

U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Reports No. 50-454/84-88(DRS); 50-455/84-57(DRS)

Docket Nos. 50-454; 50-455

Licenses No. NPF-23; CPPR-131

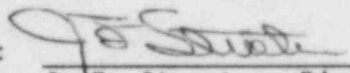
Licensee: Commonwealth Edison Company
Post Office Box 767
Chicago, Illinois 60690

Facility Name: Byron Station, Units 1 and 2

Inspection At: Byron Site, Byron, Illinois
Region III Office, Glen Ellyn, Illinois
National Board of Boiler and Pressure Vessel Inspectors Office,
Columbus, Ohio
Commonwealth Edison Company Corporate Office, Chicago, Illinois

Inspection Conducted: March 6, 1984, through February 4, 1985

Approved By:



J. F. Streeter, Director
Byron Project Division

2/4/85

Date

Inspection Summary

Inspection on March 6, 1984, through February 4, 1985 (Inspection Report Nos. 50-454/84-88(DRS); 50-455/84-57(DRS))

Areas Inspected: Special audit by the National Board of Boiler and Pressure Vessel inspectors of allegations raised by a Hartford Insurance Company Authorized Nuclear Inspector.

Results: No items of noncompliance were identified.

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I. INTRODUCTION

This report documents the receipt of and followup on allegations made by a Hartford Steam Boiler Inspection and Insurance Company Authorized Nuclear Inspector (ANI) at the Byron Station. Since the allegations concerned piping installed at Byron Station under the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Region III requested that the licensee retain the National Board of Boiler and Pressure Vessel Inspectors to investigate the concerns.

II. RECEIPT OF ALLEGATIONS

On March 6, 1984, an ANI employed by Hartford Steam Boiler Inspection and Insurance Company contacted the NRC Resident Inspectors at the Byron Station. He stated that eight ANIs were assigned by Hartford Insurance to Hunter Corporation, the Byron large bore ASME code piping contractor. The allegor stated that he had experienced frustration in trying to carry out his job responsibilities as prescribed by the ASME Code. The allegor expressed his belief that Hunter Corporation and Commonwealth Edison Company were applying "monetary" pressure to his line supervision to support production schedules. He indicated that in the interest of remaining under contract with Commonwealth Edison Company, Hartford succumbed to this pressure and line supervisors had compromised their own integrity by instituting written and unwritten policies and practices which resulted in inadequate ANI reviews and ANI acceptance of items for which ASME Code requirements were not met. The allegor indicated that the other first line ANIs assigned to Hunter Corporation shared his sentiments, but they feared they would lose their jobs if they came forward.

On March 13, 1984, Messrs. K. Ward and J. Muffett of the Region III Office and the Byron Resident Inspectors met with the allegor to discuss his concerns in more detail and the following specific issues were received:

1. ANI supervision has established unrealistic deadlines for ANI review and acceptance (signoff on M-5 data reports).
2. ANI supervision has threatened loss of jobs if ANIs do not accept items and without explanation of the basis for acceptance, other than "because I said so".
3. ANI supervision prescribes the scope and depth of ANI reviews to the exclusion of elements required for a determination of item acceptability.
4.
 - a. ANI supervision has provided blanket waivers of ANI reviews for certain code items.
 - b. ANI reviews for Class 2 and 3 piping have been blanketly waived.
 - c. Local policy of ANI supervision limits ANI review of Class A, B and C pipe hanger process sheets and drawings.

