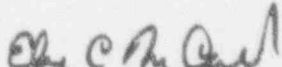


SEP 19 1989

Docket No. 50-336
File RI-88-A-0101

MEMORANDUM FOR: Michael Perkins, Office Allegations Coordinator
THRU: E. Wenzinger, Chief, Projects Branch No. 4, DRP
D. Haverkamp, Chief, Reactor Projects Section 4A, DRP
FROM: Ebe C. McCabe, Chief, Reactor Projects Section 3B, DRP
SUBJECT: CLOSEOUT OF ALLEGATION FILE RI-88-A-0101

The subject allegation was made by an individual whose additional allegations are tracked under allegation file RI-88-A-0029. Initial resident inspector inspection of allegation RI-88-A-0101 was documented in Inspection Report 50-336/88-24. Follow-up inspection of the allegation was accomplished by the Millstone Unit 2 Allegation Team Inspection and will be documented in Inspection Report 50-336/89-13. During the course of that team inspection, the allegations made under file RI-88-A-0101 were incorporated into file RI-88-A-0029 and will be tracked in the future under that file number. For this reason, allegation file RI-88-A-0101 is closed.


Ebe C. McCabe, Chief
Reactor Projects Section 3B

cc:
S. Barr, DRP
W. Raymond, Millstone

9203060430 910821
PDR FOIA
GUILD91-162 PDR

F/19

ALLEGATION RECEIPT REPORT

Name: NNECO Allegation No.: RI-88-A-0101
Location: Millstone 2 Docket No.: 50-336
Date Received: 10/7/88 Person Receiving: P.J. Habighorst

Synopsis of 2 Allegation(s): (Time frame of allegations: Current)

- 1) Change to procedure IC1104A, currently changed does not accurately reflect wear, sticking or crystallization of bourdon tube
- 2) Heise gauges calibrated to manufacturer's spec (nominal value), not reading on increasing direction

Alleger Information -

Employer: NNECO
Position: I&C Tech.

Confidentiality: No
Info Available: Name & Address

Type of Activity: Reactor

Functional Area: Operations

- Details of Allegation:

See attached memo from alleger.

ALLEGATION PANEL DECISIONS -

Panel Date: 10/20/88
Priority: Medium

Safety Significance: Unknown
Concurrence to Close: Branch Chief

PANEL RESULTS:

- 1) The AOC will send an acknowledgement letter to the alleger (ECD 10/28/88).
- 2) A routine inspection will be conducted (ECD 11/30/88) by the SRI.
- 3) The inspection will be documented the SRI's monthly report (ECD 12/31/88).
- 4) The AOC will send a closeout letter to the alleger (ECD 1/15/89).

PANFL ATTENDEES -

Signature (if applicable):

S. Collins Panel Chairman

S. Collins / 11/1/88
date

E. McCabe Action Office Contact

E. McCabe / 11/2/88
date

Alan Shropshire Office Allegation Coordinator

Alan Shropshire / 11/2/88
date

Distribution (in addition to the above panel members):

J. Allan L. Bettenhausen
J. Gutierrez
C. White, OI:RI
W. Johnston

F/20

5 '88 06:52 NRC MILLSTONE OFFICE P04

DATE: October 6, 1988
TO: Peter Nabighorst
U.S. Nuclear Regulatory Commission
FROM:
SUBJ: Calibration Lab Concerns

The pressure gauge calibration procedure, IC1104A, has been changed. The procedure now is not adequate to assure that pressure readings will be accurate in the decreasing direction. Checking a gauge at only one point in the decreasing direction will not show all changes in a gauge due to wear, sticking or crystallization of the bourdon tube. I have written instrument non-conformance reports on pressure gauges which were out of spec. in the decreasing direction only. I made many people aware of this fact including Eugene Palladino, John Keenan and yourself. Why was this change allowed to take place? Shouldn't we be assuring the accuracy of the QA test equipment beyond any reasonable doubt? Also, the specification used as acceptance criteria does not accurately reflect the manufacturers specification. The Heise gauges should be within the manufacturers spec. from the nominal input value; not from the reading taken in the increasing direction. The acceptance criteria used will allow gauges to pass which have an error of almost twice the manufacturers specification.

