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NORTHEAST NUCLEAR ENERGY COMPANY

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April 19, 1991

Docket Nos. 50-245
50-336
50-423
A09440

Re: 10CFR2.201

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555

Reference: (1) C. W. Hehl letter to E. J. Mroczka, dated March 21, 1991, NRC Region I Inspection No. 50-423/91-01.

Gentlemen:

Millstone Nuclear Power Station, Unit Nos. 1, 2, and 3
Reply to Notice of Violation and Notice of Deviation
Inspection Report Nos. 50-423/91

In Reference (1), the NRC Staff transmitted the results of an inspection conducted on January 8 - February 25, 1991. The NRC Staff identified one Severity Level IV violation concerning an individual who was allowed to leave the site without successfully clearing the radiation monitor or notifying Health Physics in accordance with Station procedures.

Several corrective actions have been taken since this event to strengthen the control of activities associated with radiation monitor usage at the exits to the protected area. These corrective actions are described in detail in Attachment 1.

In addition, in Reference (1), the Staff also identified a deviation related to the battery Surveillance Testing. A response to the notice of deviation is included in Attachment 1.

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If you have any questions regarding the information contained in this letter, please contact us.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

FOR: E. J. Mroczka
Senior Vice President

BY: W D Romberg
W. D. Romberg
Vice President

cc: T. T. Martin, Region I Administrator
D. H. Jaffe, NRC Project Manager, Millstone Unit Nos. 1 and 3
G. S. Vissing, NRC Project Manager, Millstone Unit No. 2
W. J. Raymond, Senior Resident Inspector, Millstone Unit Nos. 1, 2, and 3
C. W. Hehl, Director, Division of Reactor Projects, Region 1

Docket Nos. 50-245
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Attachment 1

Millstone Nuclear Power Station, Unit Nos. 1, 2, and 3
Reply to Notice of Violation

and

Response to Notice of Deviation
for Millstone Unit No. 3

April 1991

Millstone Nuclear Power Station, Unit Nos. 1, 2, and 3
Reply to Notice of Violation and Response to Deviation
Inspection Report Nos. 50-423/91-01

Description of Violation

During an NRC inspection conducted on January 8 - February 25, 1991, a violation of NRC requirements was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1990), the violation is listed below:

"Millstone Units 1, 2, and 3 Technical Specification 6.8.1, requires, in part, that written procedures be established, implemented and maintained as recommended in Appendix A of Regulatory Guide 1.33, Revision 2, February 1978. Regulatory Guide 1.33 recommends that procedures concerning contamination control and radiation surveys be developed. Administrative Control Procedure (ACP) 6.18, "Potentially Contaminated Material Control and Personnel Frisking Requirements," implements these procedural controls.

ACP 6.18, Section 6.13 states that all personnel exiting the protected area must successfully clear the radiation monitor prior to exiting the protected area. If an individual causes the portal monitor to alarm on two successive attempts, security personnel must stop the individual from exiting the site and will contact Health Physics Operations.

Contrary to the above, on January 17, 18, 21 and 22 an individual was allowed to leave the site without successfully clearing the radiation monitor prior to exiting the protected area. The individual caused the portal monitor to alarm and security personnel neither stopped the individual from exiting the site nor contacted Health Physics Operations."

This is a Severity Level IV Violation (Supplement IV).

Root Cause

The root cause of this event(s) is the failure of personnel to follow established Station procedures. Several additional factors contributed to this failure and the fact that this failure went undetected for several days. These are as follows:

1. The portal monitor alarms at the South access point (SAP) were not loud enough to provide positive, timely indication to Security personnel that the monitor was in an alarm state.

2. Workers exiting the protected area were allowed to crowd the radiation portal making it difficult to ascertain which individuals may have alarmed the portal monitor once the alarm was detected.

3. Awareness of protected area portal monitor requirements and related procedures may not have been sufficient to ensure each individual (workers, Health Physics, Security) involved in these occurrences understood their shared roles and responsibilities regarding contamination control.

4. The Management of Security and Health Physics Operations were not informed of this individual's medical treatment with radiopharmaceuticals and therefore management oversight of this particular circumstance was not possible.

Corrective Action

Initial action by the Health Physics Operations Manager was to verify that the individual in question was undergoing medical treatment and that his dosimetry had been pulled, restricting him from work in the radiation control area. Briefings were conducted on the issue of notification to the Security Manager when the need for a medical exemption arises. A joint review of problems associated with general passage through the portal monitors was initiated with the Security Department.

Initial action by the Security Manager was to place supervisory personnel at the site protected area egress points to observe and identify weaknesses in the current practices. It was recognized that the volume of the portal monitor audible alarm at the SAP was not loud enough for the guards to hear. All Security guards were briefed on the issue, reiterating their role and responsibilies.

A memorandum was issued by the Director, Millstone Station to supervisory personnel at the station on January 28, 1991, concerning portal monitor usage. The responsibility to notify Health Physics upon alarming the portal monitor was reviewed. In addition, personnel are requested to wait 2-3 feet away until the portal monitor is clear and to pause momentarily while in the monitor with both feet on the footpads. These practices would enhance control over activities at site exit points. The station was in full compliance at this time.

