



AIR and WATER Pollution Patrol

March 5, 1984

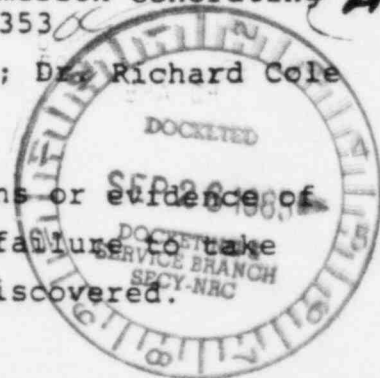
BROAD AXE, PA.

U.S. Nuclear Regulatory Commission

Atomic Safety and Licensing Board

In the Matter of PHILADELPHIA ELECTRIC COMPANY (Limerick Generating Station Units 1 and 2) Docket Nos- 50-352 and 50-353
Judge Lawrence Brenner, Chairman; Dr. Peter Morris; Dr. Richard Cole
Gentlemen:

Chronology of pertinent examples of infractions or evidence of improper control or performance of welding and/or failure to take proper action when welding infractions have been discovered.



9/76	IE Report 76-06-01
AWPP-138	Finding report #093- Contradiction on elevation of deficient beam (257' vs 253')
AWPP-139	NCR #1980
AWPP-139B	Samples of NCR's demonstrating routine "use as is".
3/77	AWPP-140 Applicant's lack of control of performance
3/77	AWPP-141 Lack of Applicant control.
3/77	A P-142/43 Applicant failure to control performance.
3/77	AWPP-144 (77.02-01) Applicant arbitrarily interprets rules and ignores interpretation of specifications.
3/77	AWPP-152 (50-352/77-02) Example of Applicant's failure to control performance of welding.
6/76	AWPP-155 (50-352/78-03; 78/04 letter from Bruce Grier) Example of failure to take proper and corrective action.
8/78	AWPP-156 (50-352/78-03) Notice of Violation 5/10/78-- Improper action followed by improper corrective action by Applicant.
8/78	AWPP-156 (50-352/78-04) Notice of Violation dated 6/16/78 & 157 Applicant failed to take proper and effective corrective action.
12/78	AWPP-176 (60-353/78-08) Failure of Applicant to control performance resulting in inability to in-



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(2)

Chronology continued:

spect welds.

12/78-1/79 AWPP-180 (50-353/78-08) Under response to item of non-compliance (response to Appenxis A) Applicant's answer ignores the seriousness of infraction. If welds can no longer be performed discussion of correction at final routine inspection is an apparent excuse to cover lack of control and lack of corrective action after improper welding has been discovered.

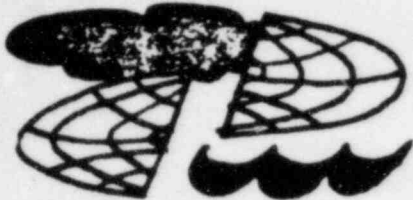
12/78-1/79 AWPP180b NCR 1366 demonstrates routine "use as is" follow up--as it might relate to AWPP 180.

4/79 AWPP-181 Letter to P.E. from Robt. Carlson re inspection 50-352/78-12 Letter shows total lack of control and failure to control performance and an effort to avoid proper corrective action after improper welding has been performed/

7/79 AWFP-186 See Infraction and Engrieering change.

7/79 AWPP-187 Infraction detailed that could result in damage from stress to subsequent cracking. This is careless contempt for safety proceedure. It is again a failure to control performance by Licensee. And if, as it seems, no further action was taken it shows Applicant did not take proper corrective action after deficiency is found.

7/79(ref) AWPP-189 (50-352/79-07-02) See underlined statements. Under (1) it appears Applicant arbitrarily makes deccisions on rules without specific description. Under (2) There is an indication of incomplete control by Licensee. Under (3) An indication is shown VIA acceptance of weld joint by Q.C. engineer on 4/9/79 that only certain welding activity is checked. There could be many such undiscovered deficient welds

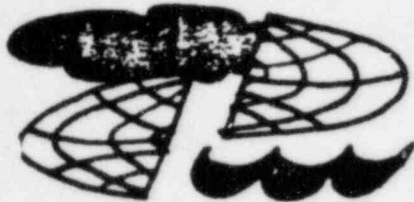


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(3)

Chronology continued:

- to cause subsequent problems.
- 7/79 AWPP-190 (ref 50-352/79-07-05) Under (4) there is more evidence of lack of control of performance with welding on the critical liner of the reactor core.
- 10/79 AWPP-194 Discussion weld performance 10/79. Again improper Applicant control of welding performance. Further, Applicant's Q.A. engineers issued p285 finding report on the day the NRC inspector found work not in conformance with required procedure. The Applicant appears to try to cover up its non-control of performance by a late copy-cat finding report AFTER the Applicant was notified of incorrect procedure occurring because of Licensee's lack of control of performance.
- 10/79 AWPP 204 Referring to unresolved item (352/79-11-02) licensee's memo dated 1/23/80 demonstrates improper follow up by Applicant after a deficiency is discovered.
- 6/80 AWPP-210 Further deficiency relative to Applicant's primary responsibility to control all activities.
- 6(?) /80 AWPP-235 Under(3) it is shown there is improper inspection procedure by Applicant found by NRC inspector similar to 76-06-01.
- app 8-9(?) /80 AWPP 236 See underlining, indicates Applicant's failure to control performance and Q.C.. Licensee is arbitrarily ignoring required "hold point".
- 11/80 AWPP-237 re above under response to item of non-compliance-B Applicant's inadequate control VIA Q.C. and Q.A. is shown.
- 1/81 AWPP-242 See underlining --improper follow-up on infraction and improper action after deficiency is found.

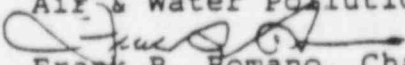


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(4)

Chronology continued:

- 2/81 AWPP-243 See underlining on welding deficiency.
- 2/81 AWPP-244 Under 352/81-01-02 -Violation of specified procedure as underlined.
(re above ref)
- ?/81 AWPP-246 re 50-352/81-05; 06 see underlined--referring to welding inadequacies discovered but not properly corrected. Further, improper welding accepted by Licensee on 2/6/80.
- 5/20/81 *AWPP-246A* *4 m.p.h. of PECO shuttles on QA, QC criticized by NRC*
?/81 AWPP-260 re: notice of violation inspection of 1/11-29/82 under A and B several violation of welding procedure by Applicant.
- 11/83 AWPP260A Notice of Violation re inspection of 10/17 and 11/30/83. Under (1) evidence of continued lack of control of performance responsibility of Applicant. Under (2) Again evidence of careless performance and failure to properly identify infractions.
- ?/81 AWPP-247 Same reference as AWPP 246 see underlining under Violation B.
- 11/83 AWPP 260B Under 3 of above reference demonstrated Applicant's non-conformance as it relates to reporting.
- 1/84 AWPP 260C Relating to 12/83 meeting of P.E. and Bechtel Power with resident inspectors concerning evident weakness in Q.A. and Q.C. programs involving completed construction. This item shows PECO's Q.C. and Q.A. programs, almost 8 years after the infamous "broomstick affair" is deficient to the point of threatening accidents during operation.

Respectfully submitted
Air & Water Pollution Patrol

Frank R. Romano, Chairman
61 Forest Ave.
Ambler, Pa. 19002

FRR/jch

REV'D. 5/75



FINDING REPORT

5. TYPE: ☐ AUDIT ☐ SURVEILLANCE ☒ NRC
☐ NCR ☐ CORRECTIVE ACTION REQ'D.
☒ Item of Noncompliance

6. ISSUED TO C.K. Soppet - Project Manager

7. ORGANIZATION Bechtel Power Corporation

8. THOSE CONTACTED T. Alton - K. Bishop

9. 10 CFR 50, APPENDIX B CRITERIA IX

1. NUMBER N-093

2. Limerick Units 1 & 2

3. PROJECT
Bechtel Power Corp.

PRIME CONTRACTOR

4. REFERENCES

a) AWS D1.1-72 and 72 & 74 editions

DEC 10 1975

P. A. MOLEFORD

10. FINDING (USE AND REFERENCE ADDITIONAL SHEETS AS REQUIRED)

Two welds from the beam to the clip on beams 232B7 and 232B9 in unit 2 on Elev. 257 were both incomplete and unacceptable and were made with the aid of a broom stick handle attached to the stinger to reach the joint to be welded; which is contrary to AWS section 3.1.2.

Further, inspection surveillance records indicated that these beam connections were inspected.

11. DISCUSSION (USE AND REFERENCE ADDITIONAL SHEETS AS REQUIRED)

Bechtel issued NCR No. 1980 identifying the non-conforming condition.
NCR no. 1980 describes condition at elevation 253' whereas this finding report N093 refers to elevation 257. (F.R.) App.

12. RECOMMENDATION (USE AND REFERENCE ADDITIONAL SHEETS AS REQUIRED)

IDENTIFIED	<u>A. Both</u>	Inspector	<u>10/27/76</u>	PE QA REFERENCE ONLY	<u>N</u>	<u>033</u>	SCR NO.	<u>206</u>
	NAME	TITLE	DATE		AL	NO		VR NO
IDENTIFIED				CMPTN CODE				
	NAME	TITLE	DATE	DISTRIBUTION				
ISSUED BY	<u>J. M. Curran</u>	Site QA	<u>10/29/76</u>	A. Teller - TLC				
	NAME	TITLE	DATE	P.L. Sauk				
				PLB-6254				

AWPP 138



QUALITY ASSURANCE

FINDING REPORT

13. NUMBER N-093
RECEIVED Limerick Units 1 & 2
DEC 10 1976 (14) PROJECT

15. CORRECTIVE ACTION TAKEN TO RESOLVE FINDING

(USE AND REFERENCE
ADDITIONAL SHEETS IF REQUIRED)

1. Issuance of NCR 1980 to acknowledge the nonconforming condition and to acquire dispositioning to correct same.
2. A Reinspection of all other work performed by the particular inspector who accepted the welds in question was accomplished wherever accessible.

(a) However, as per Buyer Affidavits dated Sept. 16 and Sept 29, 1983, re-inspection referred to above involved app 350 welds whereas the latest of a series of audits is now up over 1200 welds involving that inspector. F.R. (Ampt) 1. Disposition on JUL 1980 - 11/17/76. 2. Various QC-GI Reports C-68.7. 3. Various training records. Similarly made?

(b) How about other location where welds made? ACTION TAKEN BY K. B. Lile 11-22-76 ACTION VERIFIED BY James N. Morris 11/30/76

16. CORRECTIVE ACTION TAKEN TO PREVENT RECURRENCE

(USE AND REFERENCE
ADDITIONAL SHEETS AS REQUIRED)

A training class was held 10-25-76 for re-indoctrination and re-orientation in the various aspects of acceptance of completed work, reviewing or inspection criteria and ultimate responsibilities for weld inspections with all personnel in attendance from both the QC and field welding groups.

PCM DIRECTIVE - PCM 239 PROHIBITS USE OF BROOMSTICK EXTENSIONS

ACTION TAKEN BY K. B. Lile 11-27-76 ACTION VERIFIED BY James N. Morris 11/30/76

17. P.E. ACCEPTANCE OF CORRECTIVE ACTION

- ☐ RESOLVES FINDING
- ☒ UNACCEPTABLE (SEE SHEET 3 OF 3)
- ☐ USE "AS IS"
- ☐ TEMPORARY USE UNTIL RESOLUTION

Robert H. Jones Se Metallurgist 12-28-76
(App) TITLE DATE

Ampt 138 A 047-4 REV. 3 047-4 REV. 3



QUALITY ASSURANCE

FINDING REPORT

18. NUMBER N-093
Limerick Units 1&2
 RECEIVED
 APR 28 1977
 MULFORD

20. REASON UNACCEPTABLE (USE AND REFERENCE ADDITIONAL SHEETS AS REQUIRED)

1. The NRC finding, that generated this NCR, was replied to and bears reference to further commitments by Bechtel Power Corp.
2. This NCR should reflect those further commitments referenced in the above.

Identify the document and contents which indicate all welds that require the use of weld extensions shall be identified and approved by the Lead Weld Engineer. CH

ISSUED BY R.H. Zane / D.L. Moss Sr. Metallurgist 12/5/76
 NAME TITLE DATE

21. REVISED CORRECTIVE ACTION (USE AND REFERENCE ADDITIONAL SHEETS AS REQUIRED)

PCM-246 dated 12-17-76 states that any weld that requires the use of weld extension holders will be identified and approved by the Lead Staff Field Welding Engineer prior to use.
 This requirement is being incorporated in the latest revision of Job Rule G-16 "Welding".

Corrective action should (a) require re-inspection of other welds made with non-qualifying extensions, and (b) should ensure other Applicant makes qualifying extensions available to qualified welders for use of the welding by extension technique. F.R.

ACTION TAKEN BY J.R. Reiney, Jr. 4/11/77 ACTION VERIFIED BY William Morris 4/11/77
 NAME DATE NAME DATE

22. P.E. ACCEPTANCE OF REVISED CORRECTIVE ACTION

- ☒ RESOLVES FINDING
- ☐ UNACCEPTABLE (SEE ATTACHED SHEET 3 - OF 3)
- ☐ USE "AS IS"
- ☐ TEMPORARY USE UNTIL RESOLUTION

Robert G. Young Sr. Metall. Eng. 5-5-77
 NAME TITLE DATE

NONCONFORMANCE REPORT

1. PROJECT NO. 8031		2. REPORTED BY Chadwick		3. DATE 10-22-76		4. PAGE 1 OF 23		5. NCR NO. 1980	
6. ITEM DESCRIPTION BEAM ANGLES		7. ITEM LOCATION See below		8. DATE 10-22-76		9. RESERVES		10. DISPOSITION CONCURRENCE	
11. BEAM NUMBER 23287 + 23289		12. STARTUP SYSTEM NO. A/A		13. VALIDATED BY 11-13-76		14. REPLACEMENT PART NO.		15. DATE 11-24-76	
16. PURCHASE ORDER NO. N/A		17. ASME CODE W-1-8		18. REPLACEMENT SERIAL NO.		19. PROJECT ENGINEER W. H. Brown		20. DATE 12-2-76	
21. CONTRACTOR/LOCATION N/A		22. ROUTE TO FIELD ENGINEERING <input checked="" type="checkbox"/> ROUTE TO MATERIAL SUPERVISOR		23. SOURCE CONSTRUCTION		24. AUTHORIZED INSPECTOR Continued on p. 4		25. DATE	
<p>26. ROUTING INSTRUCTIONS:</p> <p>27. FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING ABOUT 16"</p> <p>28. FIELD DISPOSITION <input type="checkbox"/> FIELD DISPOSITION RESULTS:</p> <p>29. ENGINEERING DISPOSITION Completed as per Block</p> <p>30. ENGINEERING DISPOSITION RESULTS: Completed as per Block</p> <p>31. FIELD DISPOSITION RESULTS: Completed as per Block</p> <p>32. ENGINEERING DISPOSITION RESULTS: Completed as per Block</p> <p>33. ENGINEERING DISPOSITION RESULTS: Completed as per Block</p> <p>34. ENGINEERING DISPOSITION RESULTS: Completed as per Block</p> <p>35. ENGINEERING DISPOSITION RESULTS: Completed as per Block</p> <p>36. ENGINEERING DISPOSITION RESULTS: Completed as per Block</p> <p>37. ENGINEERING DISPOSITION RESULTS: Completed as per Block</p> <p>38. ENGINEERING DISPOSITION RESULTS: Completed as per Block</p> <p>39. ENGINEERING DISPOSITION RESULTS: Completed as per Block</p> <p>40. ENGINEERING DISPOSITION RESULTS: Completed as per Block</p> <p>41. 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NONCONFORMING CONDITION: **THE SOUTH SIDE OF BEAM # 23289 (6'-9" NORTH OF F BETWEEN 23 & 24.5 LINES) AND THE NORTH SIDE OF BEAM # 23287 (APPROXIMATELY 6'-5" SOUTH OF H LINE BETWEEN 23 & 24.5 LINES) WERE WELDED TO THE BEAM AND TO THE GEMBER AND A FINAL INSPECTION WAS ACCOMPLISHED. UPON FURTHER INVESTIGATION OF THESE WELDS THAT WERE MADE IT WAS DISCLOSED THAT THESE WELDS WERE INCOMPLETE.**

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REPAIR: **Rationale: proposed repair procedure will not impair structural capacity of steel**

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79. DATE **11-17-76**

80. DATE **11-17-76**

81. DATE **11-17-76**

82. DATE **11-17-76**

83. DATE **11-17-76**

84. DATE **11-17-76**

85. DATE **11-17-76**

86. DATE **11-17-76**

87. DATE **11-17-76**

88. DATE **11-17-76**

89. DATE **11-17-76**

90. DATE **11-17-76**

91. DATE **11-17-76**

92. DATE **11-17-76**

93. DATE **11-17-76**

94. DATE **11-17-76**

95. DATE **11-17-76**

96. DATE **11-17-76**

97. DATE **11-17-76**

98. DATE **11-17-76**

99. DATE **11-17-76**

100. DATE **11-17-76**

78-03-0012

APPENDIX A

NOTICE OF VIOLATION

Based on the results of an NRC inspection conducted on March 8-11, 1977, it appears that certain of your activities were not conducted in full compliance with conditions of your Facility License CPPR-106 as indicated below. Items A and B are categorized as Infractions and Item C is categorized as a Deficiency.