DEC 15 1988

Docket/License: 50-336/DPR-65

Northeast Nuclear Energy Company
ATTN: Mr. Edward J. Mroczka
Senior Vice President - Nuclear
Engineering and Operations Group
P.O. Box 270
Hartford, Connecticut 06101-0270

Gentlemen:

Subject: Millstone 2 Inspection 50-336/88-24 (10/13/88-11/23/88)

This refers to the resident inspection of Millstone Unit 2 from October 13 through November 23, 1988. The inspection results are described in the enclosed report and were discussed with Messrs. Scace and Keenan of your staff.

No violations were identified and no reply to this letter is required.

We wish to call your attention to a temporary loss of access to certain spaces (Report Detail 6.1). We will continue to evaluate your controls for assuring adequate access to controlled areas.

We also wish to call your attention to open items related to allegations about the Metrology Lab (Report Detail 9). Concerns include the ability to calibrate Simpson Multimeters by literal use of the procedure, Heise gage calibrations to less than the manufacturer's specified accuracy, and whether Heise gage hysteresis checks are sufficient and in accordance with the manufacturer's recommendations.

Your cooperation with us is appreciated.

Sincerely,

**ORIGINAL SIGNED BY
LEE H. BETTENHAUSEN**

Lee H. Bettenhausen, Chief
Projects Branch No. 1
Division of Reactor Projects

Enclosure: NRC Region I Inspection Report 50-336/88-24

OFFICIAL RECORD COPY

IR MILL2 88-24 - 0001.0.0
11/29/80

F/21

1001

~~8812930020~~ 298

DEC 15 1988

Northeast Nuclear Energy Company

2

cc w/encl:

W. D. Romberg, Vice President, Nuclear Operations

D. O. Nordquist, Director of Quality Services

S. E. Scace, Station Superintendent

Gerald Garfield, Esquire

Public Document Room (PDR)

Local Public Document Room (LPDR)

Nuclear Safety Information Center (NSIC)

NRC Senior Resident Inspector

State of Connecticut

bcc w/encl:

Region I Docket Room (with concurrences)

Management Assistant, DRMA (w/o enclosures)

DRP Section Chief

J. Szymoski, SRI, Haddam Neck

W. Raymond, SRI, Millstone 1, 2 & 3

G. Jaffe, LPM, NRR

V. Bores, DRSS

A. Anderson, DRS (Detail 7.0)

R. Gallo, DRS (Detail 3.7)

R. Keimig, DRSS (Detail 6.0)

M. Conner (SIMS Coordinator) (Detail 3.1)

F. Crescenzo, DRP

C. Woodard, DRS

N. Trehan, NRR

P. Eselgroth, DRS

E. Brach, NRR/RVIB (Detail 9.3)

RI:DRP

Habighorst/meo

12/7/88

12/15

RI:DRP

Raymond

12/15

RI:DRP

McCabe

12/15

RI:DRP

Bettenhausen

12/15/88

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IR MILL2 88-24 - 0002.0.0
11/29/80

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

Report No. 50-336/88-24

Docket No. 50-336

License No. DPR-65

Licensee: Northeast Nuclear Energy Company
P.O. Box 270
Hartford, CT 06101-0270

Facility Name: Millstone Nuclear Power Station, Unit 2

Inspection At: Waterford, Connecticut

Dates: October 13 to November 23, 1988

Reporting
Inspector: F. J. Habighorst, Resident Inspector

Inspectors: W. J. Raymond, Senior Resident Inspector, Millstone
F. J. Crescenzo, Senior Resident Inspector, Shoreham
P. J. Habighorst, Resident Inspector, Millstone 2
G. S. Barber, Resident Inspector, Millstone 3
C. H. Woodard, Reactor Engineer, DRS
D. H. Jaffe, Project Manager, NRR
N. Trehan, Specialist Inspector, NRR

Approved by: *E. C. McCabe, Jr.*
E. C. McCabe, Chief, Reactor Projects Section 1B

12/4/88
Date

Inspection Summary: 10/13/88-11/23/88 (Report 50-336/88-24)

Areas Inspected: Routine resident and specialist inspection of plant operations, surveillance, maintenance, previously identified items, a reactor trip, Plant Incident Reports (PIRs), security, allegations, periodic reports, a service water leak, and committee activities.

Results: No unsafe conditions were identified. No violations or deviations were identified. Further NRC follow-up is planned on Metrology Lab allegations, the service water leak, and access control to security areas. Good interdepartmental coordination was identified during relatively complex in-service testing involving boric acid reduction in storage tanks and pump suction lines.

698

[Handwritten signature]

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-- the corrosion expected based on a worst-case velocity profile would not decrease wall thickness below 0.030 inch before February 1989.