5. SIS [Shop Inspection Service] manual states that Hartford ANI personnel cannot raise concerns beyond the next higher management level under any circumstances. No encouragement or protection for "boat rockers".
6. ASME Section XI process sheets have been used to satisfy Section III requirements and included in data packages in support of N-5 data reports.
7. When required ANI signoffs are missing from process sheets, the item is assumed to have been inspected and acceptable based on "Field Inspection Requests" which may or may not have pertained to the item in question.
8. Verification of material heat numbers for particular installations have been waived based on information contained on Field Orders. Field Orders may not be adequately controlled or otherwise traceable to the installation in question.
9. Uncontrolled rubber stamps (stars) are used by ANI personnel (at the direction of ANI supervision) to indicate ANI review and acceptance of process sheets, NCRs, DRs, etc. The ANI reviewing documentation packages for final acceptance via the N-5 data reports is required by ANI supervision to accept documents based upon the presence of the "star".

III. ALLEGATION FOLLOWUP

Since the allegations indicated a possible impact on the adequacy of ASME related work at Byron Station, the Region III Staff requested that the licensee retain the National Board of Boiler and Pressure Vessel Inspectors to investigate the allegations. Subsequently, at the licensee's request the National Board conducted a special audit of ASME work at Byron Station which included an investigation of these concerns. The National Board's audit was discussed in Paragraph 2 of Region III Inspection Report Nos. 50-454/84-50; 50-455/84-34. The National Board's investigation of the allegations (Exhibit I) concluded "the allegations in most part were correct, however, it appears they were programmatic and additional audits by the audit team revealed supporting documentation that assured there was not apparent effect on the hardware. Furthermore, procedures were revised and corrective action has been proposed and is being implemented to assure Code compliance." The National Board reported the closure of its findings in Exhibit II. Region III has reviewed the National Board's findings and concurs with the National Board's conclusions.

On November 8, 1984, the Region III Staff and members of the National Board who supervised and conducted the investigation into the allegations met with the allegor and his attorney. The purpose of the meeting was to inform the allegor of the results of the National Board's investigation. At the conclusion of the interview the allegor indicated that he might have additional information to provide. It was agreed that the information would be provided to Region III, through the allegor's attorney, by November 16, 1984. Followup with the allegor and/or his attorney was made by the Region III Staff on November 16, 19, 20, 21, 27, December 3, 4, 5, and 26, 1984. This included the transmittal of a letter by certified mail. The allegor did not provide any additional information as a result of any of these contacts; therefore, this matter is considered closed.

IV. EXIT INTERVIEW

Mr. J. F. Streeter of the Region III office met with Mr. B. R. Shelton, CECO Projects Engineering Manager, on February 4, 1985, and discussed the scope and findings of this investigation. Mr. Streeter also discussed the likely informational content of the investigation report with regard to documents or processes reviewed during the investigation. Mr. Shelton did not identify any such documents/processes as proprietary.

Exhibits:

- I. National Board of Boiler and Pressure Vessel Inspectors
Letter to NRC, August 31, 1984
- II. National Board of Boiler and Pressure Vessel Inspectors
Letter to NRC, November 15, 1984

The National Board of Boiler and Pressure Vessel Inspectors

S. F. HARRISON, Executive Director

1055 CRUPPER AVENUE
COLUMBUS, OHIO 43229 U.S.A.
Phone 614-888-8320
Telex 246-625

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DATE: August 31, 1984

MEMO TO: John Streeter
USNRC
799 Roosevelt Road
Glen Elyn, IL 60137

FROM: S. F. Harrison, Executive Director
D. J. McDonald, Director of Inspections
Audit Team - C. W. Allison
M. F. Sullivan
R. P. Holt

SUBJECT: Allegations Listed in J. M. Hind's Memo to D. W. Hayes Dated
March 14, 1984 Concerning Intimidation of Authorized Nuclear
Inspectors (ANI's) and Improprieties on the Part of ANI Supervision-
Hartford Steam Boiler Inspection and Insurance Company

Initial Contact with Alleger

The National Board audit team, as requested, has investigated the subject allegations by auditing activities of the ASME Certificate Holders and their Authorized Inspection Agency's Authorized Nuclear Inspectors at the Byron Nuclear Station. In addition, Authorized Nuclear Inspectors and Supervisors (attached list) were interviewed to obtain background information relative to the allegations. We have restated each allegation (#1 through #11) followed by the audit team's response.