N-099
DM

- A. Criterion V of Appendix B of 10 CFR 50 states, in part, that: "Activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures, or drawings." The Limerick PSAR Appendix D.1 and D.4, including Answer to Question #17, describes the application of this criterion and others to site subcontractors and vendors. Bechtel drawing C-236, Rev. 6, establishes 3/16-inch as fillet weld size for welding carbon steel stiffeners to stainless steel liner plate of the spent fuel pool structure. Subcontractor procedure CVT-01, Rev. 0, establishes visual inspection requirements for such welding. "Fillet welds shall be of the specified size with full throat and legs of uniform size."

Contrary to the above, on March 11, 1977, fillet welds at several locations on the liner plate were less than the specified 3/16-inch size and had less than full throat. The welding and subsequent quality inspection had not been accomplished in accordance with applicable drawings and procedures. The measures established to control special processes, and the program for inspection of liner/stiffener welding, which were established to comply with Criteria IX and X of Appendix B of 10 CFR 50, were not effectively implemented.

Applicant's
lack of
control of
performance

- B. Criterion XIII of Appendix E of 10 CFR 50 states, in part, that: "Measures shall be established to control the handling . . . and preservation of material and equipment in accordance with work and inspection instructions to prevent damage or deterioration." The Limerick PSAR, paragraph D.4.9, states, in part, that: "Vendors

TRPP 140

shall have written instruction to govern the handling . . . and preservation of the items under contract so as to prevent degradation of quality . . ." The Bechtel Technical Specification 8031-C-45 for the Spent Fuel Pool Liner requires, in paragraphs 7, 9, 14 and 16, that: "The application of heat to . . . austenitic stainless steel is not permitted . . . (and) Iron contamination of stainless steel shall be prevented . . . Handling . . . procedures shall include measures to protect liners surfaces . . . from damage."

Contrary to the above, on March 8, 1977, the following conditions existed during field erection of the Spent Fuel Pool Liner: (1) Stainless steel exterior surfaces had been contaminated with the slag/ iron residue from a thermal metal cutting process. Several areas exhibited large accumulations of fired slag/iron deposits which indicate that the base metal was subjected to uncontrolled elevated temperatures and iron contamination. This condition had not been prevented by control measures. (2) Stainless steel interior surfaces had been contaminated by an unidentified residue which had apparently been deposited in the presence of high heat which had burned a sheeting material in contact with the steel at several locations and of several square feet area. This condition had not been prevented by control measures.

Criterion V of Appendix B of 10 CFR 50 requires, in part, that: "Activities affecting quality shall be . . . accomplished in accordance with these . . . procedures."

The Limerick PSAR, Appendix D, paragraph D.1 states, in part, that: "(Philadelphia Electric) is responsible for coordinating the (Quality Assurance) program to assure that all necessary control requirements and procedures are followed . . ." Bechtel Job Rule G-5 for Design Document Control, paragraph 4.2.3.4, directs that "Upon receipt from Project Engineering of an acceptable Quality Assurance Manual (and changes thereto) it is forwarded to Document Control for logging . . ."

Contrary to the above, on March 3, 1977, the latest approved amendments (Nos. 3 and 4) to Testing and Inspection Procedure 3.20.A.1 were not entered in two controlled volumes of the Peabody Testing Quality Assurance Plan at separate on-site locations.

N-100
Dm
Lack of
Application
Dm
Control.

N-098
QA

Am: P 141

a. Infractions7-02-01: Failure to Assure that Specification Requirements are Accomplished Relative to Minimum Size of Fillet Welds on Carbon Steel Stiffener Attachments to the Stainless Steel Liner Plate of the Spent Fuel Pool

The inspector viewed the spent fuel pool liner structure being erected on a concrete pad south of the reactor building. On each of four sides of the liner structure, segments of the fillet welds on various vertical stiffeners appeared marginal when viewed from a distance. The inspector obtained a fillet weld gage from the licensee quality assurance representative and measured the weld size at several locations (e.g. #45 A15) which appeared suspect. At least one location on each side of the liner assembly did not meet the 3/16-inch criteria shown on the design drawing C-236. This is contrary to the visual inspection criteria of part 5.6 of PDM procedure CVT-01 which requires "Fillet welds shall be of the specified size with full throat and legs of uniform size."

The existence of the above condition required that the responsible welder did not adhere to the specified weld size requirement in performing the work, and the quality inspector did not adhere to specified inspection requirements. This is contrary to criteria V, relative to implementation of criteria IX and X of Appendix B of 10 CFR 50, which require accomplishment and inspection of welding to assure adherence to specifications and procedures.

The inspector examined the following documents relative to the above:

Bechtel Drawing #C-236, Rev. 0
PDM Welding Specification WS-17
PDM Procedure CVT-01, Rev. 0

77-02-02: Failure to Prevent Damage and Deterioration of the Spent Fuel Pool Liner

The inspector observed that the stainless steel exterior surfaces of the spent fuel pool liner assembly had been exposed to the molten slag/iron material resulting from a carbon steel thermal cutting process. This was evidenced by the spray patterns of

N-099

DM

applicant
failure to
control
performance

N-097

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142

Therefore, the SFPL material was not handled in accordance with work instructions as directed by 10 CFR 50, Appendix B, Criterion XIII, which states, in part, that: "Measures shall be established to control the handling . . . and preservation of material . . . in accordance with work . . . instructions to prevent damage or deterioration."

The licensee stated that the statement in the Bechtel Specification 8031-C-45, paragraph 14 pertaining to the prevention of iron contamination of stainless steel is only applicable to the final cleaning aspects and does not apply to the fabrication/installation activities.

The inspector stated that such a narrow view of that specification requirement did not recognize the other similar provisions in the specification and implementing procedures, and was not consistent with the obvious intent of the specification, the related PSAR commitments, and the governing criteria of 10 CFR 50, Appendix B.

b. Deficiencies

77-02-03: Failure to Distribute the Peabody Testing Quality Assurance Plan (QAP) in Accordance with Job Instructions

During a review of the licensee site QA - office copy (39-02-5) of the Peabody Testing QAP, the inspector noted certain inconsistencies in the amendment numbering sequence to one of the procedures. Further investigation of the Bechtel's Master Copy (39-02-1) revealed different amendments than those in copy 39-02-5. The Bechtel Field Drawing Control Register indicated that amendment No. 2 was the latest approved amendment. The inspector examined the subcontract Field Engineer's and the on site Peabody Testing Quality Control Group's copies of the QAP (copies 39-02-4 and 39-02-8, respectively) and verified that amendment No. 4 was the latest approved edition. Those manuals controlled by Bechtel had not received the latest amendments (Nos. 3 and 4) due to a failure to fully implement distribution instructions.

Bechtel Job Rule G-5 for Design Document Control, paragraph 4.2.3.4, directs that "upon receipt from Project Engineering of an acceptable Quality Assurance Manual (and changes thereto) it is forwarded to Document Control for logging and control number assignment." In this instance, Engineering/Procurement had received the amendments but had not forwarded them to Document Control for logging in a timely manner. A Bechtel

applicant
arbitrarily
interprets
rules
but

N-098
QA

200P 144

50-352
77-02

ATTACHMENT I

Response to Appendix A - Notice of Violation

N-099

Infraction:

4. Criterion V of Appendix B of 10 CFR 50 states, in part, that: "Activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures, or drawings." The Limerick PSAR Appendix D.1 and D.4, including Answer to Question #17, describes the application of this criterion and others to site subcontractors and vendors. Bechtel drawing C-236, Rev. 6, establishes 3/16-inch as fillet weld size for welding carbon steel stiffeners to stainless steel liner plate of the spent fuel pool structure. Subcontractor procedure CVT-01, Rev. 0, establishes visual inspection requirements for such welding. "Fillet welds shall be of the specified size with full throat and legs of uniform size."

Example of
Applicant's
failure to
control
performance
of welding

Contrary to the above, on March 11, 1977, fillet welds at several locations on the liner plate were less than the specified 3/16-inch size and had less than full throat. The welding and subsequent quality inspection had not been accomplished in accordance with applicable drawings and procedures. The measures established to control special processes, and the program for inspection of liner/stiffener welding, which were established to comply with Criteria II and V of Appendix B of 10 CFR 50, were not effectively implemented.

Response:

A non-conformance report issued to provide corrective action for the condition identified above has resulted in the following:

1. Corrective Steps.

All completed welds have been reinspected at the site to assure that their size is in accordance with drawing requirements. Any undersized welds have been repaired and reinspected.

2. Action to prevent recurrence.

The vendor Plant and Field Superintendents have been reinstructed to assure that welds meet drawing requirements. The Plant and Site Q.A. Departments have been reinstructed in the drawing requirements and will verify compliance with the requirements during the visual inspection of the welds.

App 15:
I-1/2



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
631 PARK AVENUE
KING OF PRUSSIA, PENNSYLVANIA 19406

V. S. BOYER

RECEIVED AUG 28 1978

AUG 29 1978

AUG 24 1978

R. A. MULFORD

Docket No. 50-352

Philadelphia Electric Company
Attention: Mr. V. S. Boyer
Vice President
Engineering and Research
2301 Market Street
Philadelphia, Pennsylvania 19101

FILE: QUAL 1-2-2 (352/78-03)
FILE: QUAL 1-2-2 (352/78-04)

Gentlemen:

Subject: Inspections 50-352/78-03 and 50-352/78-04

This refers to your letter dated June 12 in response to our letter dated May 10, and your letter dated July 20 in response to our letter dated June 16, 1978.

Improper
This is an example of failure to take proper effective corrective action.

The information presented in your letters in response to the Notices of Violation issued by this office does not fully meet the requirements of Section 2.201 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations. Pursuant to these requirements, you are requested to submit to this office within ten (10) days of your receipt of this notice a written explanation or statement in reply to the aforementioned Notices of Violation which includes: (1) corrective steps which have been taken by you and the results achieved; (2) corrective steps which will be taken to avoid further items of noncompliance; and (3) the date when full compliance will be achieved.

The enclosure to this letter is provided to assist you in your understanding of our areas of concern. Should you have any questions concerning these items, we will be pleased to discuss them with you.

Sincerely,

Boyce H. Grier
Boyce H. Grier
Director

Enclosure: Areas of Concern

AMP 155

ENCLOSURE

AREAS OF CONCERN

A. Notice of Violation dated May 10, 1978

50-352/78-03

This item of noncompliance concerned one instance of failure to fully implement the requirements of Liquid Penetrant Test Procedure IPPT-340-39-02, Revision 0. Namely, liquid penetrant test indications in excess of the acceptance standards were observed by subcontractor test personnel when pipe weld No. HBC-183-1-FW-8 was tested and accepted on April 2, 1978; however, it was not verified whether or not actual defects were present.

Our bases for the above finding included the following: (1) on April 6 an NRC inspector observed that the developing powder had not been removed from the weld after it was tested on April 2 and the powder revealed test indications which were in excess of the acceptance standards, (2) on April 7 the weld was retested by a qualified examiner from the licensee's constructor in the presence of an NRC inspector and both observed indications in excess of the acceptance standards, and (3) records or other evidence were not available indicating it had been verified that the indications did not represent actual defects prior to acceptance of the weld on April 2.

PECO's response to this apparent item of noncompliance was limited to actions which attested to the quality of the particular weld. Further corrective actions are required to assure that: (1) subcontractor test personnel are properly implementing the testing procedure with respect to the processing of indications which exceed acceptance standards, and (2) other previous liquid penetrant test indications which exceeded acceptance standards were not accepted without taking suitable actions to verify whether the indications represented actual defects.

B. Notice of Violation dated June 16, 1978

50-352/78-04

This item of noncompliance concerned one instance of failure to control deviations from quality standards for Class 1 seismic structures. Namely, Bechtel Drawing No. C-875, Revision 6, was approved and issued to implement modifications to radial beams inside the containment structure even though this drawing contained instructions which were contrary to requirements of the AWS D1.1 Structural Welding Code, an applicable quality standard.

AWP
156

*Applicant failed
to take
proper
and
effective
corrective
action*

Our bases for the above findings included the following:
(1) the aforementioned Bechtel drawing specifies the use of a welding procedure applicable to prequalified weld joints although the weld joints called out on the drawing do not meet all of the requirements of Section 2 of the AWS D1.1 code for prequalified joints, and (2) the drawing permitted the use of fillers in a manner contrary to requirements of Section 2 of the AWS D1.1 code.

The designs of the weld joints were significantly different from that specified for AWS prequalified weld joints. Differences included shape and type of weld joint and weld size, e.g., weld sizes specified for fillers for Beam Nos. 24, 25 and 29 were less than that required for BTC-P4 welds by paragraph 2.10.3 of the applicable AWS code.

PECO's response to this apparent item of noncompliance indicated that clarifying revisions had been made to drawings, but stated that code requirements were met. Further corrective actions are required to assure that (1) the requirements of AWS D1.1 have been met in the performance of the modifications, and (2) suitable measures are provided and implemented to control deviations from quality standards during the design process.