The licensee installed a temporary rubber patch to stop the leak. The inspector questioned the licensee on the weld repair procedures provided in ASME Section XI as required per 10 CFR 50.55(a)(g). The repair procedure in ASME Section XI is referenced in IW-4000, IWV-3380, IWV-3612 and IWA-5000. The licensee plans to replace the affected service water header in the February 1988 outage. The inspector will continue to review licensee actions on weld repair for the service water system. This is an unresolved item (INR 88-24-04).

9.0 Allegations (92702/92720/56700)

9.1 Separate Review of Allegation RI-88-A-0029

A separate technical review was conducted of allegation RI-88-A-29, which concerned activities in the Metrology Laboratory. The technical aspects of the allegation were found unsubstantiated during the NRC review documented in Inspection Report 50-336/88-07. Concerns related to job discrimination and reviewed by the Department of Labor (DOL) were not addressed in the NRC reviews. Within the scope of this review, the allegation was not substantiated; however, discrepancies unrelated to the allegation were noted by the inspector.

One allegation was that a revision to procedure I/C 1101C, "Simpson Multimeter Calibration," was improper because it reversed the error recorded on the calibration data report. Prior to the revision, the technician would record the reading of the meter being calibrated (TI) with the standard set at a nominal input value. The revision now requires the technician to record the standard's input value after fine adjustment of the standard to make the TI read the desired nominal value. This changes the recorded error from a "plus" to a "minus," or vice versa but does not change the error magnitude. Both the previous and the revised method result in satisfactory calibration of the meter. The only difference is the recorded data point sign. Therefore, the specific allegation was unsubstantiated.

In conjunction with this review, the inspector noted that the input value of the standard cannot be finely adjusted when calibrating resistance scales. This prohibits compliance with Step 7.3 of procedure I/C 1101C which requires the technician to vary the input value of the standard until the TI reads nominal value. Because of this, the technicians have resorted to a variation of the old method of data recording in order to make the data conform to the revised recording requirements. The licensee was informed of this discrepancy. This will be followed in a future inspection.

A second allegation was that certain technicians had not complied with the requirements of procedure I/C 1104A, "I&C Pressure Test Gauges Calibration" for data logging and procedure performance. The allegation was

founded on identical data recordings for increasing as well as decreasing pressure points during calibrations of Heise pressure gauges. The allegeder felt it was improbable that such recordings would be identical and concluded they were the result of improper procedure compliance or data logging. The allegeder based his conclusion on personal experience with calibration of such gauges and on his knowledge of hysteresis effects.

The inspector reviewed the calibration records for several Heise pressure gauges. It was noted that some technicians were more apt to record identical increasing/decreasing pressure values; however, all of the technicians had recorded identical values during one or more calibrations. Generally, it was not unlikely that a calibration would result in identical increasing/decreasing pressure values regardless of which technician performed the calibration. The inspector also observed the performance of a Heise gauge calibration and noted identical or close to identical increasing/decreasing pressure values. Based on these observations, the inspector could not conclude that recording of identical increasing/decreasing pressure values supported an allegation of procedural non-compliance or data logging errors. The allegation was therefore unsubstantiated.

In conjunction with this review, the inspector noted a discrepancy in the licensee's application of the acceptance criteria of procedure I/C 1104A. Paragraph 2 of I/C 1104A defines acceptance criteria for Heise gauges as $\pm 0.1\%$ of full scale or \pm one minor scale division, whichever is greater. Heise gauge No. QA-370 is a 0-5000 psig gauge with 5 psi minor scale divisions. The inspector noted that the acceptance criteria used for calibration of this gauge was ± 10 psi, which is inconsistent with the required acceptance criteria of 5 psi. The licensee was notified of this discrepancy. This will be followed as an unresolved item (UNR 88-24-05) pending further evaluation of the adequacy of the ± 10 psi criterion.

In summary, the technical aspects of the allegation were found to be unsubstantiated. Two discrepancies unrelated to the specific allegations were identified to the licensee.

9.2 Heise Pressure Gauge Calibration Inadequacies

On October 7, the inspector received a written memo concerning inadequate Heise pressure gauge calibrations from a licensee Instrument and Control technician. The memo alleged that, because of a recent revision, I/C procedure 1104A would not assure pressure readings on the test instrument will be accurate in the decreasing direction; and procedure I/C 1104A acceptance criteria does not accurately reflect the manufacturer's specification. The allegeder described discussions of the above concerns with licensee management.

