, 1986

Docket No. 50-423
A05620
B12041

Mr. Edward C. Wenzinger, Chief
Projects Branch No. 3
Division of Reactor Projects
Region I
U. S. Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, PA 19406

Reference: (1) E. C. Wenzinger letter to J. F. Opeka, "Resident Inspection 50-423/85-74," dated March 7, 1986.

Dear Mr. Wenzinger:

Millstone Nuclear Power Station, Unit No. 3
Response to I&E Inspection No. 50-423/85-74

Pursuant to the provisions of 10CFR2.201, this report is submitted in reply to Reference (1), Appendix A which informed Northeast Nuclear Energy Company (NNECO) of two apparent Severity Level IV Violations. This was the result of items of noncompliance noted during an inspection conducted from November 19, 1985 through January 6, 1986 by your office at the Millstone Unit No. 3 site.

VIOLATION (A)

The Millstone Unit No. 3 Final Safety Analysis Report, Section 17.2 "Quality Assurance During Operations Phase," incorporates the Northeast Utilities QA Program Topical Report by reference. Appendix D to that report commits to Regulatory Guide 1.29 which endorses ANSI N45.2.2-1973. ANSI N45.2.2 specifies that, in Housekeeping Zone III, a written record of the entry and exit of all personnel and material shall be established and maintained.

Station Administrative Control Procedure (ACP) ACP-QA-2.02C, "Work Orders," requires that housekeeping zones and cleanliness levels be determined (Section 6.3.1.6) and that specified housekeeping and cleanliness zones be established and maintained (Section 6.5.2.1) using the Material and Personnel Accountability Logs. Figure 7.3 of ACP-QA-2.02C "Unit 3 Category I Housekeeping/Cleanliness Requirements," lists the Emergency Diesels (EDG) and the Containment Recirculating System (RSS) as Zone III systems.

Work Order M3-85-37851, written for EDG Inspection, required Zone III Housekeeping/Cleanliness during inspection.

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Contrary to the above, while RSS Level Indicator RSS-LE49 was being relocated under Construction Work Permit M3-85-36279 on November 24, 1985, at about 2:00 p.m., the inspector found several horizontal steel deck plates covering the Containment Structure Sump (Engineered Safety Features Sump) removed with no personnel or material accountability in effect. The opening left the Containment RSS pump suction penetrations uncovered and subject to fouling. There were loose tools and deck plate screws spread over the remaining deck plates and in the sump. In addition, during the EDG "A" inspection in accordance with Work Order M3-85-37851, on December 2, 1985, at about 9:30 p.m., the inspector found four crankcase inspection covers removed from the EDG with no material or personnel accountability in effect. There were loose tools, fasteners and pieces of wire spread over the catwalks in close proximity to the open crankcase and oil sump.

This is Severity Level IV Violation.

RESPONSE

The description of circumstances, conditions identified and subsequent NNECO corrective actions provided in Reference (1) with regard to these cleanliness control incidents are essentially complete.

CAUSE

These incidents were caused by personnel error. Plant maintenance and construction force personnel failed to follow the requirements of the applicable Millstone Unit No. 3 Project Document and the Millstone Station ACP governing cleanliness control.

CORRECTIVE ACTIONS

Extensive closeout inspections of both the RSS pump suction penetrations and the "A" EDG crankcase were performed and no foreign materials were detected.

All maintenance personnel have been briefed by the maintenance supervisor on these two incidents; the consequences of the incidents to maintenance performed and the requirement to follow administrative program controls.

Since these incidents, the following additional long-term corrective actions have been taken to both strengthen existing procedural controls and enhance personnel knowledge and understanding of cleanliness requirements:

- Cleanliness requirements will be written into a separate ACP, "System and Component Housekeeping," in order to clarify the requirements and emphasize the importance of housekeeping and material accountability during maintenance and construction activities. This ACP will be implemented by May 31, 1936.