*AWP
157*

(Keep these + pages to go new)

353-78-08

JAN 31 1979

APPENDIX A

NOTICE OF VIOLATION

Philadelphia Electric Company

Docket No. 50-352

This refers to the inspection conducted by a representative of the Region I (Philadelphia) office at the Limerick Generating Station, Unit 1, Limerick, Pennsylvania, of activities authorized by NRC License No. CPPR-106.

During this inspection, conducted on December 26-29, 1978, and January 2, 1979, the following apparent item of noncompliance was identified:

10 CFR 50, Appendix B, Criterion V, states, in part, that: "Activities affecting quality shall be prescribed by documented instructions, procedures, or drawings ... and shall be accomplished in accordance with these instructions, procedures, or drawings."

The Limerick PSAR, Appendix D, Quality Assurance Program, Paragraph D.6.4, states, in part, that: "(Bechtel) quality control engineers ... are responsible for preparing inspection plans in accordance with the Field Inspection Manual, (and) Performing Quality Control Inspections." Bechtel Project Special Provisions Procedure G-6.1 states in Section 3.1.5 that "an Inspection Point (I) in the Quality Control Instruction (QCI) is a mandatory inspection point beyond which work shall not proceed past the point where the designated activity is no longer inspectable".

Contrary to the above, on December 2, 1978, the welding of a two inch nipple onto pipe spool piece FSK-EBB-129-379 had proceeded beyond the point where some of the designated mandatory inspections could not be performed.

This item is an infraction.

Inasmuch as mandatory inspection could no longer be performed as a result of proper control, this demonstrates a failure by Applicant.

62-155-08
ISSUED 12-27-78
N-114-
FINDINGS REPORT

8. Licensee Action on Previous Inspection Findings

(Closed) Unresolved (352/78-03-05): Bechtel Job Rule JR-E-1 was completely revised (Revision 9, issued July 26, 1978) based upon IEEE Standard 43-1974 requirements. A memo was issued by Bechtel, dated August 7, 1978, listing motors that are to be meggered in accordance with the Job Rule (E-1, Revision 9), in lieu of the vendors instructions. The GE supplied motors for the core spray, RHR and reactor recirculation pumps were on this list. This item is considered resolved.

(Closed) Unresolved (352/78-02-02): Bechtel Drawing C-637 was revised (Revision 8) to state which "Guides" listed on the drawing are mandatory and will require prior engineering approval for deviation. Bechtel issued a checklist (No. 15) which lists the C-637 Drawing mandatory inspection criteria. The project QC instructions for concrete preplacement (8031/C-1.20, Revision 10) were revised to incorporate checklist No. 15.

The inspector reviewed PECO Surveillance Report No. G-19 which detailed the search that PECO had performed to ascertain that for the Limerick Units no other design "Guideline" document existed.

This item is considered resolved.

9. Safety Related Piping Installation (Unit 1)

- a. The inspector observed welding of safety related piping at various stages of weld completion to determine if regulatory requirements and PSAR commitments are adhered to. The following weld joints in various stages of completion were inspected.

HBB-127-1/7-M57

FSK-EBB-129-3/9-No. 51

No items of noncompliance were identified.

- b. The inspector reviewed the weld history cards and quality control inspection reports for the above weld joints. For weld joint FSK-EBB-129-3/9-No. 51 (the welding of a two inch

(over)

177

177

nipple to the pipe spool) the inspector observed that there were three (prior to welding) inspection hold points listed on Quality Control Inspection Report No. M55 which were not signed off as acceptable. These inspection hold points were as follows:

- (1) Activity #2.2 - verification of materials
- (2) Activity #2.3 - inspection for cleanliness and surface defects, and
- (3) The authorized code inspector's hold point for activity 2.3.

Further investigation indicated that neither the authorized code inspector nor the Bechtel QC engineer were notified prior to the welding of the 2" nipple to pipe spool that construction was ready for them to perform their respective inspections.

The work had proceeded beyond the point where it was not feasible to adequately perform the cleanliness and surface defect inspections (activity 2.3) as described in QC inspection (No. 8031/P-1.10). The licensee was informed that this was contrary to the requirements of the Project Special Provisions Procedure G-6.1, Revision 1, and Appendix B, Criterion V of 10 CFR 50.

This is considered to be an item of noncompliance. (352/78-12-02)

10. Preservice Inspection (PSI) Activities (Unit 1)

The licensee has contracted Nuclear Energy Services, Inc. (NES) to perform the PSI examinations required by Section XI of the ASME Boiler and Pressure Vessel Code. The ultrasonic examination of piping welds is governed by Appendix III of Section XI, 1974 Edition, Winter 1975 Addenda as modified by Paragraph IWA-2232 of the Summer 1976 Addenda.

The inspector observed NDE in progress, reviewed NDE data and interviewed personnel with respect to the data and observations.

F.R.
N-114

7/2/78 178

ATTACHMENT I

RESPONSE TO APPENDIX A

Re 353-78-08

Item of Noncompliance

Nipple Welding beyond hold point where mandatory inspections could be performed.
10 CFR 50, Appendix B, Criterion V, states, in part, that:
"Activities affecting quality shall be prescribed by documented instructions, procedures, or drawings ... and shall be accomplished in accordance with these instructions, procedures, or drawings."

The Limerick PSAR, Appendix D, Quality Assurance Program, Paragraph D.6.4, states, in part, that: "(Bechtel) quality control engineers... are responsible for preparing inspection plans in accordance with the Field Inspection Manual, (and) Performing Quality Control Inspections." Bechtel Project Special Provisions Procedure G-6.1 states in Section 3.1.5 that "an Inspection Point (I) in the Quality Control Instruction (QCI) is a mandatory inspection point beyond which work shall not proceed past the point where the designated activity is no longer inspectable".

Contrary to the above, on December 2, 1978, the welding of a two inch nipple onto pipe spool piece FSK-EBB-129-3/9 had proceeded beyond the point where some of the designated mandatory inspections could not be performed.

Response to Item of Noncompliance

Applicant answers ignores the seriousness of the instruction IF the welder has no longer made any final inspection
The required inspections have been performed and documented. A review of other open inspection plans indicates that no other Quality Control hold points have been bypassed. In any event, if hold points are missed they are identified prior to the start of final inspections as a matter of routine, since in-process inspections are reviewed for completeness prior to the start of final inspections. In order to avoid further items of noncompliance, the Field Staff Engineering and Area Supervision were re-instructed at a meeting on January 2, 1979, on their quality related responsibilities concerning hold points.

Discussion

inspiration is only routine excuse for lack of control and corrective action after inspection we may have discovered.
It is requested that this item of noncompliance be reclassified as an unresolved item since the Quality Control Instructions on the Limerick project are designed to identify missed inspections or hold points. We do not consider it appropriate to identify this as an item of noncompliance since reviews of the in-process inspections and final inspections which follow would have identified the condition.

I-1/1

50-352/78-12

50-353/78-08

Ampl

5. DRAWING/PART NO. C-462	REV. 8	7. PROJECT NO. 8031	12. REPORTED BY Mike Kauffman	DATE 10/31/75
8. ITEM DESCRIPTION Structural Steel	9. ITEM LOCATION 3' west of B line on M line	13. VALIDATED BY Mike Kauffman	DATE 11/3/75	
6. SERIAL NUMBER Beam Mark No. 3821	8. STARTUP SYSTEM NO. N/A	15. REPLACEMENT PART NO. N/A	REV.	
9. PURCHASE ORDER NO. 8031-C-90AC	16. QC FIELD INSPECTION PLAN NO.	18. REPLACEMENT SERIAL NO. N/A		
10. CONTRACTOR/LOCATION N/A	11. ASME CODE ITEM <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	17. SOURCE Construction		

25. DISPOSITION CONCURRENCE				
REASON	PROJECT	REPAIR	YES	NO
PROJECT FIELD ENGINEER			DATE	
PROJECT ENGINEER			DATE	
PROJECT FIELD QC ENGINEER			DATE	
AUTHORIZED INSPECTOR			DATE	

16. ROUTING INSTRUCTIONS: ☒ ROUTE TO FIELD ENGINEERING ☐ ROUTE TO MATERIAL SUPERVISOR

19. NONCONFORMING CONDITION: **Drawing # HCD-103-117 requires welding to be made parallel to the longitudinal axis of the beam. Contrary to the above, a 9" x 1/4" fillet weld was made at pipe hanger connection to the beam marked # 3821, at 3'-0" west of B line.**
Non Q UNIT II HOLD TAGS: 1

20. ☐ FIELD DISPOSITION ☒ FIELD RECOMMENDATION/ROUTE TO PROJECT ENGINEERING

ACCEPT AS IS. WELD MADE IS SMALL & THERE IS NO VISUAL DAMAGE.
11-5-75
Respond by Mike Kauffman 11/7/75 10/31/75

21. FIELD DISPOSITION RESULTS:

23. ENGINEERING DISPOSITION RESULTS:

CONFIRMING TELECOPIER TRANSMISSION

24. IS DESIGN CHANGE REQUIRED <input type="checkbox"/> NO <input type="checkbox"/> YES, SEE ATTACHED:	26. REJECTED MATERIAL DISPOSITION <input type="checkbox"/> RETURN TO SUPPLIER <input type="checkbox"/> SCRAP	27. QC ACCEPTANCE
DRAWING _____ REV. _____ DCN _____	REMARKS _____	QC ENGINEER _____ DATE _____
SPEC _____ REV. _____ ADD _____		AUTHORIZED INSPECTOR _____ DATE _____

ORIGINATOR

180B



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
631 PARK AVENUE
KING OF PRUSSIA, PENNSYLVANIA 19406
RECEIVED

APR 24 1979

Docket No. 50-352

APR 23 1979

APR 25 1979

R. A. MURFORD

R A M

Philadelphia Electric Company
ATTN: Mr. V. S. Boyer
Vice President
Engineering and Research
2301 Market Street
Philadelphia, PA 19101

FILE: QUAL 1-2-2 (352/78-12)

Gentlemen:

Subject: Inspection 50-352/78-12

This refers to your letter dated March 2, 1979, in response to our letter dated January 31, 1979.

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

Your letter requested that this item of noncompliance be reclassified as an unresolved item since the Quality Control Instructions on the Limerick project are designed to identify missed inspections or hold points. You indicated that subsequent reviews would have identified the condition.

The Office of Inspection and Enforcement Inspection Report 50-352/78-12 noted in Paragraph 9 that the missed inspection hold points included some inspection requirements which were no longer feasible to perform adequately because of work which had proceeded. Subsequent identification by your program could not adequately compensate for the original omission of such inspections. We also note that consent had not been given either by the code authorized inspector or by the Bechtel QC inspector to waive the designated hold points. Therefore, reclassification of the item of noncompliance would not be appropriate.

Sincerely,

Robert T. Carlson

Robert T. Carlson, Chief
Reactor Construction and Engineering
Support Branch

The above shows total lack of control and performance to an effort to prevent proper construction activity after in proper welding has been performed.

Am: 18

APPENDIX A

NOTICE OF VIOLATION

Philadelphia Electric Company

Docket No. 50-352

This refers to the inspection conducted by a representative of the Region I (Philadelphia) office at the Limerick Generating Station, Unit 1, Limerick, Pennsylvania, of activities authorized by NRC License No. CPPR-106.

During this inspection, conducted on July 5, 6, and 9, 1979, the following apparent items of noncompliance were identified:

- A. Appendix B of 10 CFR 50, Criterion V, states, in part: "Activities affecting quality... shall be accomplished in accordance with these instructions, procedures or drawings."

The Limerick PSAR, Appendix D, Quality Assurance Program, Paragraph D.6.4, states, in part, that: "Bechtel Construction Department... is responsible for construction of the plant to approved engineering specifications, drawings, and procedures..."

F.R.
N-168

Bechtel Power Corporation Project Special Provision Procedure G-6.1, Revision 2, states in Section 4.4, "Engineering changes which effect completed work that requires further construction, shall have a new inspection record initiated by construction QC. The new inspection record is developed to cover the inspection of the work required to accomplish the engineering change."

Contrary to the above, as of July 6, 1979, a Field Design Change Notice No. 5 to Design Drawing C-292 effected the completed and QC accepted weld joint on a pipe restraint, identified as PR-9. A new inspection record was not developed to cover the inspection of the work required to accomplish the engineering change. As a result, the work required by the engineering change was not accomplished on PR-9.

This item is an infraction.

- E. Appendix B of 10 CFR 50, Criterion V, states, in part: "Activities affecting quality... shall be accomplished in accordance with these instructions, procedures or drawings."

F.R.
N-167

The Limerick PSAR, Appendix D, Quality Assurance Program, Paragraph D.6.4, states, in part, that: "Bechtel Construction Department... is responsible for construction of the plant to approved engineering specifications, drawings, and procedures..."

Att

APP
126

Bechtel Primary Containment Specification C2 (Revision 9), Section 10.1.14, applies to temporary brackets among other things, and states that: "Preheat at 200°F minimum shall be applied to all carbon steel seams whose thickness exceeds 1-1/4" regardless of ambient temperature."

N-167

Contrary to the above, as of July 6, 1979, temporary brackets were welded at several locations on the liner plate, where the plate thickness was 1-1/2 inches, and no preheat was applied.

This item is an infraction.

↑
This is an infraction that could stress
result in damage from stress. This is
to subsequent cracking. procedure.
Careless contempt for safety performance.
It is again a failure to control seams,
by the licensee. And if, as in seams,
no further action was taken, it shows
apparent did not take proper corrective
action after a deficiency was found.

A-167
187

a. Primary Steam and Feedwater Piping Restraints

The inspector inspected pipe restraint weld joints in various stages of completion. The restraints inspected were identified as PR-9, PR-42, PR-47, PR-12, PR-43, PR-11, and PR-44. The following items were found during this inspection:

- (1) A backing bar is used when welding the two circumferential pieces of a restraint together. The inspector notes that the backing bar is attached to the restraint by various amounts of weld, since there are no requirements for the amount of weld to be used. There are instances where the backing bar is either tack welded on both edges, or one edge is welded to the restraint. The inspector also could not find in various documents any acceptance criteria for what is the allowable gap between the backing bar and restraint. The inspector questioned the QC engineer what he used for an acceptance criteria. He stated that his criteria was "tight against the restraint." The inspector informed the licensee this is considered unresolved pending review of their evaluation of this situation (352/79-07-02).
- (2) The inspector also noted during his inspection of the pipe restraints that the restraints supplied by Chicago Bridge and Iron had a cope or access hole where the horizontal and vertical weld joints coincide. This was apparently done to assure that a full penetration weld is obtained. The Mississippi Valley Company supplied restraints do not have an access hole at the weld joint junction, therefore, it is questionable that the required full penetration weld can be obtained. The licensee stated that this item will be evaluated. The inspector informed the licensee this item is considered unresolved pending review of their evaluation (352/79-07-03).
- (3) During the inspection of completed restraint, identified as PR-9, the inspector noted that the backing bar was welded on one edge only and was warped. The completed weld joint (horizontal) was approximately 1/4 of an inch misaligned. The weld joint was accepted by QC engineer on April 9, 1979. A review of Drawing C-292, Revision 8, indicated that a Field Change Request No. C-5542F was issued on April 9, 1979 to provide for fitup tolerances for restraints. This request was approved as Field Design Change No. 5 and it requires that when there is a misalignment (1/2" maximum) the backing bar is to be removed after one side of weld joint has been welded and a six to one taper shall be provided at the weld joint where the backing bar was. This was not done. This is contrary to the Limerick Procedure PSP-G-6.1, Revision 2.

