

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

December 13, 1984

Docket No. 50-423
B11358

Director of Nuclear Reactor Regulation
Mr. B. J. Youngblood, Chief
Licensing Branch No. 1
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Reference: B. J. Youngblood letter to W. G. Council, Safety Evaluation
Report (NUREG-1031), dated August 2, 1984.

Gentlemen:

Millstone Nuclear Power Station, Unit No. 3
Response to Materials Engineering Branch SER Open Item No. 12

Attached is Northeast Nuclear Energy Company's (NNECO) response to the
Materials Engineering Branch, Inservice Inspection Section open item concerning
the volumetric examination of class 2 piping welds. We expect the attached
response will resolve the Staff's concerns regarding this open item.

If there are any questions, please contact our licensing representative.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY
et. al.

BY NORTHEAST NUCLEAR ENERGY COMPANY
Their Agent

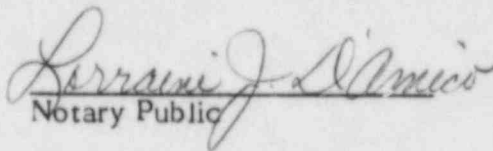
A handwritten signature in dark ink, appearing to read 'W. G. Council', written over a horizontal line.
W. G. Council
Senior Vice President

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Boo!
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STATE OF CONNECTICUT)
) ss. Berlin
COUNTY OF HARTFORD)

Then personally appeared before me W. G. Council, who being duly sworn, did state that he is Senior Vice President of Northeast Nuclear Energy Company, an Applicant herein, that he is authorized to execute and file the foregoing information in the name and on behalf of the Applicants herein and that the statements contained in said information are true and correct to the best of his knowledge and belief.


Notary Public

My Commission Expires March 31, 1988

Millstone Nuclear Power Station, Unit No. 3
SER Open Item No. 12
Material Engineering Branch
Inservice Inspection Section

Volumetric Inspection of Class 2 Component (Section 6.6.3)

10 CFR 50.55a(b)(2)(iv) requires that ASME Code, Class 2, piping welds in the residual heat removal (RHR) systems, emergency core cooling systems (ECCS), and containment heat removal (CHR) systems shall be examined. These systems should not be completely exempted from preservice volumetric examination based on Section XI exclusion criteria contained in IWC-1220. The staff review of the PSI program plan revealed that the Class 2 portions of the HPSI, CVCS and containment spray system (CSS) will receive no volumetric inspections. It is the staff's position that the preservice inspection program must include volumetric examination of a representative sample of welds in the RHR, ECCS and CHR systems. This is an open item in the safety evaluation.

Response

Millstone Unit No. 3 Preservice Inspection (PSI) examination requirements for austenetic class 2 piping systems, both volumetric and surface, were developed and based on requirements of ASME Section XI as modified by 10 CFR 50.55a paragraph (b)(2)(iv)A. The only Section XI Exemption the program is employing for the PSI program for the RHR, ECCS and CHR systems is for ≤ 4 " nominal pipe size (NPS). These systems contain ≈ 1200 circumferential welds of which 200 are $\geq \frac{1}{2}$ " T wall and will receive volumetric and surface examinations. The remaining 1000 welds are $< \frac{1}{2}$ " T wall and are scheduled to receive surface examinations only.

Based on the NRC concerns relative to a lack of volumetric examinations on piping $< \frac{1}{2}$ " T wall and no examinations scheduled on the 4" NPS HPSI system, Northeast Nuclear Energy Company (NNECO) proposes to add the following examinations to the PSI Program:

- 1.) Perform volumetric examination on 7.5% sample of the 1000 welds (> 4 " NPS) noted above that are presently receiving surface examinations only. This sample will be distributed among the above named safety systems. This does not include open-ended, dried and vented portions of QSS and RSS inside containment.
- 2.) Perform volumetric and surface examination on 7.5% sample of those portions of the primary HPSI system that are 4" NPS.
- 3.) Perform surface examination on 7.5% sample of those portions of the primary HPSI system that are 3" NPS.

To eliminate some of the difficulties normally encountered when performing ultrasonic examinations on thin walled material, we will develop a specific non-code examination procedure utilizing 70° longitudinal waves. Since longitudinal waves respond poorly to notches, side drilled holes will be used to establish detection sensitivity.

It is our belief that these additional examinations (currently not an ASME Section XI requirement nor a documented NRC requirement) will provide adequate assurance on the integrity of these safety systems.