

NORTHEAST UTILITIES



THE CONNECTICUT LIGHT AND POWER COMPANY
WESTERN MASSACHUSETTS ELECTRIC COMPANY
HOLYOKE HYDRO-ELECTRIC COMPANY
NORTHEAST UTILITIES SERVICE COMPANY
NORTHEAST NUCLEAR ENERGY COMPANY

General Offices • Seiden Street, Berlin, Connecticut

P.O. BOX 270
HARTFORD, CONNECTICUT 06141-0270
(203) 665-5000

July 6, 1988

Docket Nos. 50-336

A07279

Re: 10CFR2.201

Mr. W. T. Russell, Regional Administrator
U.S. Nuclear Regulatory Commission, Region I
475 Allendale Road
King of Prussia, PA 19406

Reference: (1) R. R. Bellamy letter to E. J. Mroczka, dated May
27, 1988, Combined NRC Inspection Report Nos.
50-245/88-06, 50-336/ 88-09, 50-423/88-07.

Gentlemen:

Millstone Nuclear Power Station, Unit No. 2

Response to Notice of Violation

Combined Inspection Nos. 50-245/88-06, 50-336/88-09, 50-423/88-07

In a letter dated May 27, 1988 (Reference (1)), the NRC Staff issued a Notice of Violation to the Northeast Nuclear Energy Company (NNECO) for Millstone Unit No. 2. This action was the result of an unannounced inspection conducted April 11-15, 1988 to review radiation protection program implementation on Millstone Unit Nos. 1, 2 and 3. Reference (1) stated that one of NNECO's activities was not considered in full compliance with NRC requirements. Pursuant to the provisions of 10CFR2.201, NNECO hereby provides the following response to the "Notice of Violation" contained in Reference (1).

During a telephone conversation with Region I on June 9, 1988, the NRC Staff agreed to extend the due date of this response to July 7, 1988.

Requirement

10CFR20.201(b) requires that each licensee make such surveys as may be necessary to comply with all sections of 10 CFR Part 20. As defined in 10CFR20.201(a), "survey" means an evaluation of the radiation hazards incident to the production, use, release, disposal, or presence of radioactive materials or other sources of radiation under a specific set of conditions.

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Finding

Contrary to the above, evaluations made to ensure compliance with 10CFR20.103 during a Millstone Unit No. 2 reactor containment entry on April 9, 1988 were inadequate, in that, the evaluations were based on a remote grab sample which was neither representative of air concentrations at the work locations nor of the time at which work was performed. As a result, an unplanned intake of radioactive iodine by six workers, ranging from 25 to 32 MPC-hours occurred.

This is a Severity Level IV Violation.

Admission or Denial of Violation

NNECO does not contest the violation as set forth in the Notice of Violation.

Root Cause

The cause of the inaccurate evaluation was the utilization of a remote containment grab sample taken approximately 6 hours prior to the actual entry, which upon the actual containment entry was found to be in error. During the actual containment entry for surveys, the 6 man health physics team measured radioactive iodine concentration levels which coupled with the entry duration, resulted in a calculated MPC to personnel ranging from 25-32 MPC-hours.

While NNECO agrees with the finding as written, the following information is provided to explain that licensee survey data was comprehensive and accurate once entry into containment was accomplished. The licensee survey data collection program requires both an external remote grab sample and actual containment physical entry survey to be performed for containment atmospheric evaluation. The purpose of the 6 man short duration health physics entry was to make the required additional higher quality surveys prior to allowing general work to begin. This survey technique is in keeping with the intent of the regulation. The local grab samples taken inside containment were used to calculate individual MPC-hour assignment. The unrepresentative remote grab sample which was taken 6 hours in advance of the actual entry is not considered by industry standards as inordinately premature to an initial containment entry. It should be noted that the minimum time required to draw and analyze gas, particulate, iodine, and tritium samples is approximately 2 hours.

Corrective Action

As a result of this event NNECO has reduced the allowed time period between when a remote sample is taken and the scheduled entry to 2 hours. It is recognized that the time differential between remote sampling and actual entry is just one variable that can affect the actual conditions encountered in the containment workspace. NNECO has addressed improvements to the entry procedures and remote sampling

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system to minimize potential inaccuracies between remote and actual in-situ containment sampling. Additionally, more conservative respiratory protection measures have been specified for the initial entry survey personnel. Improvements to the containment entry procedure were made on April 15, 1988 and to the containment mechanical sampling equipment during the month of April. A brief summary of corrective actions which have been fully implemented is listed below:

1. The cartridge sample holder on the remote sampling apparatus was replaced to provide a better seal around the iodine cartridge.
2. The air sample pump was replaced with a higher flow rate, continuous flow pump which significantly improves the correlation between the containment remote air samples and grab samples taken inside the Containment Building.
3. The frequency of obtaining whole body counts on representative workers has been increased to provide a better bioassay program for iodine following containment entries.
4. Self-contained breathing apparatus will be used during initial entries for air quality surveys.
5. The containment entry procedure, HP 2920, has been revised to specify the normal time between sampling and entry and to provide for a single entry of very short duration to establish air activity prior to allowing subsequent entries.

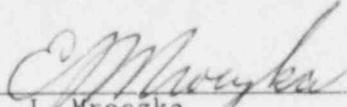
Action to Prevent Recurrence

NNECO considers the completed corrective action steps sufficient to avoid future recurrence.

We trust that the above information satisfactorily responds to your concerns.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY


E. J. Mroczka
Senior Vice President

cc: D. H. Jaffe, NRC Project Manager, Millstone Unit No. 2
W. J. Raymond, Senior Resident Inspector, Millstone Unit Nos. 1, 2
and 3
R. R. Bellamy, Region I

U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20555