F.R.

N-169

That looks like licensee's arbitrary rule. Why isn't there a specific description?

F.R.

N-166

This again looks like incomplete control by licensee.

F.R.

N-168

Since only certain activity is checked, there could be many such discovered or amplified by subsequent cause & effect problems.

7/1/89

F.R.
N-168

which requires a new inspection for additional work to be accomplished to completed work due to an engineering change. The licensee was informed that this was an item of noncompliance (352/79-07-04).

- (4) During the above inspection of restraints, the inspector also noted that temporary brackets (used for construction aids) were welded to the containment to temporarily support or align piping. The inspector asked to see documentation for these temporary welds to determine if they were being controlled. The inspector found that these welds were treated as nonsafety related, therefore, Quality Control was not involved and weld history information was not documented. Several of the welds were made on liner penetrations (penetrations X9A and X9B), which were 1-1/2 inches thick, therefore, requiring a minimum preheat of 2000F. The licensee was informed that this was contrary to the requirements of Bechtel Specification C-2, which require that welding of temporary attachments be controlled (use of qualified welders and procedures, preheat, and nondestructive examination of liner after removal of temporary attachment.), and that this is an item of noncompliance (352/79-07-05).

F.R.
N-167
*more lack of
Control of
performance*

5. Reactor Coolant Pressure Boundary - Review of Records (Unit 1)

A review of two pipe spool Quality Assurance Document packages was performed to verify compliance with Specification P-312, the ASME III Code, and Regulatory Requirements. The following pipe spool document packages were reviewed:

<u>Pipe Spool</u>	<u>Size</u>	<u>Nuclear Class</u>	<u>Material</u>
DCA-105-1-3	20"	1	304 Stainless Steel
DCA-105-1-4	20"	1	304 Stainless Steel

The documents reviewed consisted of the material test reports, shop fabrication and inspection records.

No items of noncompliance were identified.

6. Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items, items of noncompliance, or deviations. Three unresolved items disclosed during this inspection are discussed in Paragraphs 3 and 4.

5/2/80

- Reviewed QC inspection report (QCIR-M41-B21-G001-2-1) for this weld joint
- Verified that weldor was properly qualified
- Verified preheat and interpass temperatures were controlled in accordance with procedure (PI-AT-LH/CVN) requirements
- Verified that quality control inspection and authorized inspector hold points were adhered to

No items of noncompliance were identified for the above inspection.

During the above inspection the inspector noted that the opposite weld joint end prep (WA3) had to be modified (mitered) in the field for alignment purposes. The inspector during his plant tour observed the final stages of machining of the weld end prep on October 16, 1979. During the investigation of the various documents involved in this modification, the inspector determined that the documents were issued after the machining was practically complete. The Bechtel re-work notice P-726 was issued on October 16, 1979. The General Electric (supplier of pipe spool piece) issued the field deviation disposition request on October 16, 1979. The inspector informed the licensee that this was contrary to the G.E. specification 22A2513, which requires G.E. approval prior to re-working. The licensee stated that one of their QA engineers also uncovered this and issued a PECO audit finding report (number P-285, dated October 16, 1979). The inspector informed the licensee that this item is considered unresolved pending review by an NRC inspector of the corrective action taken assure that the requirements of procedures, specifications and instructions will be adhered to for safety related activities inside the containment. (352/79-11-01).

Also during the above inspection the inspector noticed a non-conformance (NCR) tag (#3795) on a reactor recirculation restraint located at azimuth 90° and elevation 278'. The tag stated that there was a crack in the fillet weld (attachment weld for restraint to biological shield). The inspector reviewed the NCR report which was validated October 12, 1979 and held discussions with Bechtel welding engineer and the piping foreman to determine the cause for the crack. It was both of their opinions that it was caused by improper sequencing of the weld. The inspector reviewed the weldor's qualification and found that he was properly qualified on October 3, 1979, for this welding. It appears that this was his first production

Applicant in proper Control of Performance welding

Applicant received P-285 finding report on the NCR day the NRC inspector found work not in conformance with required procedure. The Applicant appears to try to cover up its non-conformance with a late copy of its finding report. After notified of the nonconformance, the Applicant was notified of the nonconformance because of the occurrence of a crack in the restraint. The Applicant's lack of control of performance.

AWPP 194

Further
indication of
inadequate
control of
performance

weld onsite. The inspector informed the licensee that the AWS D1.1 Section 3.4 requires that the contractor shall develop welding sequences which control distortion and shrinkage. It is the licensee's opinion that the cracking of weld was not due to sequencing of the weld and that they are evaluating the cause. The licensee also stated that the engineering disposition for the NCR (sixty days from issue) will state the cause and corrective action. The inspector also stated that he is concerned, that since the welds for attaching restraints to the biological shield wall do not receive any non-destructive examinations other than a visual (no magnification) that there may be other cracks not detectable by the naked eye. This item is unresolved pending review by the NRC inspector the licensee's corrective actions (352/79-11-02).

- c. Observed postweld heat treatment (PWHT) of feedwater weld joint (DLA-107-1-7 to DLA-107-1-1 at FW #50), to determine that requirements of Bechtel Job Rule G-33 Revision 6 and ASME Code are adhered to. The following activities were inspected:
- Verified recorder (W361) was in calibration
 - Observed placing of thermocouples, installation of heaters and wrapping of insulation blankets
 - Observed portions of heat up rates holding temperatures and cooldown rates
 - Reviewed various types of documentation (workorder, QC records, recorder chart etc.) associated with this PWHT

No items of noncompliance were identified.

- d. The inspector reviewed welder training records for the past three months and compiled a list of weldors who are welding safety related items where only a visual examination is required. Two reactor recirculation restraints were randomly selected where the welds attaching the restraints to shield wall were made in accordance with Bechtel drawing C-956 Revision 2 requirements and accepted by quality control. The restraints were at location azimuth 105° and 135° on the shield wall and welds were accepted by QC on October 17, 1979 and November 1, 1979, respectively. No weld defects were noted (inspector used 5x magnification), however, the inspector noted that the restraint at the 135° azimuth the vertical welds were ground while at 105° it was not. The inspector questioned the Bechtel QC engineer what was the maximum reinforcement allowed by AWS D1.1 code and used for acceptance. He replied that one-eighth was the requirement. The code appears to be unclear and the licensee and Bechtel are to evaluate what maximum reinforcement is allowed for this particular joint configuration. This item is unresolved pending review of code and design requirements (352/79-11-03).

AWP
155

1E 80-03
(Mar. 25, 1980)

9. Cracking of Welds in Reactor Recirculation Pipe Restraints (Unit 1)

The inspector reviewed nonconformance report (NCR) No. 4018 which involved the cracking of weld joints during the welding of a reactor recirculation pipe restraint, located at azimuth 0° and elevation 278. This restraint was being welded to an embed in the biological shield and this is the second restraint that has cracked during welding (see unresolved item in inspection Report 352/79-11). The licensee was informed that the NCR did not evaluate the possible cause for the cracking and that the NRC inspector is concerned that the final welds on these particular type of restraints do not receive a non-destructive examination (liquid penetrant or magnetic particle examination). This item is considered unresolved pending review of licensee's evaluation as to the cause of cracking and their decision on performing NDE other than visual for these restraints (352/80-03-02).

10. Licensee Action on Previous Inspection Findings

(Open) unresolved item (352/79-11-02): the inspector reviewed the status of the licensee's evaluation of the cause as of the cracking of pipe restraint weld. The following memoranda or letters were viewed:

- Licensee QA organization's memo dated Oct. 22, 1979 to their engineering division requesting they evaluate that liquid penetrant (LP) or magnetic particle (MP) examination be performed on reactor recirculation restraint based upon the complex welding and cracking of welds.

Licensee's memo dated Jan. 23, 1980 concluded that LP or MP is not required due to cracking caused by improper weld sequencing.

On Feb. 19, 1980 the licensee's QA organization issued a memo to their engineering division to re-evaluate the need for LP or MP of the completed restraint weld joints due to another reactor recirculation restraint cracking, whereby the proper weld sequence was used.

- Bechtel letter dated Nov. 8, 1979 evaluating the cause of cracking. The conclusion drawn was improper weld sequencing.
- Bechtel field memo, dated 10/29/79 was an evaluation as to cause of weld cracking. The conclusion drawn was improper weld sequencing was used by the welder.

This item is considered still open pending review of the licensee's engineering reply to their QA organization's memo dated Feb. 19, 1980.

*Shorts
inspected
field rep by
Bechtel
& Licensee*

APP 20

APPENDIX A
NOTICE OF VIOLATION

Philadelphia Electric Company

Docket No. 50-352
(A-12)

This refers to the inspection conducted by representatives of the Region I (Philadelphia) office and the Senior Resident Inspector at the Limerick Generating Station, Unit 1, Limerick, Pennsylvania of activities authorized by NRC License No. CPPR-106.

During this inspection conducted on June 16, 1980 - June 27, 1980, the following apparent items of noncompliance were identified.

- A. Appendix B of 10 CFR 50, Criterion V, states in part: "Activities affecting quality shall be prescribed by documented instructions, procedures, or drawings and shall be accomplished in accordance with these instructions, procedures or drawings."

*Applicant is
primarily
responsible
control all
activities.*

The Limerick PSAR, Appendix D, Quality Assurance Program, paragraph D.4.3.2 states in part: "The subcontractor shall have written procedures for control of the required testing and inspection programs on the item under contract. These procedures shall cover all nondestructive testing..."

Schneider Inc. procedure PPM 5.1 Revision 0 requires that Quality Control inspection personnel have experience and training and be certified as qualified prior to performing inspections.

Contrary to the above, on June 18, 1980 an individual who worked for Schneider Inc. as a QC inspector performed receipt inspections without being properly certified as a qualified inspector.

This item is a deficiency.

- B. Appendix B of 10 CFR 50, Criterion V, states in part: "Activities affecting quality shall be prescribed by documented instructions, procedures, or drawings... and shall be accomplished in accordance with these instructions, procedures, or drawings."

The Limerick PSAR, Appendix D, Quality Assurance Program, paragraph D.4.8 states, in part: "The subcontractor shall have instructions governing the control of measurements. These instructions shall include, as appropriate, calibration to standards and accuracy requirements..."

A-FF
210

2. Plant Tours (Unit Nos. 1 and 2)

The inspector routinely toured the facility and outlying areas inspecting ongoing work. He observed pipe welding, installed structural steel and equipment supports, electrical and instrumentation, installed equipment and quality control activities.

During the observation of main steam line pipe welding activities, the inspector examined a nearby rigid strut main steam line support, EBB-102-H15. He noted that the structural beam supporting the rigid strut had copes and welding undercut which do not meet AISC and AWS codes. This beam and similar beams are located in the Turbine Building which is not a seismic category I structure. However, the main steam line is seismic category I at this location. The PSAR acknowledges that the Turbine Building is not seismically designed and that the main steam line and its supports will be attached to this structure. The facility "Q-List", which designates equipment important to safety, implies that the subject beams are safety related and that the boundary of the "Q-List" is the weld attaching the beam to the building steel. These beams are not currently designated as "Q-Listed". This matter is considered unresolved pending determination that these beams are part of the pipe support and "Q-Listed". (80-20-04)

3. Licensee Action on Previous Inspection Findings

(Closed) Noncompliance (352/77-12-01 and 353/77-12-01)

(Open) Unresolved Item (352/77-12-02)

Nonconforming field welds (77-12-01) and shop welds (77-12-02) on the RHR heat exchanger supports. Reference IE Report 352/78-05.

The licensee responded to the item of noncompliance on the field welds by:

- Re-inspecting all field welds.
- Re-inspecting a sample of welds previously accepted by the quality control inspectors involved.
- Holding training classes for quality control welding inspectors.

The inspector reviewed Nonconformance Reports Nos. 2970, 2971, 2972 and 2973 which documented the re-inspection of the RHR heat exchanger supports and the disposition of those identified as unacceptable. He reviewed the Field Inspection Reports Nos. C63-24, 40, 41, 42, 43, 46 and 47 which document the sample re-inspection of the quality control inspectors

Shows improvement in inspection procedure by applicant (found by NRC as in 76-06-01).

*(X) n p p
235*

<u>Weld Joint</u>	<u>System</u>	<u>Nuclear Class</u>	<u>Status*</u>
ECC-106-1/1-FW62	Reactor Water Cleanup	III	F&I
EBB-106-1/8-FW4	Main Steam By-pass	II	F&I
GBC-101-14-W058	Main Steam Relief	III	F
HCB-107-1/2-FW61	Liquid Rad Waste	II	F&R
BWR-PD-1REC-1/4 WA3	Reactor Recirculation	I	I

* F-Fit-up; I-Intermediate weld passes; R-Root pass

During the observation of welding activities on weld joint BWR-PD-1REC-1/4 WA3, the inspector noted that the weld groove preparation on the pipe elbow was being ground approximately 3/16" into the base material and around the circumference approximately 49". Further investigation disclosed that no written authorization existed for this alteration to the weld groove. General Electric Specification 22A2284, Revision 2, "Field Erection of Reactor Recirculation Piping", paragraph 4.7.1. Piping Butt Joint End Preparation, requires that, "...Existing piping butt joint end preparation shall not be remachined, filed, ground or otherwise changed without prior approval of General Electric". The failure to perform welding activities in accordance with applicable specifications is an item of noncompliance with 10CFR50, Appendix B, Criterion IX (352/80-20-01).

The inspector noted that the licensee has made a significant change in his pipe welding inspection program in that certain inspections are no longer "Hold Point". The quality control verification of purge gas, cleanliness, tack welds, and alignment are no longer performed on a 100% basis. This change is reflected in Bechtel Quality Assurance Manual - ASME Section III, Division 1, WD-1, paragraph 7.4. A note permits the Lead Welding Quality Control Engineer to determine if these attributes are checked on a "surveillance" or "inspection" basis. In this case, inspection meaning a hold point beyond which work may not proceed and surveillance meaning work may proceed without the check being made. The surveillances are made at the option of the inspector.

F.R.

N-223

Failure to
Control
Performance

and quality
control. licensee
is arbitrarily ignoring
required "Hold Point"

AWPP
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Item of Noncompliance - E

Infraction

Appendix B, of 10CFR50, Criterion V, states in part: "Activities affecting quality...shall be accomplished in accordance with those instructions, procedures or drawings..."

The Limerick PSAR, Appendix D, Quality Assurance Program, paragraph D.6.4 states, in part, that: "Bechtel Construction Department... is responsible for construction of the plant to approved engineering specifications, drawings and procedures..."

Limerick Project Standard for Visual Examination Acceptance Criteria for Welded structures, 8031-G-20, paragraph 4.1.6.1 states, in part, "...undercut not exceeding 1/32" may be accepted..."

Contrary to the foregoing, on November 14, 1980, 10 areas of undercut exceeding 1/32" in depth were observed on the feedwater pipe restraint depicted on drawing C-836, Revision 5.

