

**NORTHEAST UTILITIES**

THE CONNECTICUT LIGHT AND POWER COMPANY  
WESTERN MASSACHUSETTS ELECTRIC COMPANY  
HOLYOKE WATER POWER 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

January 16, 1992  
Docket No. 50-336  
A10070  
Re: 10CFR2.201

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

Reference: E. C. Wenzinger letter to J. F. Opeka, "Millstone Unit 2  
Inspection 91-28," dated December 5, 1991.

Gentlemen:

Millstone Nuclear Power Station, Unit No. 2  
Reply to A Notice of Violation  
Inspection Report No. 50-336/91-28

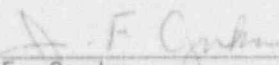
In a letter dated December 5, 1991 (reference), the NRC Staff transmitted the results of an inspection conducted on September 29 through November 15, 1991, at Millstone Unit No. 2. In this inspection report, the NRC identified two Severity Level IV violations. The first issue concerns inoperability of seismic monitors caused by inadequate calibration due to inconsistent adherence to procedures. The second issue related to operators' use of compensatory manual actions as a substitute for automatic actions and as the basis not to enter a technical specification action statement for inoperable equipment. Northeast Nuclear Energy Company (NNECO) understands that the Staff recognizes a due date for this response as January 16, 1992, which is 30 days upon receipt of the referenced letter.

NNECO provides as Attachment 1 to this letter a reply to the NOV's described in the referenced letter. NNECO has elected to contest the violation concerning the inoperability of the seismic monitors and provides an explanation and basis for disputing this violation.

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

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

  
J. F. Opeka  
Executive Vice President

cc: T. T. Martin, Region I Administrator  
G. S. Vissing, NRC Project Manager, Millstone Unit No. 2  
W. J. Raymond, Senior Resident Inspector, Millstone Unit Nos. 1, 2, and 3

Docket No. 50-336  
A10070

Attachment 1

Millstone Nuclear Power Station, Unit No. 2

Reply to A Notice of Violation

January 1992

Millstone Nuclear Power Station, Unit No. 2  
Reply to A Notice of Violation

VIOLATION A

A. Restatement of Violation

"Millstone Unit 2 Technical Specification 6.8.1.a 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 procedures for environmental monitoring equipment calibrations. Peak Recording Accelerograph Calibration, SP 2605D, is a procedure recommended by Regulatory Guide 1.33.

"Procedure SP 2605D, Rev. 3, Figure 10.3 requires technicians to measure the record tape traces with a magnifier and, after excluding the zero reference line, to record the value in inches on Form 2405D-1. Further, Step 8.2, requires data sheets to be properly completed and, if the 'as-found' values do not meet the 'acceptance criteria,' initiate an instrument calibration review record.

"Contrary to the above, on October 11, 1991, a technician did not insert the record plates properly to obtain a zero reference line, which resulted in an inadequate calibration and record for the peak accelerograph. No instrument calibration review record was initiated at that time.

"This is a Severity Level IV Violation, (Supplement I.D)."

B. Background

Millstone Unit No. 2 has a four-element seismic monitoring system which is in full compliance with ANSI Standard N18.5, "Earthquake Instrumentation Criteria for Nuclear Power Plants," and Regulatory Guide 1.12, "Instrumentation for Earthquakes." The system consists of five channels of time history accelerographs, four channels of peak shock accelerographs, one seismic trigger, and one response spectrum recorder.

In response to questions raised concerning Millstone Unit No. 3 seismic monitoring equipment, a review of data taken during the October 11, 1990, calibration of Millstone Unit No. 2 peak shock accelerographs revealed that Surveillance Procedure SP 2405D had been performed incorrectly. The method employed by the technician in accomplishing the surveillance procedure resulted in the obtaining of incomplete data. While the data first appeared to be within acceptance criteria, upon second review, in October of 1991, it was determined that the procedure, properly done, could not have yielded such values. An instrument calibration review

(ICR) was then initiated, and it was determined that SP 2405D was weak in its details of instruction and had indeed not been properly accomplished.

