



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

November 26, 1996

Mr. Joseph M. Stankoski
895 Mount Vernon Road
Southington, CT 06489

REFERENCE: YOUR LETTER TO THE NRC DATED JULY 24, 1996

Subject: CONCERNS YOU RAISED TO THE NRC REGARDING MILLSTONE AND HADDAM
NECK

Dear Mr. Stankoski:

This letter is in response to your letter dated July 24, 1996, which commented on our letter of July 9, 1996. Your letter provided additional clarifications regarding your concerns and made observations on information contained in our inspection reports provided to you. We apologize if you feel our initial response did not completely satisfy your concerns and we offer the following additional information.

Issue 1

The NRC letter dated July 9, 1996 stated that NRC Inspection Reports 50-423/85-22 and 50-423/83-14 addressed your concerns about the 2T hole in the penetrameter not being discernable for Millstone 3 primary piping welds. You noted however, that page 5 of NRC Inspection Report 50-423/83-14 stated that the radiographs submitted by Tubeco of the centrifugally cast pipe going from the Millstone 3 reactor vessel to the steam generators and back were not acceptable. You further stated that NRC Inspection Report 50-423/85-22 did not address your concerns about Millstone 3 radiographs.

Response

Your original concern indicated that there was a problem with radiographs representing the primary piping welds. The problem you identified was the inability to discern the 2T penetrameter hole image on the radiographs.

The NRC mobile nondestructive examination (NDE) laboratory was staffed with personnel qualified to the American Society for Nondestructive Testing (ASNT) requirements, which are used by the nuclear industry and mandated by the Code of Federal Regulations. The NDE team was headed by a certified ASNT Level III supervisor and 2 Level II technicians. They were highly experienced professionals and inspected nuclear power facilities all over the United States for the NRC. In Inspection Report 50-423/83-14, Section 4, the report discussed the inspection of Tubeco, Incorporated radiographs, the subject of your concern. The inspectors examined 130 radiographs for radiographic technique, which included the ability to see the required penetrameter hole image. The inspectors did not identify any

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difficulty in being able to see the required penetrameter hole image. However, the NRC issued a violation for improper placement of the penetrameter in the area of interest and for film that exceeded the density limits. The followup inspection, Inspection Report 50-423/85-22, page 8, Section 4, also noted poor film quality. In response to the earlier NDE laboratory findings, the licensee performed a 100% film review of Tubeco shop welds. The licensee performed between 600 -700 weld re-radiographs due to film quality problems. These corrective actions supported your observation that there were problems with Tubeco radiographs; however, our NDE laboratory identified similar problems at the same time that you were employed by NUSCO, and verified that proper actions were taken. This violation was closed in Inspection Report 50-423/85-69.

Issue # 2

The NRC letter dated July 9, 1996, stated that NRC Inspection Report 50-423/91-05 addressed your concerns about the UT examination of Millstone 3 reactor coolant piping welds. You stated that this report, reference page 4, discussed indications in the Millstone 3 pressurizer spray line and RHR line missed by liquid penetrant examinations. You also cited page 10 of NRC Inspection Report 50-423/85-22, which indicated that the UT examinations of Millstone 3 cast piping was not acceptable.

Response

Westinghouse-designed nuclear steam supply systems use centrifugally cast stainless steel (CCSS) for the primary loop piping for the reactor coolant system. CCSS was chosen because of its unique metallurgical properties in this environment. The ASME Code requires inservice inspection (ISI) of ASME Class 1 and 2 components; the preferred volumetric examination for ISI is ultrasonic (UT) examination. UT is preferred because the primary loops do not have to be emptied of water to perform the examination. However, CCSS introduces a different obstacle for UT because the grain size of CCSS is large. The large grains cause the ultrasonic sound to attenuate and/or divert from the intended angle of inspection.