Response

The subject feedwater pipe restraint was inspected by Bechtel Power Corporation inspectors subsequent to the NRC identification of the deficiencies. Additional deficiencies identified were recorded on a Bechtel Power Corporation Nonconformance Report for engineering evaluation. As a result of this inspection, further inspections are required in order to perform an engineering evaluation of the conditions. The additional inspections and engineering evaluation will be completed by May 1981 and rework, if required, will be completed by July 1, 1981.

To prevent recurrence, the manufacturer sent a representative to the site to observe the conditions first hand. In addition to this, a Philadelphia Electric Company audit of the vendor involved to check on the effectiveness of his welding inspection program will be conducted during the 3rd week of January 1981.

Shows
affirmative
indications
Control
by AC
+QA.

*Show in proper
action for
deficiency is found*

APPENDIX A

NOTICE OF VIOLATION

Docket No. 50-35

Philadelphia Electric Company
Philadelphia, Pennsylvania 19101
License No. CPPR-106

As a result of the inspection conducted on January 5-30, 1981, and in accordance with the Interim Enforcement Policy, 45 FR 66754 (October 7, 1980), the following violations were identified:

- A. 10 CFR 50, Appendix B, Criterion XVI, states, "...conditions adverse to quality, such as...nonconformances, are promptly identified...that the cause of the condition is determined and corrective action taken to preclude repetition... and the corrective action taken shall be documented and reported to appropriate levels of management."

The Limerick PSAR, Appendix D, paragraph D.4.12, states, in part, that: "...The program shall provide input for the initiation of corrective action and follow-up as appropriate."

Project Special Provisions Notice, SF/PSP G-3.1, Revision 3, paragraph 3.1.5, states, "If a deficiency to the code requirements are identified within the code boundary of an ASME item, it shall be controlled by the use of nonconformance reports."

Contrary to the foregoing, on January 15, 1981, the NRC inspector discovered through observation and document review that rejectable nondestructive testing indications were identified and dispositioned on In-process Rework Notices instead of Nonconformance Reports as required. Specifically, an ASME Nuclear Class I pipe weld, DLA-107-1/FW 11, was liquid penetrant tested and rejectable linear indications were identified, "outside the areas of interest," (the adjacent base material). The indications were dispositioned on In-process Rework Notice No. W 655.

This is a Severity Level V Violation (Supplement II).

- B. 10 CFR 50, Appendix B, Criterion V, states, in part, that, "Activities affecting quality shall be...accomplished in accordance with these instructional procedures, or drawings."

The Limerick PSAR, Appendix D, paragraph 6.4, states, in part, that, "Bechtel Construction Department...is responsible for construction of the plant to approved engineering specifications..."

Bechtel Specification for Forming, Placing, Finishing and Curing of Concrete 8031-C-36, paragraph 14.0, states, in part, that, "Imperfections in formed concrete shall be repaired as soon as practicable but no later than 28 day after forms removal."

APP 242

Contrary to the above, on January 15, 1981, a concrete imperfection was observed on approximate elevation 279', in Reactor Building No. 1, in the West slab construction joint RS-P-1-4, measuring approximately 2" deep by 1" high by 1' in length. The Quality Control Inspection Record No. C-140-RS-P-1-4, executed on October 10, 1977, did not record this condition.

This is a Severity Level V Violation (Supplement II).

- C. 10 CFR 50, Appendix B, Criterion IX, states, in part, that, "...Welding... (is) controlled...in accordance with applicable codes, standards, specifications...".

The Limerick PSAR, Appendix D, paragraph D.6.4, states, in part, that, "Bechtel Construction Department...is responsible for construction of the plant to approved engineering specifications...".

Welding Procedure Specification P1-A-LH (Sheet), Revision 0, requires that welding be performed in accordance with the General Welding Standard, GWS-Structural. The GWS, in paragraph 5.1 and Table GSW - Structural - 1, requires that for E7018 electrodes and material thickness in excess of 1½" through 2½", the welding preheat be maintained at 150° F.


Contrary to the above, on January 21, 1981, the welding on the safety-related electrical supports, Weld No. R-431-4, consisting of a 5/8" plate welded to a structural beam flange greater than 1½" thick, did not have preheat applied to a temperature of 150° F.

This is a Severity Level V Violation (Supplement II).

Pursuant to the provisions of 2.201, Philadelphia Electric Company is hereby required to submit to this office within twenty-five days of the date of this Notice, a written statement or explanation in reply, including: (1) the corrective steps which have been taken and the results achieved; (2) corrective steps which will be taken to avoid further violations; and (3) the date when full compliance will be achieved. Under the authority of Section 182 of the Atomic Energy Act of 1954, as amended, this response shall be submitted under oath or affirmation.

FEB 27 1981

Dated _____


Robert T. Carlson, Chief
Reactor Construction and Engineering
Support Branch

AWP
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The following observations were made during the tours:

F.R.
N-238

→ A concrete defect was observed at elevation 283', in the West concrete slab, No. RS-P-1-4. The defect was in the construction joint of the slab to wall and measured approximately 2" deep by 1" in height by 1' in length. A review of the Quality Control Inspection Record No. C-140-RS-P-1-4 disclosed that inspections for defects had been completed and had not identified the defect. Paragraph 2.2.b of the QCIR states that, "Surfaces inspected for major defects". The failure to identify and evaluate the aforementioned defect is contrary to the requirements of 10CFR 50, Appendix B, Criterion V, and an item of noncompliance. (352/81-01-01)

F.R.
N-240

→ Observation of electrician welders making cable tray and conduit hanger support attachments to building structural steel disclosed that they were being made without the required preheat being applied. The weld, R-431-4, was being made to the flange of a W36x300 structural beam of the reactor building. The prescribed welding procedure specification, P1-A-LH (Sheet), Revision 0, requires that welding be performed in accordance with General Welding Standard, GWS-Structural. The standard GWS-Structural further imposes preheat requirements for the welding of structural components in Section 5.0 and table GWS-Structural-1. It requires that, for materials in excess of 1½" through 2½", a preheat of 150°F be applied before welding and maintain throughout. The inspector felt the weld immediately after the welder completed a weld and observed that the metal was only warm to the touch not uncomfortable. The welder acknowledged that preheat was not employed. The failure to preheat structural steel base materials in accordance with requirements is contrary to 10 CFR 50, Appendix B, Criterion IX, and an item of noncompliance. (352/81-01-02)

-- While touring the reactor pressure vessel (RPV), it was noted that chemically treated lumber and a trash bag were being stored in the recirculation loop nozzle. The lumber is treated to be fire retardant. Supervisory personnel were unable to confirm if these materials are acceptable for use inside the RPV. The material control document, ASM-1, dated August 3, 1979, titled, "Approved Site Material for Support of Reactor Pressure Vessel Internals Installation", does not specifically address the fire retardant wood. It does specify certain types of plastics for use. However, at the time of this inspection, the acceptability of these materials was indeterminate. This matter is considered unresolved pending confirmation of the acceptability of these materials. (352/81-01-03)

-- The inspector examined welding on the RPV shroud lifting device. He noted that no preheat was being employed as specified by the welding procedure (W)-1/1-OS-1L. Further inspection revealed that the shroud lifting device is not considered "Q" listed and beyond the normal scope of quality control inspection. The inspector stated that, although the lifting device is not safety related, it is employed to place the shroud in the vessel. Both of these items are safety related and even precaution should be taken to preclude construction damage to them.

AWPP
244

The licensee took action to provide preheat for subsequent welds. The inspector witnessed parts of the nondestructive tests performed on the lifting device. He also made selected visual and dimensional examinations of the device and verified they conformed to the drawing No. LM 005/1. The inspector had no further questions concerning this matter at this time.

F.R.
N-239

→ The inspector noted that workmen were grinding on a valve body to remove liquid penetrant test indications. These indications were found while testing the pipe to valve weld, HCC-101-6/12 FW 7, and documented on Peabody Testing Report PBT-PT-7420. The repairs were being carried out under an In Process Rework Notice (IPRN), No. W-652. The valves are ASME Code valves and should not have rejectable indications when they arrive in the field. Furthermore, if defects are noted in this type of equipment, a Nonconformance Report should be written. It was determined that these valves are not "Q" listed and normally beyond the purview of the NRC. However, the practice of dispositioning potentially harmful defects in ASME Code pressure boundary parts on IPRN's in lieu of a Nonconformance Report was cause for further investigation.

A review of the IPRN log revealed that other similar, safety related components have been dispositioned using IPRN's. Specifically, IPRN W655, dispositioned 2 rejectable linear liquid penetrant test indications "outside the area of interest" (i.e., the base metal) on the nuclear Class I pipe weld DLA-107-1/16 FW 11.

The Project Special Provisions Notice, SF/PSPG-3.1, Revision 3, "Control of Nonconforming Items", paragraph 3.1.5, requires that, "If a deficiency to the code requirements is identified within the code boundary of an ASME item, it shall be controlled by the use of nonconformance reports". The failure to disposition nonconforming conditions on ASME III Code base materials in accordance with the foregoing Project Special Provision is contrary to 10 CFR 50, Appendix Criterion V and an item of noncompliance. (352/81-01-04)

3. Licensee Action on Previous Inspection Findings

(Closed) Unresolved Item (352/79-11-05) Storage requirements for emergency diesel generators. Two aspects of generator storage were not adequately addressed in the storage instructions: (1) The energizing of alternator space heaters and (2) periodic test meggering of the windings.

A review of the electrical quality control records for maintenance and storage disclosed that periodic meggering of the fields and armatures of the generators is being accomplished. A computer card for each generator is printed out each test period. The meggering records were verified for emergency diesel generators 2AG501 and 2BG501 for the time periods

AMP
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ATTACHMENT I
RESPONSE TO APPENDIX A

IE Reports
81-06
81-05

Violation - A

10 CFR 50, Appendix B, Criterion XVI, states, in part, that: "Measures shall be established to assure that conditions adverse to quality are promptly identified and corrected."

The Limerick PSAR, paragraph D.4.12, states, in part: "The program shall provide input for the initiation of corrective action and followup as appropriate."

The Limerick Quality Assurance Plan, Volume 1, Appendix S, "Procedure for Processing Field Initiated Finding Reports", paragraph S-5.1.7, states: "The Responsible Organization shall take or have corrective action taken".

Contrary to the above, welding inadequacies were not properly corrected in that Field Finding Report N-173, issued on November 1, 1979 for corrective action on an NRC finding which resulted in the January 11, 1980 forwarding of a citation for noncompliance with fire damper welding requirements, was improperly closed out by the architect-engineer and that closure was accepted by the licensee on February 6, 1980. Closure was based on contractor rework of fire damper installations to assure compliance with the approved Field Change Request FCR-C6351 requirement for alternate, interim welding of fire damper exterior welds which do not meet accessibility requirements and upon future fire damper installation in accordance with FCRC6351 or an alternate acceptable method. NRC inspection in April 1981 disclosed that fire protection dampers FPD-202 FPD-201-31, and FPD-202-44 had exterior welds without sufficient access for inspection.

This is a Severity Level IV Violation (Supplement II.D.1) applicable to CFP-106.

Response to Violation

Corrective actions taken by the Licensee to ensure that identified Items of Noncompliance will be completely corrected and will not recur were:

1. A review was performed on the Licensee responses since 1979 to NRC Items of Noncompliance. Any response which committed to future actions was followed up to ensure that the actions were satisfactorily accomplished.
2. Philadelphia Electric Company Finding Report N-173 was initially closed out based on a commitment by the HVAC Subcontractor to perform a reinspection of all previously installed fire dampers. In the future, all finding reports generated as a result of NRC Items of Noncompliance with acceptable resolutions will not be closed out until the corrective actions have been satisfactorily accomplished and verified.

APP 246

I 1
50-352/81-
50-353/81-



QUALITY ASSURANCE

Example where
PECO's Quality Assurance
Quality Control
is questioned by NRC
supp (F.R.)

Erni Klassen

LGS Units 1 & 2

Project

QUAL 1-2-2-1 (20-21)

QUAL 1-2-2-2 (80-14)

File No.:

FROM	<u>E. C. McCabe</u>	<u>NRC</u>	TO	<u>R.A. Mulford</u> <u>H.R. Walters</u>	<u>PECO</u>
	Name	Organization		Name	Organization
DATE	<u>5/20/81</u>	TIME	<u>9:40 am</u>		

SUBJECT: PECO Response to Ins. Report Nos. 50-352/80-21 & 50-353/80-19 wherein PECO requested NRC to reconsider violation resulting from QC doing surveillances on weld fitup. These surveillances are done on random basis rather than utilizing a statistically based sampling method.

utilizing a statistically based sampling method.

Supp(F.R) contends well Sampling should be statistically based.

DISCUSSION SUMMARY (Commitments, Problems, Agreements, Etc.) Supp(F.R).

ECM: We have prepared a draft of a letter which disagrees with FECO's response. However, we believe it would be desirable to discuss this matter before any letters are written.

PJM/ERW: We agree. Could you describe your position on FERC's response.

ECM: Yes, it is the NRC's position that:

- 1) The PSAR App. D paragraph 4.3.2 requires a 100% weld fitup inspection.
- 2) Feedback to appropriate management must be provided on fitup problems.
- 3) Verification on rework must be obtained.
- 4) Proper fitup cannot be verified without 100% inspection.
- 5) Radiography does not always show mismatch of pipe.
- 6) Permit holders in Reg. I currently perform 100% fitup inspection (based on recollections of personnel at Reg. I).
- 7) Verification by sampling is acceptable if performed under guidance of Reg. Guide 1.28 or ANSI 45.2.
- 8) This 100% fitup was included in program previously accepted by NRC but was changed without NRC's concurrence. (Note: This apparently refers to Bechtel BQAM which was revised about 4 years ago to delete 100% requirement).

Also, the NRC could interpret your response to infer that additional inspection impedes the progress of the work.

HRW: I assure you the PECO/Bechtel do not believe that ~~inspection~~ ^{inspection} ~~is the~~ ^{is the} work, and we had no intention to convey such an inference to the NBC.

I will contact responsible people and tentatively ~~arrange~~ ^{ISOAE} a meeting at Reg. I Headquarters to discuss this matter. I will ~~call~~ ^{ISOAE} and determine a mutually agreeable date.

ECB: Thank you.

Attachment A - P. 1 of 2, Rev

AWPP 246 A

RECEIVED

MAY 24 1931

QUALITY ASSURED

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FOR Limerick Generating Station _____
 _____ Title _____ No. _____
 SUBJECT PEDO Response to Ins. Report Nos. 50-352/80-21 &
50-353/80-19
 DATE 5/20/81 SHEET NO. 2 OF 2

H.R. Walters

COPY TO: J. S. Kemper
B. A. Mulford
E. C. Kistner
G. B. Eutt/Local File
Project File
J. M. Corcoran
E. Klossen (Bechtel)
B. E. Zong.

Attachment A P2 of 2

In addition to the above actions, the HVAC Subcontractor has inspected all 148 installed trap door fire dampers to determine if the welds were accessible for inspection. Any welds found to be inaccessible for inspection were fixed in accordance with the option allowed by Drawing C-616. Eleven (11) of the inaccessible welds were determined, due to size limitations and existing interference problems, to be neither accessible for inspection nor fixable per the allowed option of Drawing C-616. These eleven were evaluated and dispositioned as acceptable "use-as-is" by Bechtel Project Engineering since they will meet the actual design requirements.