On October 9, 1991, with the plant in Mode 1, at 100 percent power, the peak shock accelerographs were declared inoperable. A special report was submitted on November 18, 1991, (1) in accordance with the requirements of Technical Specifications 3.3.3.3.b, "Seismic Instrumentation," and 6.9.2, "Special Reports." A commitment to inform the NRC of the corrective action taken was opened at that time also.

Changes were incorporated to SP 2405D in order to clarify the weak points. SP 2405D was then completed again during the last reactor cold shutdown (November 21, 1991). Successful completion of the surveillance indicated that the instruments were within calibration tolerances as had been expected.

The remaining three elements of the seismic monitoring system were not affected.

#### Basis for Disputing Violation

The purpose of SP 2405D, "Peak Recording Accelerograph Calibration," is to document the performance of the peak shock recording accelerographs. There are no adjustments made, as implied by the word "calibration," to the instruments in the field. The instruments come from the vendor calibrated, are installed in the field, and "calibration checked" prior to being declared operable. This calibration check is repeated on a refuel frequency and should an instrument fail, it is removed and replaced with a new "calibrated" instrument. The instruments have a long history of good performance and have required infrequent replacement.

In the process of completing SP 2405D, as-found data record plates, as well as test data record plates, are retrieved from each of the instruments. The as-found data record plates usually do not indicate any significant seismic activity since their last installation and it is therefore the test data record plates that are used to determine the condition of the instrument.

The data obtained from the test plates in October of 1990 appeared to be within tolerance and left the technician no reason to doubt its condition and therefore no reason to initiate an ICR. The 1990 test plate data were not determined to be in error until the second review in October of 1991, as a result of the question brought forward by Millstone 3. Upon

---

(1) S. E. Scace letter to U.S. Nuclear Regulatory Commission, "Millstone Nuclear Power Station, Unit No. 2, Inoperable Seismic Monitoring Instrumentation," dated November 18, 1991.

discovering the error, an ICR was initiated and the appropriate action taken.

The violation states that the surveillance in question took place on October 11, 1991. This is in error. The surveillance being referred to actually took place October 11, 1990. The violation also states that the surveillance (in 1990) "... resulted in an inadequate calibration. . . ." This is also in error since it was proven by the 1991 calibration check that the instruments were within the calibration tolerance specified in SP 2405D. The instruments were calibrated and would have performed as designed. NNECO is considering the pursuit of a license amendment that would clarify that the surveillance required for instruments listed in Table 4.3-4 is a "calibration check" and not a "calibration" as defined in Section 1.9 of the technical specifications.

In conclusion, all of the peak shock instruments would have provided sufficient data for evaluation of the response of the plant's structures and equipment to any seismic motion. Therefore, we believe that no violation occurred.

## VIOLATION B

### A. Restatement of Violation

"Technical Specification 3.1.2.2 requires that two boron injection flowpaths to the reactor coolant system (RCS) be operable during plant operation in Mode 1. Technical Specification 4.1.2.2 requires that each flowpath be demonstrated operable by periodic testing of power operated valves in the flowpath. Continued plant operation in Mode 1 is allowed with less than two operable flowpaths, provided that the action statement of Specification 3.1.2.2 is entered and followed.

"Contrary to the above, during plant operation in Mode 1 on November 6, 1991, plant operators determined at 4:57 a.m. that one of the two boron injection flowpaths to the RCS was inoperable when power operated valve 2-CH-514 failed to open during surveillance testing per Technical Specification 4.1.2.2; however, the action statement for Specification 3.1.2.2 was not entered until 10:17 a.m.

"This is a Severity Level IV Violation, (Supplement I.D)."