The NRC has recognized the difficulty in performing UT on CCSS. For the past ten years the NRC has funded research on performing UT on CCSS and developing new inspection techniques. Many round robin testing sessions have been conducted on performing UT on CCSS. These round robin sessions have been sponsored by the Westinghouse Owners Group (WOG) and utilities as well as the NRC. The NRC also performed an independent evaluation of the manual UT techniques and equipment available to the industry. The results of the independent evaluation are due to be published. Considering the low failure rate of this material, the ASME Code Committee for Section XI is currently reviewing the need to ever perform UT on CCSS. The Code Committee is drafting a Code Case that would allow utilities to defer the inspection for long periods of time.

→ NEU should not be granted a relief request from this required inspection by the NRC.

Issue # 3

The NRC letter dated July 9, 1996, stated that storage of actual radiographs is not required by the ASME Code. You stated that Northeast Utilities radiographic procedure NU-RT-1 and their Quality Assurance Program require storage of radiographs in accordance with the ANSI standards and that the NRC approved these documents.

Response

The storage of the actual radiographs is not an ASME Code requirement. The NRC will review the current licensing basis for Millstone 3 for commitments on radiograph storage. This review will be part of a future NRC QA/ISI inspection.

Issue # 4

The NRC letter dated July 9, 1996, stated that there was never any intention that the baseline UT examination of the Millstone 2 reactor pressure vessel (RPV) be repeatable. You stated that Section XI of the ASME Code requires that all UT examinations and calibrations shall be repeatable, and that is why Section XI requires calibration blocks. You also stated that the new UT examination of the Millstone 2 RPV requires the entire core of the vessel to be removed.

Response

It is standard operating procedure to fully offload the core of a pressurized water reactor prior to performing RPV UT examinations.

UT of the RPV is required by the ASME Code, Section XI. The ISI UT is performed to identify service induced flaws. If flaws are identified, the flaws are tracked and trended from one inspection to the next. The initial inspection of the Millstone 2 RPV was to identify fabrication flaws prior to start up; not service induced flaws.

The calibration blocks used for the RPV UT are to calibrate the UT instruments. The calibration of the UT instruments is to set the examination parameters, or bounds, of the initial examination. During the examination, the calibration is checked to verify the examination parameters have not drifted out-of-bounds. The final calibration is a verification the parameters remained within bounds throughout the examination. Each UT examination requires a separate calibration of the UT instruments. The settings of the instruments may vary from instrument-to-instrument, but the examination sensitivity should be the same.

The results of the examinations are then compared from examination to examination to identify unknown flaws. The results are the report of flaws or unflawed areas. It is not necessary for the calibration of one instrument, used during one examination, be repeated during the subsequent examination with a different instrument. It is however a requirement that the results of the examinations be repeatable. This process is assured by using the same set of calibration blocks from one examination to another; a process that has been successfully implemented at Millstone.

This answer by the NRC makes no technical sense at all, J.M.S.

Mr. J. M. Stankoski

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Issue # 5

You stated that NRC Inspection Report 50-245/96-01 made no mention of the Millstone 1 UT standards used to inspect the Millstone 1 RPV welds. You feel that the NRC should be very concerned that most of the Millstone 1 reactor welds cannot be examined according to the ASME Code because they are not accessible.

Response

The UT of the Millstone 1 RPV was performed earlier this year. The licensee has submitted a request for relief from the ASME Code requirements on accessibility of the RPV welds. The calibration blocks used for the RPV UT met the requirements of the ASME Code. The calibration of the UT was in accordance with the ASME Code, Section XI, Appendix II. The nozzle welds were not performed during the NRC inspection of the Millstone 1 RPV inspection.

The NRC performed an inspection of the RPV UT examination. No concerns or violations were identified.

Regarding the issue of the UT standards used to inspect the Haddam Neck reactor vessel nozzle welds, safe ends, and primary coolant piping welds, we asked you in our July 9, 1996 letter to supply specific information to demonstrate that the standards did not comply with ASME Section XI within 30 days (mid-August 1996). In your letter dated July 24, 1996, you stated that you would provide this information at a later date. As of the date of this letter, we have not received any additional information to support your concern regarding Haddam Neck. Therefore, we plan no further action at this time.