1. ANI supervision has established unrealistic deadlines for ANI review and acceptance (sign off of N-5 data reports).

Response - Commonwealth Edison Company and Hartford Steam Boiler Inspection and Insurance Company established a schedule for the completion of N-5 data reports. The estimated time was five days for a piping N-5 and three days for an N-5 support.

This schedule was developed based on discussions with the Shop Inspection Service Regional Manager, the Assistant Chief Inspector, the "Lead" Authorized Nuclear Inspector and the Authorized Nuclear Inspector Supervisor, Hunter Corporation and Commonwealth Edison Company personnel. The schedule was a planning tool and in many instances, was not met. In fact, in discussing this with the Authorized Nuclear Inspectors involved, they said they made such reviews as necessary.

EXHIBIT I

~~CHL 1983727pp.~~

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2. ANI supervision has threatened loss of job if ANI's do not accept items , and without explanation on the basis for acceptance, other than "because I said so".

Response - The audit team found no hard evidence of any overt or covert threats of job loss if Authorized Nuclear Inspectors did not accept items based on supervision desires.

There were apparently remarks made by some "interim inspectors" from other Hartford Steam Boiler regions who were reviewing records and certifying data reports in lieu of being laid off or released from their respective regions. The remarks were to the effect that, "what will happen if I don't sign these data reports? Will they lay me off?" And the answers were to the effect, "if we don't sign them, we will all be looking for a job".

The team did not find, however, any specific instance where the Authorized Nuclear Inspector was threatened with loss of job or removal if documents were not accepted.

3. ANI supervision prescribes the scope and depth of ANI reviews to the exclusion of elements required for a determination of item acceptability.

Response - The charge is not substantiated by documented evidence; all documents required to be reviewed by Authorized Nuclear Inspectors were reviewed.

- a. Process sheets (except as noted herein)
 - b. CMTR's
 - c. Weld procedures
 - d. Welder qualifications
 - e. NDE procedure and reports
 - f. NDE personnel qualifications
 - g. NCR's and CAR's
 - h. Data reports
4. ANI supervision has provided blanket waivers of ANI reviews for certain Code items.
 5. ANI reviews for Class 2 and piping have been blanketly waived.
 6. Local policy of ANI supervision limits ANI review of Class A, B and C pipe hanger process sheets and drawings.

Response (items 4-6) - Authorized Nuclear Inspectors did not review process sheets prior to issuance to the field. This review is required by the ASME Code Section III. The Authorized Nuclear Inspector responsible for this stated that he had to make a determination of "priorities". He decided to put his emphasis on "in-process" work rather than the review of paper.

Records indicate that in-process inspections were performed and documented on the "process sheets" for large bore piping, and also in the Authorized Nuclear Inspector diary for other in-process fabrication. The invalidation of review of "process sheets" took place during a period of May, 1980 through September, 1980 for Class 2 and 3 small bore piping; also from November, 1979 through May, 1984 for Class 2 and 3 pipehangers and supports only. No waiver was made of the review of Class 1 hangers or supports.

In addition, all drawings were reviewed.

7. SIS manual states that Hartford ANI personnel cannot raise concerns beyond the next higher management level under any circumstances. No encouragement or protection for "boat rockers".

Response - The Hartford Steam Boiler manual gives the indication of limiting Authorized Nuclear Inspector contact to immediate supervisor. The team could not determine if this was just to require the Authorized Nuclear Inspector to follow organizational "chain of command" or if it was an effort to stifle Authorized Nuclear Inspectors from going over the supervisors' heads. However, interviews with the Authorized Nuclear Inspectors and the Authorized Inspection Agency management indicated personnel could go to a higher authority in writing by the chain of command.