- The General Employee Retraining Program will be modified to include housekeeping and material accountability requirements in the Quality Assurance/Quality Control portion of the program. This program is provided to all personnel at Millstone Station. The curriculum change will be implemented by October 31, 1986.

- QA has been requested to increase surveillance activity of Cleanliness Control Program requirements for both maintenance and construction activities.

VIOLATION (B)

10CFR50, Appendix B, Criterion V, requires that activities affecting quality be accomplished in accordance with prescribed procedures. The Millstone Unit No. 3 Final Safety Analysis Report (FSAR), Section 13.5, "Operating and Maintenance Procedures," states: "Plant operations will be performed in accordance with written and approved station and administrative procedures." Further, FSAR Section 1.8 commits full compliance to Regulatory Guide (RG) 1.33 Revision 2 dated February 1978. Section 3.5.2.a of RG 1.33 Appendix A lists Emergency Power Sources as one of the safety-related PWR systems requiring procedures for start-up, operation and shutdown.

Millstone Unit No. 3 Operating Procedure OP 3346B Rev. 0 "Diesel Fuel Oil System" Section 7.5 provides for transfer of fuel oil between storage tanks by overflowing the day tanks. Step 7.5.5 requires that, upon completion of a transfer, all valves be restored to normal configuration in a step-by-step fashion.

Contrary to the above, on November 21, 1985, the licensee failed to restore the valve line-up to normal configuration after transfer of fuel oil between storage tanks. This was followed by a low-level alarm on an operating diesel engine day tank, and by a 40 gallon fuel oil spill to the plant yard when a storage tank overflowed.

This is a Severity Level IV Violation.

RESPONSE

NNECO performed an investigation of the diesel fuel oil spill incident and made the following determinations:

- The diesel fuel oil system was aligned to fill the "3" fuel oil storage tank (FOST) from the "A" FOST on the November 20, 1985 swing shift (1530-2330) in accordance with a change to the diesel fuel oil system operating procedure.

- The transfer of fuel oil was not started on the swing shift, and the abnormal system alignment was noted in the Shift Turnover Report. However, the shift supervisor (SS) for the midnight shift (2330-0730) on November 21, 1985, understood the fuel oil system to be in a normal alignment rather than aligned for transfer of fuel oil. Due to the number of surveillances being performed and instrumentation indicating "B" FOST level greater than that required by procedure, the mid-shift SS decided not to transfer fuel oil.

- Turnover was made to the day shift (0730-1530) SS on November 21, 1985, indicating that the "A" EDG was ready to run. During the day shift the diesel was started and run in accordance with the EDG operating procedure resulting in the spill of fuel oil from the "B" FOST and a low-level alarm on "A" EDG day tank.

CAUSE

The root cause of this event was an inadequate transfer of system information between the operating shifts. A contributing factor was a failure to question a valve found to be out of position in a system supposedly aligned for operation. Both are personnel errors. In the case of the first, there are administrative controls in place to ensure that information is transferred from shift to shift. An evaluation of this error does not indicate that it is a programmatic problem. The second error can be explained in part by operator attitude. The start-up test program had conditioned the operators to system manipulations under a wide variety of procedures (e.g., Operating Procedures, Preoperational Test Procedures, Special Procedures, etc.). Thus, when the mispositioned valve was identified, it did not have the same level of significance to the operator as it would have had under normal operating conditions.

CORRECTIVE ACTIONS

The initial actions terminated and contained the spill before any fuel oil was introduced into the yard drain system. A system valve line-up was performed which restored the fuel oil system to a normal operating condition.

The following long-term corrective actions have been taken:

- This incident was discussed with all of the individuals involved. The importance of identifying and tracking of abnormal system/plant conditions was stressed. In addition, it was emphasized that off-normal or unexpected conditions must be aggressively investigated.

- The details pertaining to this incident have been provided to all operators.

The above actions have been completed.

We consider this to be our final report for these two violations. We trust that the above information satisfactorily responds to your concerns.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

J. F. Opeka

J. F. Opeka
Senior Vice President

W. F. Fee

By: W. F. Fee
Executive Vice President