Thank you for informing us of your concerns. We feel that our actions in this matter have been responsive to those concerns. Should you have any questions, or if I can be of further assistance in these matters, please call me via the NRC Safety Hotline at 1-800-695-7403.

Sincerely,

David J. Vito

David J. Vito
Senior Allegation Coordinator

Docket Nos. 50-245
50-336
50-423
50-213
File No. RI-96-A-0055

→ The NRC should not grant this relief request because NEU has not looked at Acoustic Emission Techniques

October 25, 1996

Dear Senator Lieberman:

I sent a letter to the NRC on July 24, 1996 concerning some very serious problems at the Millstone and CY nuclear power stations. A copy of my letter to the NRC is attached. To date I have not received an answer to my letter. My letter states that the NRC's answers to my February 13, 1996 letter to them were technically incompetent. I want the NRC to answer my July 24, 1996 letter to them. I have a Masters degree in Physics and I worked at Millstone and CY for 14 years as a Senior Engineer in the Nuclear Engineering and Operations Department. I was fired after I continued to write memos to Northeast Utilities management which revealed the many problems I found at the Nuclear Plants.

To date neither the NRC or Northeast Utilities has addressed the safety problems of employees who have to work on all the machinery at Millstone and CY. The employees should be given some assurance that they will not be fired if they talk to OSHA about the safety problems.

As our Senator I think you should call for a Congressional investigation of the NRC and Northeast Utilities. It's a shame that people like myself got fired and then black balled for trying to do our jobs correctly at the Nuclear Plants.

Joseph M. Stankoski

JOSEPH M. STANKOSKI

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SOUTHINGTON, CT. 06489

860-628-0270

July 24, 1996

Mr. David J. Vito
Nuclear Regulatory Commission
King of Prussia, Pennsylvania

Subject: My response to your letter to me dated July 9, 1996.
Your letter to me dated July 9, 1996 completely failed to address my concerns about the Nuclear Power Plants at Millstone and Haddam Neck as expressed in my letter to Mr. Norton of the NRC dated February 13, 1996.

Your letter stated that NRC reports 50-423/85-22 and 50-423/83-14 addressed my concerns about the 2T hole in the penetrator not being disassemblable for MP3 primary piping welds. Page 5 of report 50-423/83-14 states that the radiographs submitted by Tubco of the centrifugally cast pipe going from the MP3 reactor vessel to the steam generators and back were not acceptable. Report 50-423/85-22 does not address my concerns about MP3 radiographs.

Your letter also states that NRC report 50-423/91-05 addresses my concerns about the UT examination of MP3 reactor coolant piping welds. This report, reference page 4, discusses indications in the MP3 pressurizer spray line and RHR line missed by liquid penetrant examination.

NRC report 50-423/85-22 page 10 states that the U.T. examinations of MP3 cast piping is not acceptable.

Your letter stated that storage of actual radiographs is not required by the ASME Code. The Northeast Utilities radiographic procedure NU-RT-1 and Quality Assurance Program require storage of radiographs. The NRC opposed these documents.

The radiographs are to be stored in accordance with the ASME standards.

Your letter states that there was never any intention that the baseline U.T. examination of the MP2 reactor vessel be repeatable. The ASME Code Section II requires that all U.T. examinations and calibrations shall be repeatable. That's why section II requires calibration blocks. The new U.T. examination of the MP2 vessel you spoke about requires that the entire core of the vessel be removed.

NRC report 50-245/96-01 makes no mention of the MPI U.T. standards used to inspect the MPI reactor vessel nozzle welds. The NRC should be very concerned that most of the MPI reactor welds cannot be examined according to the ASME Code because they are not accessible.

The Northeast Quality Assurance program requires all ASME Class I Components to be purchased in accordance with their Quality Assurance Program which had to be approved by the NRC before MP3 could be licensed.

I will supply you with information about the nonconforming calibration blocks used by CY to inspect their reactor vessel welds at a later date. Also CY removes the entire core to inspect their reactor vessel welds.

Sincerely,

Joseph M. Stankovich

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