The corrective actions taken by the HVAC Subcontractor to prevent recurrence were: 1) Quality Control Inspectors have had training courses in the requirements of AWS D1.1 and Specification G-20, 2) A special training session was held for the Quality Control Inspectors regarding the actions to be taken when, and if, welds or other attributes cannot be adequately inspected because of accessibility, and 3) the Site Inspection Procedure, PPM-5.3 was revised to include a requirement in the in-process inspection plan for checking welds for accessibility for inspection.

The above actions taken by the HVAC Subcontractor were completed by June 24, 1981.

Violation - B

10 CFR 50, Appendix B, Criterion V, requires in part that: "Activities affecting quality shall be ... accomplished in accordance with these instructions, procedures, or drawings."

The Limerick PSAR, Appendix D, paragraph 6.4, states in part: "Bechtel Construction Department is responsible for construction of the plant to approved engineering specifications".

Bechtel specification 8031-C-41A, paragraph 4.4, states in part: "All welding shall be in accordance with the "Structural Welding Code," AWS D1.1".

The "Structural Welding Code", AWS D1.1, requires in paragraph 3.6.4: "For buildings....undercut shall not be more than 0.01 inches deep when its direction is transverse to primary tensile stress in the part that is undercut, nor more than 1/32 inches for all other situations.

Contrary to the above, on April 22, 1981, welding undercut in excess of 1/32 inches was observed on the North Reactor Building Exhaust Stack welds on beam members 22D2 and 24D4R.

This is a severity Level V Violation (Supplement II), applicable to CPPR-106 and CPPR-107.

APP 247

I
50-352/81
50 352/81

APPENDIX A

NOTICE OF VIOLATION

Philadelphia Electric Company
Limerick Generating Station, Unit 1

Docket No. 50-352
License No. CPPR-106

During the January 11-29, 1982 inspection, and in accordance with the Interim Enforcement Policy, 45FR66754 (October 7, 1980), the following violations were identified:

- A. 10 CFR 50.55a requires that Class 1 valves comply with the ASME Draft Code for Pumps and Valves (DCPV), which specifies in Section 314.1.6 that repair welding procedures be qualified in accordance with ASME Code Section IX. ASME Code Section IX, Paragraph V-6 requires welding procedure requalification if there is a change in the heat treating temperature. The repair welding procedure, QAP-49D, dated May 7, 1971, and Procedure Qualification Record QAP-49D, dated October 26, 1971, limit post-weld heat treatment temperatures to 1100°-1300° (Fahrenheit). Further, DCPV Section 314 specifies that nondestructive tests must be performed after any heat treatment.

Contrary to the above, from December 20, 1971 to February 12, 1972, Class 1 Main Steam Isolation Valve B21F022D, Serial No. 3-683, was repair welded, radiographed, and post-weld heat treated/tempered at 1340°F.

This is a Severity Level IV Violation (Supplement II).

- B. 10 CFR 50 Appendix B Criterion V requires that activities affecting quality be performed in accordance with procedures. Project Special Provision Notice PSP G-6.1, Revision 3, Paragraph 3.1.5, specifies that inspection hold points are mandatory and work shall not proceed to a point where work is no longer inspectable. Quality Control Instruction W-2.00, Paragraph 2.4.a.1, requires that minimum preheat and interpass temperatures be verified for full penetration groove welds as a hold point inspection.

Contrary to the above, reviews on January 21, 1982, disclosed that the pre-heat and interpass temperature hold point inspections for full penetration groove welds listed on Quality Control Inspection Record C-1415-W-1 had not been performed, and the welds had been completed without them.

This is a Severity Level VI Violation (Supplement II).

Pursuant to 10 CFR 2.201, Philadelphia Electric Company is hereby required to submit to this office, within 30 days of the date of this Notice, a written reply, including: (1) the corrective steps which have been taken and the results achieved

APP 260

et No. 50-352
se No. CPPR-106

and November 30, 1983
, Appendix C) pub-
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Docket No. 50-352
License No. CPPR-106

② For the T. L. Journal permit to contribute?

- Bechtel Power Company Job Rule M-21 is the procedure established to provide direction to construction personnel regarding cleanliness controls on systems which have been turned-over to the licensee's Startup organization.

Contrary to the above, as of November 30, 1983, Job Rule M-21 had not been effectively implemented as evidenced by the failure to provide suitable cleanliness controls following disassembly of a feedwater system containment isolation valve HV41-1F010A. The valve body was open, the internal surfaces of the valve and its attached piping were exposed to the containment environment, and standing water of undetermined quality had accumulated in the valve.

This is a Severity Level IV Violation (Supplement II).

2. 10 CFR 50, Appendix B, Criterion X requires the establishment of a program that assures that examinations, measurements, or tests of material or products processed be performed for each work operation where necessary to assure quality.

Section 17.2A.10 of the Final Safety Analysis Report and Volume 1, Section 10 of the Limerick Generating Station Quality Assurance Plan establish this program.

Contrary to the above, the program established for engineering and quality inspection of pipe support hangers failed to assure the quality of two safety-related hangers in that, as of November 7, 1983, hangers VRR-IRS-HHA-1 and HHB-1, for the reactor recirculation system suction piping, were inadequately designed and installed, and the inadequacies were not identified during the engineering and quality inspections which had been completed.

This is a Severity Level IV Violation (Supplement II).

[illegible]

3. 10 CFR 50, Appendix B, Criterion V requires that activities affecting quality be prescribed by documented procedures and accomplished in accordance with the established procedures.

Project procedure PSP-G-3.1 specifies nonconformance reporting requirements and permits only one nonconforming condition to be reported in each nonconformance report (NCR).

Contrary to the above, the project procedure for NCR reporting was not followed in that, as of November 30, 1983, NCR 6507 was revised to include additional nonconformances.

This is a Severity Level V Violation (Supplement II).

Pursuant to 10 CFR 2.201, Philadelphia Electric Company is hereby required to submit to this office, within 30 days of the date of the letter transmitting this Notice, a written reply including: (1) corrective steps taken and the results achieved; (2) the corrective steps taken to avoid further violations; and (3) the date when full compliance will be achieved. Where good cause is shown, consideration will be given to extending your response time.

Ami
2606



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
831 PARK AVENUE
KING OF PRUSSIA, PENNSYLVANIA 19406

JAN 10 1984

Docket Nos. 50-352; 50-353

Philadelphia Electric Company
ATTN: Mr. John S. Kemper
Vice President
Engineering and Research
2301 Market Street
Philadelphia, Pennsylvania 19101

Gentlemen:

Subject: Combined Inspection 50-352/83-19; 50-353/83-07

This refers to the routine resident safety inspection by Messrs. S. K. Chaudhary and J. T. Wiggins on October 17 - November 30, 1983 at the Limerick Generating Station, Limerick, Pennsylvania. The inspection consisted of document reviews, interviews, and observation of activities, and the results have been discussed with Messrs. G. M. Leitch and J. M. Corcoran of your staff.

Apparent violations of NRC requirements are cited in Appendix A and categorized under the NRC Enforcement Policy, 10 CFR 2 Appendix C (47 FR 9987), March 9, 1982. A reply is required and should be prepared in accordance with Appendix A. It is exempt from the Office of Management and Budget's clearance procedures under the Paperwork Reduction Act of 1980, PL 96-511.

* In a December 2, 1983 meeting with senior Philadelphia Electric and Bechtel Power representatives onsite, the resident inspectors expressed NRC's concern over apparent weaknesses in the Quality Assurance and Quality Control programs applied to systems for which construction has been essentially completed and which are then turned-over to your Startup organization for testing. Because the violations specified in Items 1 and 2 of the enclosed Notice appear to result from these weaknesses, you are requested to incorporate in your reply to the Notice, those programmatic corrective actions to be implemented to strengthen your controls over turned-over systems.

In accordance with 10 CFR 2.790(a), a copy of this letter and the enclosures will be placed in the NRC Public Document Room unless you notify this office, by telephone, within ten days of the date of this letter and submit written application to withhold information contained therein within thirty days of the date of this letter. Such application must be consistent with the requirements of 2.790(b)(1).

*This item shows
PECO's QC + QA
almost 8 years after
"Brom stick" 2nd par.
as few 3rd par.
deficient.
Aurp
B.R.*

*Aurp
260*

Philadelphia Electric Company

2

JAN 10 1984

Your cooperation is appreciated.

Sincerely,



Richard W. Starostecki, Director
Division of Project and Resident
Programs

Enclosures:

1. Appendix A, Notice of Violation
2. NRC Region I Combined Report
50-352/83-19; 50-353/83-07

cc w/encl:

V. S. Boyer, Senior Vice President, Nuclear Power
Troy B. Conner, Jr., Esquire
Eugene J. Bradley, Esquire
Limerick Hearing Service List
Public Document Room (PDR)
Local Public Document Room (LPDR)
Nuclear Safety Information Center (NSIC)
NRC Resident Inspector
Commonwealth of Pennsylvania



AIR and WATER Pollution Patrol BROAD AXE, PA.

*Here are facts
on 76-06-01*

Here are facts backed by official documentation to prove there has been an apparant fraud by Philadelphia Electric (P.E.) involving crucial, safety related welding infractions at the Limerick nuclear reactor.

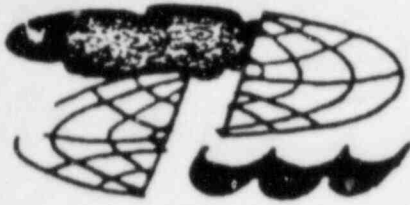
On November 10, 1976, reacting to an unannounced Nuclear Regulatory Commission (NRC) inspection report, Mr. Robert Carlson, of the NRC, wrote a letter (item 1) to P.E. Vice-President for Engineering and Research, Mr. Vincent Boyer. In that letter, Mr. Carlson notified Mr. Boyer of serious violations in mandatory construction procedures involving welding infractions in the on-going construction at the Limerick reactor. (See Inspection Report No. 50-353/76-06 (item 2); and in partucular "Notice of Violation", Appendix A, Part A (item 3) of Mr. Carlson's letter.

As discussed under Part A, the most glaring example of repeated welding violations had to do with the welding of safety-related items by non-qualified welders, using unapproved methods in contempt of specified procedures.

In this most glaring example, detailed on Page 5 of "Summary of Findings" under 76-06-01 (item 4), inspectors were recording as O.K. improperly performed welds. On learning of these repeated violations from workmen, the NRC inspector, over the objection of Philadelphia Electric, demanded an immediate inspection of questioned welds, and found them to be grossly deficient...but recorded as O.K. (described in item 4 above).

On December 15, 1976, Vincent Boyer responded to Mr. Carlson's November 19 notice of violations, by writing to Mr. James P.O. O'Reilly, Director, NRC Office of Inspection and Enforcement, at Region 1, King of Prussia, Pa. (item 5). Mr. Boyer wrote, "the inspector involved is no longer employed by the contractor and a reinspection of all other work performed by him has been accomplished where accessible". (see p 1 & 2 of attachment 1 of Mr. Boyer's Dec. 15, 1976 letter (item 6) (underlining mine).

The Air & Water Pollution Patrol, a Pennsylvania incorporated environmental group is intervening before the NRC Atomic Safety and Licensing Board contending a high potential for accident exists at Limerick. This situation exists because P.E.'s Vice-President Boyer should have requirred inspection of all welds, both accessible and inaccessible, which now, at great risk, are embedded in concrete, and are no longer accessible for inspection.



AIR and WATER Pollution Patrol

BROAD AXE, PA.

(2)

50-353--Welding--76-06-01 (cont.)

And now, seven years later, in order to counter our contention, P.E. has suddenly changed its story. Mark Wetterhahn, P.E.'s counsel, in correspondence of April 27, 1983 (item 7), responding to questioning by the Licensing Board relating to the possible impact of safety at Limerick, emphatically stated, "all welds inspected by the particular inspector, not only accessible welds were re-examined" (underlining by P.E.). (See p. 43 & 46)

Apparantly to further remove any doubts caused by our insistent contention, a follow-up letter of May 20 (item 8) from P.E.'s Counsel to the licensing Board, contained various work records, in particular Finding Report No. N 093 (Item 9), that was stated to be sent as absolute proof that all welds...accessible as well as inaccessible welds were inspected (see p.2 of May 20 letter, lines 7,8,9,10, 11). (Report No. N093 does not even discuss inaccessible welds.)

In an order dated July 26, 1983⁴, the Atomic Safety and Licensing Board, in spite of ordering that Air & Water Pollution Patrol's welding contention be thrown out, requested affidavits from Philadelphia Electric to affirm their emphatic statements contined in their April 27 letter that "all welds...not only where accessible were re-examined" (*item 10)

Unable to substantiate, via affidavit, information which had previously and repeatedly been submitted as fact, Philadelphia Electric, through its Counsel Mark Wetterhahn's letter to the Atomic Safety and Licensing Board, dated August 19, 1983 (item 11) wrote:

In the course of preparing to respond to the Atomic Safety and Licensing Board's request contained in its Second Special Prehearing Order (LPB-83-39) dated July 26, 1983, at 38-39 for an affidavit to verify the statements contained in Counsel's May 20, 1983 letter to the Licensing Board, it was learned that all inspections performed by the subject quality control inspector had not been identified and, therefore, not re-inspected as previously believed. (underlining AWPP's)

As a result of Philadelphia Electric Counsel's August 10, 1983 letter above, and the Air & Water Pollution Patrol's request for reconsideration of its Quality Assurance Contention, identified as AWPP VI-1, the Atomic Safety and Licensing Board reversed its position through its October 28, 1983 "Memorandum and Order Confirming Rulings Made At Prehearing Conference". (item 12)



AIR and WATER Pollution Patrol BROAD AXE, PA. (3)

50-353--Welding--76-06-01 (cont.)

As can be seen on p5 of that Order, our Quality Assurance Contention was only "partially admitted" thus eliminating an extremely serious known concrete defect (item 13) in the drywell wall surrounding the primary containment enclosing the reactor core.

The partial contention, after eliminating concrete and other related infractions, however, was more than just a contention. It was a proven fact, as we made known to the Atomic Safety and Licensing Board, that (as the contention reads) "Applicant has failed to control performance of welding and performance there-of in accordance with Quality Control and Quality Assurance procedures and requirements, and has failed to take proper and corrective and preventive actions when improper welding has been discovered". Items 14 & 15 is a confused attempt, via "engineering analysis" to cover one such failure.

Just as at Zimmer, Air & Water Pollution Patrol has hundreds of documented infractions of specified procedures in concrete work and safety related welding.

Just as at Zimmer, it is already known there have been slipshod inspections of safety related work.

Just as at Zimmer, it is already known there have been falsification of records.

Just as at Zimmer, workmen have anonymously reported completed and inspected as O.K work which was later shown to be improperly done.

Just as at Zimmer, there was deliberate sabotage.

Just as at Zimmer, so-called qualified workers were found to be performing improper welds and performing welding procedures for which they were not qualified.

And just as at Zimmer, the Contractor, the Applicant, and inspectors by-passed safety codes and standards, ignored their own quality assurance program, and then covered up flagrant violations, through false statements.

And just as the Nuclear Regulatory Commission was part of the whole sordid Zimmer indictment of the nuclear establishment, that same Nuclear Regulatory Commission, during much the same time was meting out gentle responses to infractions at Limerick.

