

JUN 28 1985

Docket No. 50-336

License No. DPR-65

Northeast Nuclear Energy Company
ATTN: Mr. J. F. Opeka
Senior Vice President - Nuclear
Engineering and Operations Group
P. O. Box 270
Hartford, Connecticut 06141-0270

Gentlemen:

Subject: Inspection Report No. 50-336/85-08

This refers to your letter dated May 28, 1985, in response to our letter dated April 25, 1985.

Thank you for informing us of the corrective and preventive actions documented in your letter. These actions will be examined during a future inspection of your licensed program.

Your cooperation with us is appreciated.

Sincerely,

Original Signed By:
Jacque P. Durr

Stewart D. Ebnetter, Director
Division of Reactor Safety

cc:

E. J. Mroccka, Vice President, Nuclear Operations
W. D. Romberg, Station Superintendent
D. O. Nordquist, Manager of Quality Assurance
R. T. Laudenat, Manager, Generation Facilities Licensing
Gerald Garfield, Esquire
Public Document Room (PDR)
Local Public Document Room (LPDR)
Nuclear Safety Information Center (NSIC)
NRC Resident Inspector
State of Connecticut

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bcc:

Region I Docket Room (with concurrences)

E. McCabe, Chief, Section 3B, DRP

RI:DRSS
McBrearty/djh

RM 6/20/85

W RI:DRSS
Wiggins
6/20

D RI:DRSS
Durr
6/26/85

~~RI:DRSS
Martin~~

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06/19/85

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 • Selden Street, Berlin, Connecticut

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

May 28, 1985

Docket No. 50-336
A04846

Mr. Stewart D. Ebnetter, Director
Division of Reactor Safety
Region I
631 Park Avenue
King of Prussia, Pennsylvania 19406

Reference: (1) Stewart D. Ebnetter letter to W. G. Counsil, dated April 25, 1985.

Gentlemen:

Millstone Nuclear Power Station, Unit No. 2
Inspection No. 50-366/85-08

This report is submitted in reply to Reference (1) which informed the Northeast Nuclear Energy Company of a Notice of Deviation. This was the result of an unfulfilled commitment noticed during an inspection conducted February 19 - March 1, 1985.

Deviation

"The licensee submittal dated January 25, 1979 to NRR proposed the use of Appendix III of Section XI, 1974 Edition through Winter 1975 Addenda of the ASME Boiler and Pressure Vessel Code for the ultrasonic examination of piping systems. On June 7, 1979, NRR approved the use of Appendix III, Winter 1975 Addenda, and on June 25, 1979, the licensee acknowledged the NRR approval of use of Appendix III.

Appendix III, Winter 1975 Addenda to the ASME B&PV Code, 1974 Edition requires that ultrasonic calibration blocks shall be made from material (pipe) of the same nominal diameter and nominal wall thickness or pipe schedule as those to be examined.

Contrary to the above, from September 1980, to the present, reactor coolant system piping welds at Millstone Unit 2 were examined using a flat calibration block number UT-6 which is not of the same nominal diameter and nominal wall thickness or pipe schedule as the piping welds to be examined. The following are examples of welds which were examined using calibration block UT-6:

- Cold Leg, Steam Generator No. 2 to Pump Weld P-12-L-1 and 2.
- Cold Leg to Pump 2B Weld P-16-6-3 and 4.
- Safety Injection Weld BSI-C-2001A, Nozzle to Pipe."

~~8506140227~~ 3pp

Response

Corrective steps which have been taken and the results achieved include:

Evaluation and verification that past examinations performed using the flat calibration standard UT-6 were adequate.

The acoustic properties of calibration standard UT-6 were compared with the acoustic properties of representative components which were inspected using this standard. The sensitivities actually used to perform the examinations were compared to the sensitivities required by the ASME Boiler and Pressure Vessel Code, Section XI.

Attenuation differences between calibration standard UT-6 and the components were measured using back wall echos to establish signal response. With the back wall echo from UT-6 set at 80% full screen height (FSH), the measured echo from the component was approximately 18% to 22% FSH which is a 12 Decibel (Db) difference. The actual examination sensitivity used for the examinations was established using the side drilled holes in calibration standard UT-6. This sensitivity, when adjusted to the required ASME Section XI notch sensitivity, is 18Db more sensitive than required. Thus, the actual examination sensitivity was 6 Db greater (18 Db - 12Db) or twice as sensitive as required by ASME Section XI. In addition, the notch in calibration standard UT-6 is only 2% of base material thickness vice 10% base material thickness allowed by ASME Section XI. This further increased the flaw detection sensitivity of the actual examinations beyond that required by ASME Section XI.

It is concluded that, although a flat calibration block not meeting ASME Section XI requirements was used for the examination, the examinations performed had more than adequate sensitivity to meet ASME Section XI requirements. Thus all flaws which would have been detectable if all ASME Section XI requirements were met were detectable by the actual examination performed.

Corrective steps which will be taken to avoid further deviations are:

1. A review by the Inservice Inspection/Non-Destructive Examination (ISI/NDE) Group will check all Millstone Unit 2 calibration standards against applicable ASME Section XI and Regulatory Guide requirements. The results of this review, and a schedule for completion of required corrective actions, if needed, will be provided by November 30, 1985.
2. Future examinations will be conducted using an existing curved calibration standard, UT-15, in lieu of UT-6. This standard is made of the appropriate material, is acoustically similar to the actual material being inspected, and has curvature in the range of interest. The curvature of UT-15 is for 36" diameter pipe while the piping to be examined is 30" and 42" diameter. Relief from exact compliance with ASME Code Section XI requirements will be requested by August 30, 1985.

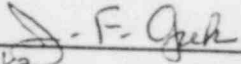
With the addition of holes and notches to meet ASME Section XI requirements, calibration standard UT-15 is considered technically acceptable for piping examinations. This will be verified prior to the next scheduled examination of 30" and/or 42" pipe by conducting an evaluation similar to that described above for UT-6.

3. In December 1985 Millstone Unit 2 will implement the Inservice Inspection Program for the second 10 year interval. This program will be based on the 1980 Edition, Winter 1981 Addenda of ASME Code Section XI. All calibration standards will be upgraded to this standard prior to the next scheduled refueling outage of Millstone Unit 2 (Currently planned for August 1986).

These actions will assure that Northeast Nuclear Energy Company is in full compliance with all applicable non-destructive examination requirements by the next scheduled refueling outage.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY



J. F. Opeka
Senior Vice President