A memorandum was issued by the Unit Services Director on January 29, 1991 concerning medical treatment involving radiopharmaceuticals.

Footprints have been painted on each portal monitor footpad and a special floor sign has been developed to denote the appropriate waiting area for radiation portal use.

An improved instructional sign for portal monitor use was developed and posted on each portal monitor.

The audible alarms on the portal monitors have been evaluated and improvements made where necessary to ensure that the posted Security personnel can hear the radiation portal alarms clearly.

Corrective Action to Prevent Recurrence

In addition to the above corrective actions which constitute substantial steps toward preventing future similar violations, Administrative Control Procedure (ACP) 6.18, "Potentially Contaminated Material Control and Personnel Frisking Requirements" has been revised to include additional guidance and clarifications on portal monitor use and medical treatments.

Required actions for portal monitor alarms and medical exemption policies have been reviewed with Security and Health Physics Operations personnel who may respond to portal monitor alarms

Date by Which NNECO Expects to Achieve Full Compliance

Full compliance has been achieved on January 28, 1991.

Description of Deviation

During an NRC inspection conducted on January 8 to February 25, 1991, a deviation of your license commitments was identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Action," 10 CFR Part 2, Appendix C, (1990), the deviation is listed below:

> "Final Safety Analysis Report Chapter 8.1 states that the recommendations of IEEE 450-1975, "Recommended Practice for Maintenance, Testing, and Replacement of Large Lead Storage Batteries for Generating Stations and Substations," will be implemented for the batteries at Millstone Unit 3.
>
> IEEE 450-1975 recommends that, prior to battery service tests, an equalizing charge and verification that all connections are clean, tight, and free of corrosion should not be performed.
>
> Contrary to the above, on February 5, maintenance activities to verify that the connections were clean, tight, and free of corrosion were performed on the No. 2 battery prior to the battery service test."

Root Cause

The Millstone Unit No. 3 Final Safety Analysis (FSAR) Section 8.1 states that the recommendations of IEEE 450-1975 will be implemented. This is further detailed under FSAR Section 8.3.2 "Tests and Inspection" section. The Millstone Unit No. 3 Technical Specification Sections 4.8.2.1.c and 4.8.2.1.d properly incorporate the 18-month Inspection and Service Test requirements as included in the FSAR. These surveillance requirements are implemented by two maintenance procedures, SP3712NA, "Battery Surveillance Testing/Inspections"

and SP3712NB, "Battery Surveillance Discharge Testing." Specifically, Procedure SP3712NA Section 7.4 incorporates the requirements of the 18-month surveillance inspections and Procedure SP 3712NB Section 7.2 incorporates the requirements for the battery service test discharge.

The root cause of the deviation is a lack of coordination between the two procedures. The 18-month "Service Test Discharge" should be performed prior to the 18-month "Surveillance Inspections." The 18-month "Surveillance Inspections" verify the condition of connectors and their torque which results in the alteration of the as found condition required by the Service Discharge Test. These two surveillance tests were included in the same work order. No sequence requirements were identified.

Corrective Action

Upon notification of the deviation by the NRC Resident Inspector, the validity of the battery discharge test for the battery 301B-1 was evaluated and found satisfactory. This evaluation was based on the satisfactory terminal resistance (less than 150 x 10^{-6} ohms) when measured by the ductor testing prior to the torque checking. All values measured were less than 29 x 10^{-6} ohms, indicating satisfactory terminal to battery post contact. This was the first of four safety-related battery discharge tests during the third refueling outage. The procedure changes were implemented and maintenance personnel were briefed on the requirements to test the battery in the "as found condition" prior to testing the other three safety-related batteries. Specifically, Procedure SP 3712NB, "Battery Surveillance Discharge Testing" was changed to add a "caution" which directed not to alter, torque/tighten, any battery connections prior to the discharge tests. This action adequately resolved the concern related to the sequence of work associated with the battery discharge test. All battery discharge test results were satisfactory.

Corrective Action to Prevent Recurrence

To ensure the complete coordination between the surveillance procedures, a change has been made to Procedure SP 3712NA "Battery Surveillance Testing/Inspections." This change added a precaution which directed not to alter, torque/tighten, any battery connections prior to the discharge test. This procedure change is in place.

As part of Surveillance SP 3712NA, "Battery Surveillance Testing/Inspection," NNECO will continue to perform ductor testing for terminal resistance. If a terminal resistance were to be found unacceptable, an evaluation will be performed prior to the battery discharge test. If any adjustments/repairs are required, this will be evaluated for reportability. NNECO considers this not only meets the intent of IEEE 450, for establishing the as found conditions but also provides a level of confidence that personnel injury and equipment failure would be minimized prior to subjecting the connections to the high currents experienced during the discharge test.

Date by which NNECO Expects to Achieve Full Compliance

Full compliance (a revision to Procedure 3712NB) has been achieved on February 6, 1991.