And this same federal agency, while watching Zimmer and Phila-



AIR and WATER
Pollution Patrol
BROAD AXE, PA.

(4)

50-353--Welding--76-06-01 (cont.)

delphia Electric (as stated in the Inquirer, Jan. 24, 1984) repeatedly refused to insist, on safe nuclear standards even when workers and others submitted evidence of contempt for specified procedures in safety related construction work. (We may have a Limerick worker who might testify to this).


While Philadelphia Electric has, as ordered by the Atomic Safety and Licensing Board, placed all discovery documents we requested at 2300 Market St. in Philadelphia, the time allotted to Air and Water Pollution Patrol to ferret out all the details was totally insufficient, so that we could not fully search out the welding affair.

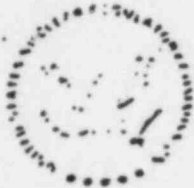
We have repeatedly pleaded with the Atomic Safety and Licensing Board (one motion for extended time is in right now) but have been refused. This is consistent with NRC non-cooperation.

AWPP has enough information, documents, logs, etc, so we could help direct where more information is. Such an effort for the people of Montgomery County and Philadelphia to avert an accident from known fraudulent welding and other construction defects, would be a highly necessary effort to avert possible tragedy.

Air & Water Pollution Patrol is very small in membership and is at the end of out-of-pocket money. We cannot hold on any longer without Federal or Congressional aid, not in money but in a complete investigation at Limerick, similar to that done at Zimmer. It would be a shame to allow negligence, contempt for public safety, dereliction of duty by the NRC, and selfishness of Philadelphia Electric, to go unchallenged simply by default.

Sincerely yours,
AIR & WATER POLLUTION PATROL


Frank R. Romano, Chairman
61 Forest Ave.
Ambler, Pa. 19002



Item 1

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
431 PARK AVENUE
KING OF PRIMA, PENNSYLVANIA 19133

November 10, 1976

Attachment I
Letter from Carlson
to Corcoran dated
November 10, 1976
Transmitting NRC IE
Inspection report No. 50-353
76-86

Philadelphia Electric Company
Attention: Mr. V. S. Boyer
Vice President
Engineering and Research
2201 Market Street
Philadelphia, Pennsylvania 19101

License No. CFP-107
Inspection No. 76-06
Docket No. 50-353

Gentlemen:

This refers to the inspection conducted by Mr. A. Toth of this office on October 16, 19-22, 1976 at the Liberick Generating Station of activities authorized by NRC License No. CFP-107 and to the discussions of our findings held by Mr. Toth with Mr. J. Corcoran of your staff at the conclusion of the inspection, and to a subsequent telephone discussion between Mr. Toth and Mr. Corcoran on November 2, 1976.

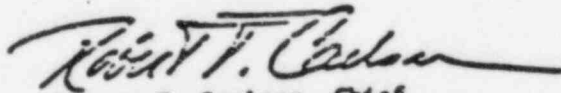
Areas examined during this inspection are described in the Office of Inspection and Enforcement Inspection Report which is enclosed with this letter. Within these areas, the inspection consisted of selective examinations of procedures and representative records, interviews with personnel, measurements made by the inspector, and observations by the inspector.

Based on the results of this inspection, it appears that certain of your activities were not conducted in full compliance with NRC requirements, as set forth in the Notice of Violation, enclosed herewith as Appendix A. These items of noncompliance have been categorized into the levels as described in our correspondence to you dated December 31, 1974. This notice is sent to you pursuant to the provisions of Section 2.201 of the NRC's "Rules of Practice", Part 2, Title 10, Code of Federal Regulations. Section 2.201 requires you to submit to this office, within twenty (20) days of your receipt of this notice, a written statement or explanation in reply including: (1) corrective steps which have been taken by you and the results achieved; (2) corrective steps which will be taken to avoid further items of noncompliance; and (3) the date when full compliance will be achieved.

In accordance with Section 2.790 of the NRC's "Rules of Practice", Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosures will be placed in the NRC's Public Document Room. If this report contains any information that you (or your contractor) believe to be proprietary, it is necessary that you make a written application within 10 days to this office to withhold such information from public disclosure. Any such application must be accompanied by an affidavit executed by the owner of the information, which identifies the document or part sought to be withheld, and which contains a statement of reasons which addresses with specificity the items which will be considered by the Commission as listed in subparagraph (b) (4) of Section 2.790. The information sought to be withheld shall be incorporated as far as possible into a separate part of the affidavit. If we do not hear from you in this regard within the specified period, the report will be placed in the Public Document Room.

Should you have any questions concerning this inspection, we will be pleased to discuss them with you.

Sincerely,



Robert T. Carlson, Chief
Reactor Construction and Engineering
Support Branch

Enclosures:

1. Appendix A, Notice of Violation
2. IE Inspection Report No. 50-353/76-06

21

Item 2

U. S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT
REGION I

IE Inspection Report No: 50-353/74-36 Docket No: 50-353
Licensee: Philadelphia Electric Company License No: CPPE-197
2301 Market Street Priority: --
Philadelphia, Pennsylvania 19101 Category: A
Safeguards Group: --
Location: Limerick, Pennsylvania
Type of Licensee: SWR - 1065 MW (GE)
Type of Inspection: Routine, Unannounced
Dates of Inspection: October 16, 19-22, 1976
Dates of Previous Inspection: July 16-25, 1976
Reporting Inspector: A. D. Toth DATE 4-3-76
A. D. Toth, Reactor Inspector
Accompanying Inspectors: None DATE _____
DATE _____
DATE _____
Other Accompanying Personnel: None DATE _____
Reviewed By: R. K. Keating DATE 4/9/76
R. K. Keating, Acting Chief, Construction Projects Section
Reactor Construction and Engineering Support Branch

Item 3

License No. CPPR-107

APPENDIX A

NOTICE OF VIOLATION

Based on the results of the NRC inspection conducted on October 16, 19-22, 1976, it appears that certain of your activities were not conducted in full compliance with conditions of your NRC Facility License No. CPPR-107 as indicated below. These items are infractions.

- A. 10 CFR 50, Appendix B, Criterion IX requires in part, "Measures shall be established to assure that special processes, including welding, ...are controlled and accomplished by qualified personnel using qualified procedures in accordance with applicable codes, standards, specifications, criteria and other special requirements."

Contrary to the above, the established measures were insufficient to assure that welding of structural steel on September 22, 1976 was accomplished in accordance with the applicable AWS-D.1.1. The fillet welds on structural steel beam connections at elevation 233, columns 23-G and 2, did not meet the quality requirements of the AWS Structural Welding Code.

Welding electrode holders were used attached to extension sticks which were not "designed or manufactured so as to enable qualified welders...to attain the results prescribed" in the AWS code, nor were procedures alternatively qualified to establish that acceptable weld quality could be attained with such sticks. Quality control surveillance inspections conducted and documented did not identify and effect correction of the condition.

- B. 10 CFR 50, Appendix B, Criterion X requires in part, "A program for inspection of activities affecting quality shall be established and executed by or for the organization performing the activity to verify conformance with the documented instructions...shall be performed for each work operation where necessary to assure quality."

Contrary to the above, the inspection of activities during October 1976 did not verify conformance with Specification A-26 Revision 2 requirements for protection of machined surfaces during sandblasting and painting operations on the containment dome, and such protection was not maintained and the machined surfaces were inadvertently painted and possibly sandblasted.

Item 4,
5, + 6

ATTACHMENT 2

Letter from V. S. Boyer to J. P. O'Reilly, dated 12/15/76

Item 4

-5-

3. Items of Noncompliance

The following three items appeared to involve noncompliance with regulations of the Nuclear Regulatory Commission or conditions of the applicable NRC license. These items are infractions.

74-64-01:

Failure To Weld Structural Steel Per AWS Code

During observation of welding of structural steel at Area 13 elevation 253, the inspector observed that one steel floor beam passed close to column H at wall line 23. The clearance was such as to limit access to the required fillet welds of angle clips to the beam end and the embed on wall No. 23. Interviews with craft and supervision personnel revealed the plan to perform the welding with the electrode holder fastened to the end of a broomstick; the personnel stated, and licensee and contractor QA and QC personnel later confirmed that this approach had been used on the similar limited access weld joints at elevation 253, columns F and H at wall 23.

The inspector determined that the weld procedure PI-A-1h (Structural) Rev. C had not been qualified using electrode holder extensions, nor had the welder been qualified using such extensions. Although the applicable Code AWS D1-1-72 does not specifically address the use of electrode holder extensions with respect to procedure/welder qualifications, it does in Part 3.1.2 require that equipment be designed and manufactured so as to enable qualified welders to attain the results prescribed in the AWS Code. The inspector considered that an electrode holder attached to a stick did not meet this requirement unless proven satisfactory by qualification test for the six different weld configurations to be welded at the limited access joints. The licensee disagreed, and the inspector requested that provisions be made to permit his visual inspection of the limited access welds performed at elevation 253 on steel beam piece numbers 23237. An elevator hoist and an inspection mirror and light were made available to the inspector. The welds were found to not comply with the requirements of AWS-D-1-1 Section 3 "workmanship," in that the welds were of unacceptable profile, contained excessive undercut, and were incomplete at the upper and lower edge of the angle clip (root pass complete, only). For the weld joints designated #3 in the record drawing of the in-process checklist, all inspection items had been checked-off by the Sechtel quality control inspector, including "Final Quality Verification." The QC inspection apparently did not comply with the requirements of AWS-D-1-1 Section 6 "Inspection." The inspector reviewed the following documentation relative to the above item:

the inspection
rel with or
without 253
on beam piece
number 232 37

Q

PHILADELPHIA ELECTRIC COMPANY

2301 MARKET STREET

PHILADELPHIA, PA. 19101

215-421-4200

V. S. BOYER
PRESIDENT

DEC 15 1976

Mr. James P. O'Reilly, Director
United States Nuclear Regulatory Commission
Office of Inspection and Enforcement, Region I
631 Park Avenue
King of Prussia, Pa. 19136

Subject: USNRC IRI Letter dated November 10, 1976
Re: Site Inspection of October 16, 19-22, 1976
Inspection Report No. 50-353/76-06
Limerick Generating Station - Unit 2
File: QCAL 1-2-2-1 (76-06)

Dear Mr. O'Reilly:

We offer the following responses to the subject letter regarding items identified during the NRC visit to Limerick Generating Station - Unit 2 on October 16, 19-22, 1976 for inspection of construction activities authorized by NRC License No. C29R-107.

- Attachment I - Response to Item A of Appendix A of subject letter.
- Attachment II - Response to Item B of Appendix A of subject letter.
- Attachment III - Response to Item C of Appendix A of subject letter.

The due date for this response was extended to December 15, 1976 in a telecon with your staff on December 2, 1976. Should you have any questions concerning these items, we would be pleased to discuss them with you.

Sincerely,

J. A. Boyer

Attachments

Item 6

ATTACHMENT I

Response to Item A of Appendix A

Deficiency

"10 CFR 50, Appendix 3, Criterion IX requires in part, 'Measures shall be established to assure that special processes, including welding, ... are controlled and accomplished by qualified personnel using qualified procedure in accordance with applicable codes, standards, specifications, criteria and other special requirements.'"

Contrary to the above, the established measures were insufficient to assure that welding of structural steel on September 22, 1976 was accomplished in accordance with the applicable AWS-D.1.1. The fillet welds on structural steel beam connections at elevation 253, columns 23-G and H, did not meet the quality requirements of the AWS Structural Welding Code.

Welding electrode holders were used attached to extension sticks which were not "designed or manufactured so as to enable qualified welders ... to attain the results prescribed" in the AWS code, nor were procedures alternatively qualified to establish that acceptable weld quality could be attained with such sticks. Quality control surveillance inspections conducted and documented did not identify and effect correction of the condition."

"Although the applicable Code AWS D1-1-73 does not specifically address the use of electrode holder extensions with respect to procedure/welder qualifications, it does in Part 3.1.2 require that equipment be designed and manufactured so as to enable qualified welders to attain the results prescribed in the AWS Code."

Response

1. The following corrective measures have been taken:

- a. The fillet welds on structural steel beam connections at elevation 253, columns 23-G and H, have been repaired.
- b. The inspector, who originally accepted these two welds, is no longer employed by the contractor and a reinspection of all other work

353/75-26
2/1

performed by him has been accomplished, where accessible. Of approximately 100 welds re-inspected, two deficiencies were noted and corrective action has been taken.

2. Action taken to prevent recurrence:

- a. A training class was conducted October 25, 1976 for re-indoctrination and re-orientation in the various aspects of acceptance of completed work, reviewing of inspection criteria, and the responsibilities of welding inspectors. All QC and field welding personnel were required to attend this training class.
- b. A Project Control Memorandum, PCM-239, was issued prohibiting the use of unauthorized extensions.
- c. Effective December 16, 1976 all welds that require the use of weld extensions shall be identified and approved by the lead weld engineer.

352/ 76-06
17 1/2

- C. 19 CFR 50, Appendix E, Criterion V requires in part, "Activities affecting quality shall be prescribed by documented instructions... and shall be accomplished in accordance with these instructions..."

Contrary to the above, on October 20, 1976 the document control requirements of job rule JR-C-5 were not implemented for design decisions to place holes in the upper flange of structural steel beams at elevation 233 of Area 13 of the reactor building.

2-4-83
April 27, 1983
46
100-442400-1000
5
UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Before the Atomic Safety and Licensing Board

In the Matter of
Philadelphia Electric Company
(Limerick Generating Station,
Units 1 and 2)

Docket Nos. 50-352
50-353

April 27, 1983
v. 3
item 7

APPLICANT'S ANSWER TO THE FURTHER PARTICULARIZATION
OF INTERVENORS' CONDITIONALLY ADMITTED CONTENTIONS

Introduction

In its "Memorandum and Order Continuing Informal Discovery, Providing for Further Specification of Conditionally Admitted Contentions and Noting Dismissal of ECNP" (February 10, 1983) ("Memorandum and Order"), the Atomic Safety and Licensing Board ("Licensing Board" or "Board") required, inter alia, that:

The intervenors shall particularize all conditionally admitted contentions, with the exception of emergency planning contentions, to the fullest extent practicable in light of the information supplied since the special prehearing conference. In judging the particularity of such contentions, and bases supplied in support of the particularized contentions, the Board will take into account the level of information presently available on Applicant's plans as they apply to a contention. Accordingly, intervenors should explain why they believe missing information prevents a contention from being particularized beyond what is set forth in the upcoming refiling of the

43

the public." This contention is completely lacking in basis. Initially, the examples given fail to establish any pattern as alleged by intervenor Romano. There is no link among the deficiencies which were found by the Nuclear Regulatory Commission. A number of non-conformances are not unexpected for a project of this size. There is absolutely no showing that there is a pattern or link among these nonconformances nor that their number has been extraordinary. Nor has Mr. Romano demonstrated how these occurrences could "increase the risk of an accident during operation." Applicant submits that the Commission has not set up this Board to duplicate the Staff's role of providing oversight of construction of the facility. Applicant sees nothing which would in any way present a specific litigable issue regarding the overall quality assurance program at the Limerick Generating Station. In particular, with regard to subpart a, Applicant submits that this is based upon a misunderstanding of the actions taken subsequent to the indicated Notice of Violation. As set forth in documents made available to Mr. Romano, all welds inspected by the particular inspector, not only accessible welds, were reexamined. Therefore, this subpart is lacking in foundation and is without basis.