The manual did address Part 21 requirements and indicated that the Authorized Nuclear Inspector did fall under rules set forth in 10 CFR 50 55(a), Part 21, and gave the Authorized Nuclear Inspector and Supervisors specific reporting requirements, again through an established "chain of command".

8. Section XI process sheets have been used to satisfy Section III requirements and included in data packages in support of N-5 data reports.

Response - Section XI process sheets reviewed indicated they were not used to satisfy basic ASME Code Section III criteria.

9. When required ANI sign-offs are missing from process sheets, the item is assumed to have been inspected and acceptable based on "Field Inspection Requests" which may or may not have pertained to the item in question.

Response - The team reviewed various process sheets during the course of the audit. With the exception of those process sheets discussed in item 4, 5 and 6 of this report, and hold points invalidated by Hunter Corporation letter HC-QA-170 (see paragraph 3.5 and 6.2 of National Board report 7/16/84), there were no required Authorized Nuclear Inspector reviews which had not been properly signed-off.

10. Verification of material heat numbers for particular installations have waived based on information contained on Field Orders. Field Orders may not be adequately controlled or otherwise traceable to the installation in question.

Response - During the course of the audit, the National Board audit team verified heat number traceability to the Certified Material Test Reports. In any event, ASME Code Section III, subparagraph NX-4122, requires heat traceability up to point of installation and a tabulation of materials which identifies each piece of material to the CMTR.

Field Orders reviewed specified material to a specific item on an isometric drawing. This method is a means of identifying material to the Certified Material Test Report (CMTR).

The team did not find any instance of abuse of this method.

11. Uncontrolled rubber stamps (stars) are used by ANI personnel (at the direction of ANI supervision) to indicate ANI review and acceptance of process sheets, NCR's, DR's, etc. The ANI reviewing documentation packages for final acceptance via the N-5 data report is required by ANI supervision to accept documents based upon the presence of the "star".

Response - The team had severe concerns about the use of this system. The team's concern was that the red star or any other symbol used was a status indicator and such should have been controlled and identifiable to a specific individual.

However, in our review, it was found that in every case where an Authorized Nuclear Inspector signature is required by Code, the signature was present (excluding items 4, 5 and 6).

The team determined that the red star did not take the place of a required Authorized Nuclear Inspector's signature.

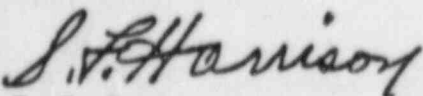
Hartford Steam Boiler has revised its procedures and no longer is using this method of indicating review.

Summary

As indicated above, the allegations in most instances were correct, however, it appears they were programmatic and additional audits by the audit team revealed supporting documentation that assured there was not apparent effect on the hardware.

Furthermore, procedures were revised and corrective action has been proposed and is being implemented to assure Code compliance. (See audit report dated August 17, 1984 to Commonwealth Edison Company with copy to USNRC).

Very truly yours,



S. F. Harrison
Executive Director

SFH:jl

cc: D. J. McDonald
C. W. Allison
M. F. Sullivan
R. P. Holt

Authorized Nuclear Inspectors (ANI)
and
Supervisors (ANIS)
Interviewed (Privately)

| | | |
|---------------------------------|--------------------------|--|
| NB #8227 - John Becker | - ANI | Hartford Steam Boiler Inspection & Insurance Company |
| NB #9912 - Bayot Dellota | - ANI | " |
| NB #8511 - Jeffrey Hendricks | - ANI | " |
| NB #7452 - Duane E. Oakley | - ANI | " |
| NB #8528 - Sargeant Podworney | - ANI | " (formerly) |
| NB #7742 - Robert T. Rainey | - (Asst. Regional Mgr.)* | " |
| NB #9150 - David M. Reynolds | - ANI | " |
| NB #7823 - Harold E. Richardson | - (Asst. Regional Mgr.)* | " |
| NB #6604 - Richard C. Shay | - ANI | " |
| NB #3248 - Donald P. Stewart | - Regional Manager | " |
| NB #7743 - David Tarkowski | - ANI | " |

Others Interviewed

| | | |
|----------------------------|--------------------------|---|
| NB #7520 - Robert E. Muise | - Supervising Engineer** | Kemper Insurance Group |
| NB #6427 - Steve Lindbeck | - Consultant*** | The National Board of Boiler and Pressure Vessel Inspectors |

* Formerly an ANI at Byron Station.