### B. Reasons for Violation

The cause of this violation is procedural inadequacy in that plant procedures did not prohibit use of a dedicated operator to fulfill operability requirements of components required by the technical specifications in lieu of entering the appropriate action statement. The use of dedicated operators in this manner had been a very infrequent but permissible practice at Millstone Unit No. 2 throughout its operating history.



During routine surveillance activities on the morning of November 6, 1991, the motor-operated combined discharge valve from the boric acid pumps to the charging pump suction, Valve 2-CH-514, was determined to be opening only partially (approximately 20 percent) when operated remotely from the control room. An operator was dispatched to cycle the valve in manual mode locally and the valve stroked smoothly. On-shift supervisory personnel would have disabled the valve in the accident position (i.e., open), but additional surveillance activities' progress required the valve to be shut. Thus, a dedicated operator was stationed at Valve 2-CH-514, in communication with the control room, for the purpose of opening the valve in the event of an occurrence requiring "emergency boration." The normal flow paths used to transport boric acid from the boric acid storage tanks to the reactor coolant system do not involve Valve 2-CH-514.

The operators on duty did not log into the action statement for Technical Specification 3.1.2.2 because:

1. They had demonstrated the valve to be mechanically free and had dedicated an operator to perform the automatic positioning required during an emergency.
2. There was no guidance in plant procedures or departmental instructions nor were the operators aware of any regulatory guidance prohibiting the use of compensatory measures of this type.
3. The operators believed that dedicated operators had been used in the past to satisfy operability requirements of the technical specifications.

When the Operations Manager arrived in the Control Room at approximately 0500 hours, the on-duty shift supervisor discussed the condition of Valve 2-CH-514, the compensatory actions he was taking, the condition of the plant and evolutions in progress, and his belief that entering a technical specification action statement was not required. The Operations Manager reviewed plant conditions and pertinent technical specifications and concurred with the shift supervisor's actions.

C. Corrective Steps Taken and Results Achieved

In addition to stationing the dedicated operator as previously discussed, a Priority 1 Trouble Report was initiated to the Maintenance Department. Repairs on the motor operator of Valve 2-CH-514 began at 1017 hours on November 6, 1991. (It is likely that these repairs would have begun sooner, except that a steam leak and reactor trip, described in

LER 91-012-00,<sup>(2)</sup> occurred at approximately 0645 hours that same morning.) When the troubleshooting of the motor operator began, and the valve was no longer available for immediate operation by the dedicated operator, Action Statement 3.1.2.2 of the technical specifications was entered by the operating shift. The repairs of the valve operator for Valve 2-CH-514 were completed, and the valve was retested on November 7, 1991.

Independent of the events at Millstone Unit No. 2, Generic Letter 91-18 was issued to licensees on November 7, 1991. In the section entitled "Operable/Operability: Ensuring the Functional Capability of a System or Component," paragraph 6.7 describes the NRC's position on the use of manual action in place of automatic action. This position was not known to Millstone Unit No. 2 operations personnel during the decision making concerning Valve 2-CH-514 on November 6, but has since been made clear via this Generic Letter.

D. Corrective Steps Which Will Be Taken to Avoid Future Violations

Operations Department Instruction 2-OPS-1.14, "Conduct of Operations," has been revised to prohibit the assignment of a dedicated operator, in lieu of entering an otherwise applicable technical specification action statement, except when such use of a dedicated operator is specified in an approved procedure.

E. Date of Full Compliance

Full compliance was achieved at 1017 hours on November 6, 1991, when Action Statement 3.1.2.2 of the technical specifications was entered for troubleshooting and repair of the motor operator on Valve 2-CH-514.

F. Generic Implications

Equivalent procedures at Millstone Unit No. 1 and 3 and at the Haddam Neck Plant will be reviewed and revised, as necessary, to ensure that the use of a dedicated operator is properly controlled.

---

(2) S. E. Scace letter to U.S. Nuclear Regulatory Commission, "Facility Operating License No. DPR-65, Docket No. 50-336, Licensee Event Report 91-012-00," dated December 6, 1991.