On October 12, the resident inspector discussed the October 7 allegation with the allegor. The resident asked when the technical concerns were addressed to licensee management. The allegor recalled a meeting with the unit superintendent in June 1988 to discuss Metrology Lab concerns. The allegor explained that he informed the superintendent of two basic concerns: (i) inadequacy of I/C 1104A procedure revision, (ii) the discrepancy between manufacturer's recommended tolerances and I/C 1104A tolerances for Heise Pressure gauges.

The inspector reviewed the allegor's technical concerns on calibration of precision Heise pressure gauges. The first issue reviewed was the current revision of I/C 1104A. The Site Operations Review Committee (SORC) approved the current revision (No. 6) on July 20, 1988. The revision to I/C 1104A included step 7.4, a check for hysteresis, and omitted the decreasing pressure data points from the calibration check section (step 7.5). Hysteresis on a Heise pressure gauge is a result of expansion/relaxation/fatigue of the Bourdon tube. Hysteresis effects can be increased by crystallization of the Bourdon tube by excessive cycling, or by a partial fracture of the tube. The inspector reviewed the Dresser Industries "Heise Technical Manual," April 1985 Edition. Licensee procedure I/C 1104A is a verbatim description of section 4.3.4, "Check for Hysteresis," in this Heise Technical Manual. The inspector noted that I/C 1104A was improved by the revision, in that it directly correlated with the manufacturer's recommendation for detecting a hysteresis problem on a Heise pressure gauge. The licensee stated the upgrade to procedure I/C 1104A was a result of an employee allegation identified in routine Inspection Report 50-336/88-07. No inadequacies were noted in procedure adequacy.

In regard to the I/C 1104A change involving removal of decreasing data points during the calibration check, the inspector contacted the manufacturer (Dresser Industries). The manufacturer stated to the inspector that the technical manual identifies twenty specific calibration points to be conducted during a calibration check. The intent was to select ten equally spaced pressure points in escalation of pressure and ten on the relaxation of pressure. According to the manufacturer, if the Heise gauge is not subjected to twenty calibration points, a hysteresis condition in the gauge may not be detected initially, but the hysteresis would be detected later time based on usage. The licensee stated that based on discussions with the manufacturer, the selection of (5) calibration points in parallel with the hysteresis check would successfully detect frictional or hysteresis problems. The inspector will follow the licensee's technical evaluation of this item and specifically technical justification for only performing 25% of the recommended calibration checks for Heise gauges. This is an unresolved item (UNR 88-22-06).

The allegor's second concern was that procedure I/C 1104A acceptance criteria do not accurately reflect the manufacturer's specification. Documents reviewed were:

- "Quality Assurance Topical Report" Rev. 11.
- IEEE Std. 336-1971 "Installation, Inspection, and Testing Equipment for Instrumentation and Electrical Equipment."
- Dresser Industries "Heise Bourdon Tube Gauges, Models "CC", "CM", and "CMM," April, 1985.
- I/C 1104A, Revision 6, "I&C Pressure Test Gauge Calibration."
- I/C 2429, "Safety-related Instrument Calibration."

Licensee procedure (I/C 1104A) acceptance criteria for check calibration of Heise Pressure Gauges is 0.1% of full scale or \pm one minor scale division, whichever is larger. The manufacturer's allowance for Heise pressure gauges is 0.1% of full scale. The inspector reviewed eleven (11) data sheets associated with procedure I/C 1104A. The data sheets depicted various gauge scales between 0-15 psig and 0-750 psig. For all data sheets reviewed the acceptance criterion was one minor scale division instead of +0.1%. The largest allowance determined from review was +0.50 psi for a 0-250 psig gauge. The alleged concern was therefore substantiated. The inspector also compared the acceptance criteria for Heise gauge calibrations to safety-related instrumentation tolerances (I/C 2429) and concluded no instance existed where Heise tolerances were less than four times the tolerance of safety-related instruments. Quality Assurance Topical Report, Section 12.2.2 "Calibration Standards" states; "Calibration of equipment should be against standards that have an accuracy of at least four times the required accuracy of the equipment being calibrated. When this is not possible the standards shall have an accuracy that assures the equipment being calibrated will be within required tolerance and the basis of acceptance is documented and authorized by SORC or PORC for NUPOC-activities. In addition, the calibrating standards shall have greater accuracy than secondary standards being calibrated."