** Kemper Insurance was on the Byron Station site during early construction.

*** Formerly with State of Illinois, Division of Boiler Inspection as ANI.

The National Board of Boiler and Pressure Vessel Inspectors

S. F. HARRISON, Executive Director

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State of Wisconsin

J. T. CROSBY, Past Chairman
Little Rock, Arkansas

November 15, 1984

Cordell Reed, Vice President
Commonwealth Edison Company
PO Box 767
Chicago, Illinois 60690

SUBJECT: National Board Audit - Byron Nuclear Station Units 1 and 2;
Byron, Illinois

- REFERENCE:
- i) C. Reed letter dated April 25, 1984 to The National Board of Boiler and Pressure Vessel Inspectors (S. F. Harrison)
 - ii) The National Board of Boiler and Pressure Vessel Inspectors, D. J. McDonald letter - interim report dated July 16, 1984 to Commonwealth Edison Company (C. Reed)
 - iii) Commonwealth Edison Company (V. Schlosser) letter dated August 1, 1984 to The National Board of Boiler and Pressure Vessel Inspectors (D. J. McDonald)
 - iv) The National Board of Boiler and Pressure Vessel Inspectors, D. J. McDonald - interim report dated August 17, 1984 to Commonwealth Edison Company (C. Reed)
 - v) The National Board of Boiler and Pressure Vessel Inspectors, D. J. McDonald letter - interim report dated September 21, 1984 to Commonwealth Edison Company (C. Reed)
 - vi) Commonwealth Edison Company (V. Schlosser) letter dated October 10, 1984 to The National Board of Boiler and Pressure Vessel Inspectors (D. J. McDonald)

Dear Mr. Reed:

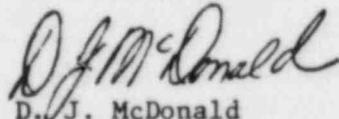
The National Board audit team returned to the Byron Nuclear Station on November 5 and 6, 1984. The purpose of this visit was to review with Commonwealth Edison Company and its subcontractors the implementation of corrective actions referenced in Commonwealth Edison's letter of October 10, 1984 (vi). As a result of this visit and verification of implementation of corrective actions, all findings and concerns which were identified by the National Board audit team in previous letters and reports (ref. ii, iv, v) are now considered closed.

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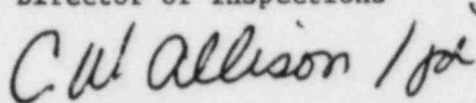
Cordell Reed, Vice President
November 15, 1984
page 2

The National Board audit team would like to take this opportunity to express our appreciation to Commonwealth Edison Company and its subcontractors who were the focal point of this audit for the excellent cooperation and professionalism they have shown.

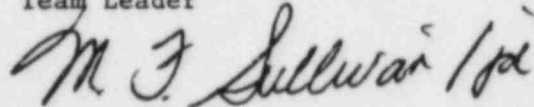
Very truly yours,



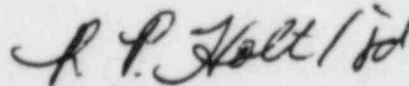
D. J. McDonald
Director of Inspections



C. W. Allison
Team Leader



M. F. Sullivan
Team Member



R. P. Holt
Team Member

MFS/jd

cc: S. F. Harrison, The National Board of Boiler and Pressure Vessel Inspectors.
J. F. Streeter, USNRC ✓
J. G. Keppler, USNRC
D. Gallup, State of Illinois