Based on the above, the alleged and substantiated condition has no safety significance. The acceptance criterion stated in licensee procedures is technically acceptable. The inspector had no further questions on this aspect.

9.3 RI-88-A-0040, Area Radiation Monitors and Foxboro Limiters

On October 5, the resident inspector received an allegation from a licensee employee. The alleged presented the following items:

- i) Operators silence audible alarms on malfunctioning area radiation monitors by disconnecting the horns.
- ii) Foxboro printed circuit boards are manufactured and installed with problems.
- iii) Worker overtime is not controlled at the station.
- iv) The allegation system not used by workers onsite.

ALLEGATION PANEL DECISIONS

SITE: Millstone 1

ALLEGATION NO.: RI-88-A-0121

DATE: 12/15/88 (Mtg. 1 2 3 4 5)

PRIORITY: High Medium Low

SAFETY SIGNIFICANCE: Yes No Unknown

CONCURRENCE TO CLOSEOUT: DD BC SC

CONFIDENTIALITY GRANTED: Yes No

PANEL ATTENDEES:

Chairman - S. Collins

Branch Chief - L. Bettenhausen

Section Chief - E. McCabe

S. Barr, Reactor Engineer

ACTION:

1) Send a letter to the allegor closing the allegation
(ECD 12/31/88).

2) _____

3) _____

4) _____

5) _____

6) _____

Alan Shopshire

Wasskine
0124

ALLEGATIONS AND COMPLAINTS - GENERAL

Attachment 3
RI 1210.1/0

ALLEGATION RECEIPT REPORT

Date/Time Received: 12/6/88 0840

Allegation No. RI-88-A-01214
(leave blank)

Name: Anonymous Address: _____

Phone: Will call back Tues. afternoon 12/13 City/State/Zip: _____

Confidentiality Requested: Yes ___ No ___ Implied ___

Allegor's Employer: _____ Position/Title: MOVATs Technician

Facility: Millstone 2 Docket No.: 50-336

(Allegation Summary (brief description of concern(s): 1 Allegor contends he was told to violate procedure step 5.3 of MOVATs testing procedure which required thrust range to be established prior to testing 2 Allegor contends that he was required to make 2 entries into

Number of Concerns: 2 various radiation areas

Employee Receiving Allegation: G.S. BARBER called.
(first two initials and last name)

Type of Regulated Activity (a) Reactor (d) ___ Safeguards
(b) ___ Vendor (e) ___ Other: _____
(c) ___ Materials (Specify)

Materials License No. (if applicable): NA

Functional Area(s): (a) Operations (e) Emergency Preparedness
(b) Construction (f) Onsite Health and Safety
(c) Safeguards (g) Offsite Health and Safety
(d) Transportation (h) Other: MOVATs testing

F/23

Detailed Description of Allegation:

Alleges called to complain that he was required to perform MOVATS testing on 12 values ~~values~~ in violation of procedure. Special Procedure 87-2-5, Testing Limit Torque MOVs using MOVATS, Sec 5.3 States that the required thrust value range must be obtained before testing. Alleges ~~that~~ ^{said} he told ^{his} supervisor that the ranges needed to be established prior to testing per the procedure. The supervisor said engineering had not yet established the ranges and told him to proceed with the test. He tested 12 values in the "as-found" condition and recorded the data. ~~When he was asked~~ I asked him if the "as-found" data was used to generate the scanned ranges. He didn't believe it was since some of the as-found were outside ranges. He believes that although his exposure was low (50 ml for the job, over 8-10 days) he will receive double the exposure because he has to do all of the MOVATS testing again. When I asked why he wouldn't give his name he stated "Because I don't want to be black balled". He feels the company will label him as a troublemaker.

ALLEGATION PANEL DECISIONS

SITE: Millstone 2

PANEL ATTENDEES:

ALLEGATION NO.: RI-88-A-0124

Chairman - S. Collins

DATE: 12/15/88 (Mtg. 1 2 3 4 5)

Branch Chief - L. Bettenhausen

PRIORITY: High Medium Low

Section Chief - E. McCabe

SAFETY SIGNIFICANCE: Yes No Unknown

S. Barr, Reactor Engineer

CONCURRENCE TO CLOSEOUT: DD BC SC N/A

CONFIDENTIALITY GRANTED: Yes No

ACTION:

1) The residents will examine this concern during a routine inspection.

2) The allegation panel will reconvene after the resident follow up. (ECD 1/15/89).

3) _____

4) _____

5) _____

6) _____

F/24