[Handwritten notes on right margin: "Limerick Generating Station" and "one of the welds"]

Intervenor Romano states that he is unable at this time to provide further specificity regarding his contention. Applicant submits that the enumerated reasons for not doing

so do not constitute good cause which would allow him to amend his contention in the future.

Intervenor alleges that the Applicant has failed to supply certain documents requested during informal discovery. He asserts that "certain inspection reports and related correspondence known to exist have not been provided (or not properly identified in the large volume of documents produced in Applicant's discovery room so that intervenor could locate them)." Applicant asserts that it has made every effort to respond fairly and completely to the discovery requests of Mr. Romano. The documents responsive to his requests were of a technical nature and it is possible that he, as a layman, does not understand their import. Mr. Romano has never specifically brought to Applicant's attention any particular documents he believes were not provided and should have been as responsive to his requests. To the extent possible, documents have been segregated in separate folders responsive to each specific request.

With regard to the second reason, Bechtel Power Corporation has stated that they would not make available the name and the employment records of an individual inspector "except in response to a subpoena or other lawful process." Applicant does not understand how the refusal to provide a single name and resume would prevent specification of these quality assurance contentions.

The third reason given is the loss in mail of one of intervenors two September 3, 1982 written discovery requests

4>

to Applicant. While Mr. Romano states that other parties on the service list did receive the letter, Applicant has inquired of Staff counsel who stated that this letter was not received by the NRC Staff. In any event, a complete response to that letter was sent to Mr. Romano on April 6, 1983 and, on that date, documents responsive to that request were placed in the Applicant's document room.

Finally, Applicant sees no connection between any allegations of conditions at Three Mile Island or at the Midland site in relation to the construction of the Limerick Generating Station. Certainly, Mr. Romano does not demonstrate any such relationship.

In response to the note contained in the section stating that Mr. Lewis "intends to discontinue his participation in the QA/QC contention. . .", Applicant intends to respond to any argument Mr. Lewis might present at the prehearing conference.

LAW OFFICES

CONNER & WETTERHAHN, P.C.

1747 PENNSYLVANIA AVENUE, N.W.

WASHINGTON, D.C. 20006

OF D. CONNER, JR.
MARK J. WETTERHAHN
ROBERT M. RADEN
INGRID M. JELSON
ARCH A. MOORE, JR.
ROBERT M. PURL
OF RECORD
NOT ADMITTED IN D.C.

May 20, 1983

(202) 638-2800

CABLE ADDRESS: ATOMLAW

(Item 8)

Judge Lawrence Brenner
Atomic Safety and
Licensing Board
U.S. Nuclear Regulatory
Commission
Washington, D.C. 20555

Judge Richard F. Cole
Atomic Safety and
Licensing Board
U.S. Nuclear Regulatory
Commission
Washington, D.C. 20555

Judge Peter A. Morris
Atomic Safety and
Licensing Board
U.S. Nuclear Regulatory
Commission
Washington, D.C. 20555

In the Matter of
Philadelphia Electric Company
(Limerick Generating Station, Units 1 and 2)
Docket Nos. 50-352 and 50-353

Gentlemen:

This letter is being submitted in response to the Atomic Safety and Licensing Board's "Order Regarding Quality Assurance Documents" (May 13, 1983). Attachment 1 is a copy of NRC I&E Inspection Report No. 50-353/76-06, including the related Notice of Violation. Attachment 2 is Applicant's response thereto which is a letter from V. S. Boyer to J. P. O'Reilly dated December 15, 1976 with three attachments of which only the first is relevant to the matter raised by Mr. Romano. Attachment 3 is a December 29, 1976 letter from R. T. Carlson to V. S. Boyer acknowledging receipt of Mr. Boyer's December 15, 1976 letter. Counsel for the Staff has reviewed these three documents and agrees that they are accurate copies of the inspection report and letter sent by it and Mr. Boyer's letter received by it.

1 The remainder of the attachments hereto (Nos. 4 - 9)
2 are those documents which were made available to Mr. Romano
3 in response to his informal discovery request. In accor-
4 dance with my conversation with Mr. Romano yesterday, I am
5 sending to him by Federal Express a copy of this letter and
6 attachments such that he may make any presentation to the
7 Board that he desires regarding these documents. The
8 remainder of this letter discusses how the documents made
9 available to Mr. Romano demonstrate that all suspect welds,
10 rather than those which were merely accessible, were rein-
11 spected.

Attachment 4 is a Philadelphia Electric Company Quality Assurance Finding Report No. N-093 which was issued to the Bechtel Power Corporation (October 27, 1976). This Finding Report is the method by which, inter alia, NRC items of noncompliance are entered into the quality assurance system of the Philadelphia Electric Company for followup and disposition. Page 2 of the finding report notes the issuance of Nonconformance Report No. ("NCR") 1980 which was utilized by Bechtel to disposition the specific welds which were found to be deficient by the NRC inspector. Bechtel NCR No. 1980 is provided as Attachment 5.

PECO Quality Assurance Finding Report N-093 also requires a reinspection of all other accessible welds inspected by the particular Bechtel Quality Control Inspector who accepted the deficient welds described in the subject NRC Inspection Report and NCR No. 1980. Bechtel Field Inspection Reports (sometimes referred to as "QCGI-1 Reports" after the form utilized) which have control Nos. C-63-7 through C-63-19, issued from October 26, 1976 through November 8, 1976, (Attachment 6) document the reinspection and disposition of welds examined in 1976 in response to PECO finding report N-093 and which form the basis for Mr. Boyer's letter.

Bechtel Field Inspection Reports Control Nos. C-63-20 and C-63-21, both dated January 17, 1977, (Attachment 7) document additional reinspection of welds which were subsequently determined to have been possibly inspected by the particular Bechtel Quality Control Inspector involved. No unsatisfactory welds were found.

Bechtel Field Inspection Report Control No. C-63-22 dated April 4, 1977 (Attachment 8), documents the comprehensive review conducted to determine which of the welds inspected by the particular Bechtel Quality Control Inspector were not accessible as a result of being embedded in

Judge Lawrence Brenner
Judge Richard F. Cole
Judge Peter A. Morris
May 20, 1963
Page 3

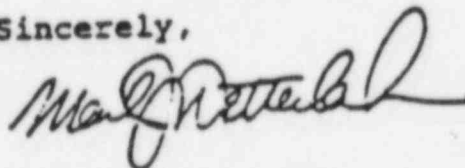
concrete and which of the welds not previously accessible, e.g., due to construction scaffolding, were then sufficiently accessible for inspection.

The results of this review are documented in Bechtel Field Inspection Report No. C-63-22. Page 8 of 8 is a summary correlation between the original Welding Inspection Plans in which the particular Quality Control Inspector participated and the Field Inspection Reports which document the reinspection of the affected welds. Bechtel Field Inspection Reports Control Nos. C-63-24 through C-63-32 and C-41A-493 dated July 1, 1977 through July 6, 1977 (Attachment 9) document reinspections not previously performed because of accessibility problems in 1976.

Field Inspection Reports Control Nos. C-63-30, C-63-31, C-63-32 and C-41A-493 describe reinspections of certain welds which were partially embedded in concrete. NCR-2710 which was generated as a result (not provided) demonstrates the acceptability of these welds. That nonconformance report documents that, for purposes of analysis, it was assumed that only the reinspected portions were sound and that the remaining embedded portion of the weld was nonexistent or failure of the entire weld was assumed. In all cases, the function of the structural member was not impaired.

I would note that Field Inspection Report Control No. C-41A-493 which is similar to the other nine in this category was inadvertently not provided to Mr. Romano during discovery. If the Board has any questions concerning this matter, please let me know.

Sincerely,



Mark J. Wetterhahn
Counsel for the Applicant

MJW:sdd
Enclosures

cc: Service List

item a

ATTACHMENT 4

Philadelphia Electric Company Quality Assurance
Finding Report No. N-093, dated 10/27/76



FINDING REPORT

RECEIVED
Limerick Units 1 & 2
DEC 10 1976 (14) PROJECT

15. CORRECTIVE ACTION TAKEN TO SOLVE FINDING (USE AND REFERENCE, ADDITIONAL SHEETS IF REQUIRED)

1. Issuance of NCR 1980 to acknowledge the nonconforming condition and to acquire dispositioning to correct same.
2. A Reinspection of all other work performed by the particular inspector who accepted the welds in question was accomplished wherever accessible.

1. Disposition on JUL 1980 - 11/17/76.
2. Various QC-GI Reports (C-65-T, C-63-T)
3. Various Training, Refresher.

ACTION TAKEN BY K. B. L. P. DATE 11-22-76 ACTION VERIFIED BY James A. Brown DATE NOV 22 1976

16. CORRECTIVE ACTION TAKEN TO PREVENT RECURRENCE (USE AND REFERENCE, ADDITIONAL SHEETS AS REQUIRED)

A training class was held 10-25-76 for re-indoctrination and re-orientation in the various aspects of acceptance of completed work, reviewing or inspection criteria and ultimate responsibilities for weld inspections with all personnel in attendance from both the QC and field welding groups.

PCM DIRECTIVE - PCM 239 PROHIBITS USE OF
BROOMSTICK EXTENSIONS

ACTION TAKEN BY K. B. L. P. DATE 11-27-76 ACTION VERIFIED BY James A. Brown DATE NOV 22 1976

17. P.E. ACCEPTANCE OF CORRECTIVE ACTION

- ☒ RESOLVES FINDING
☒ UNACCEPTABLE (SEE SHEET 3 OF 3)
☐ USE "AS IS"
☐ TEMPORARY USE UNTIL RESOLUTION

R. L. H. H. H. S. M. T. L. H. H. 12-14-76
10/20/76 11/14/76 DATE

FINDING REPORT

1. TYPE: ☐ AUDIT ☐ SURVEILLANCE ☒ IAX NRC
☐ NCR ☐ CORRECTIVE ACTION REQ'D.
☒ Item of Noncompliance

1. NUMBER N-093
2. Limerick Units 1 & 2
PROJECT
3. Bechtel Power Corp.
PRIME CONTRACTOR
4. REFERENCES
a) AWS D1.1-72 and 72 & 74
editions
DEC 10 1976
P. A. MOLEND

6. ISSUED TO C.K. Soppet - Project Manager

7. ORGANIZATION Bechtel Power Corporation

8. THOSE CONTACTED T. Alton - K. Bishop

9. TO CFR 20, APPENDIX B CRITERIA IX

10. FINDING (USE AND REFERENCE ADDITIONAL SHEETS AS REQUIRED)

Two welds from the beam to the clip on beams 23287 and 23289 in unit 2 on Elev. 257 were both incomplete and unacceptable and were made with the aid of a broom stick handle attached to the stinger to reach the joint to be welded; which is contrary to AWS section 3.1.2.

Further, inspection surveillance records indicated that these beam connections were inspected.

11. DISCUSSION (USE AND REFERENCE ADDITIONAL SHEETS AS REQUIRED)

Bechtel issued NCR No. 1980 identifying the non-conforming condition.

12. RECOMMENDATION (USE AND REFERENCE ADDITIONAL SHEETS AS REQUIRED)

IDENTIFIED	<u>A. Both</u>	<u>Inspector</u>	<u>10/27/76</u>
	NAME	TITLE	DATE
NOTIFIED			
	NAME	TITLE	DATE
ISSUED BY	<u>P. J. P. P.</u>	<u>Site QAE</u>	<u>10/29/76</u>
	NAME	TITLE	DATE

PE QA REFERENCE ONLY
N 033 000 000 006
 DISTRIBUTION
 A. Teller - TLC
 P.L. Sauk
 PLS-6234

(Item 10)

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
ATOMIC SAFETY AND LICENSING BOARD
BEFORE ADMINISTRATIVE JUDGES:

Lawrence Brenner, Chairman
Dr. Richard F. Cole
Dr. Peter A. Morris

*P-2 to 35
for cascade
(re LEA
or
1-33-35
etc
Contentions*

In the Matter of

PHILADELPHIA ELECTRIC COMPANY

(Limerick Generating Station,
Units 1 and 2)

Docket Nos. 50-352-OL
50-353-OL

LBP-83-39

July 26, 1983

SECOND SPECIAL PREHEARING CONFERENCE ORDER

The Board held a special prehearing conference in Philadelphia on May 9-11, 1983, to discuss proposed contentions and further scheduling of these proceedings. On May 16, 1983, we issued a "Memorandum and Order Confirming Schedules Established During Prehearing Conference". Our order today provides further rulings on the basis of that special prehearing conference, including rulings on the admissibility of contentions and the provision of specific dates for schedules which were previously described only in terms of triggering events.

In its filings prior to the special prehearing conference and at the conference itself, LEA indicated that a number of contentions were being dropped. These are Contentions I-1; I-2; I-5; I-6; I-13; I-16(c) - (j); I-17; I-18; I-19; I-20; I-21; I-22; I-24; I-25; I-27; I-28; I-29; I-32; I-33A, C, F, G, H, I & L; I-34; I-35; I-36; I-37; I-39; I-43;

welds were reinspected. Given Applicant's asserted follow-up, however, it may be that Applicant's letter of December 15, 1976, only intended to report on reinspections performed by that time. If so, it would certainly have been useful for Applicant to have indicated in that response that further inspections and analyses would be performed.

~~7~~ ~~8~~ ~~9~~ ~~10~~
The Bechtel inspection reports do not by themselves make clear that the welds listed are those which had been inspected by the same inspector cited in NRC Staff inspection report 76-06, or that the other statements in counsel's letter are accurate descriptions of the reports (attachments 4-9). In addition, we have no sworn affidavit attesting to the fact that the structural analyses, showing the assumed absence of the embedded welds as acceptable, were performed. (The details of these structural analyses are beyond the scope of the contention that QA/QC follow-up action to this Staff inspection report was improperly limited to reinspection of accessible welds.) However, it presently appears from counsel's representations of facts that there is no basis to admit — even this part of AWPP's contention. We will not do so, subject to Applicant providing, as soon as practicable, appropriate affidavits of knowledgeable persons verifying the accuracy of the statements in its counsel's letter of May 20, 1983.

absence of proof
request for affidavit

Nothing in AWPP's letter to the Board of May 25, 1983, responding to Applicant's counsel's letter of May 20, 1983, remedies the fatal absence of bases for believing that Applicant limited its follow-up action to accessible welds.

AWPP seeks to conduct further discovery to better specify the contention. We have already permitted AWPP about a year to examine QA/QC documents and it has been unable to frame an admissible contention. Further discovery is unwarranted given AWPP's failure to specify with any reasonable particularity what it would seek to litigate within the broad area of QA/QC. The fact that AWPP has not received details of everything it might need to actually litigate a case at an evidentiary hearing does not excuse its failure now to state an admissible contention with reasonable specificity and basis.

For the reasons stated, this contention which had been conditionally admitted in an earlier form, subject to AWPP providing better specificity and basis, is rejected, subject to our acceptance of the affidavits to be filed by Applicant.

contention
is rejected
←

DISCOVERY

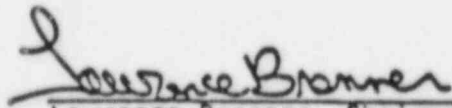
Discovery may begin immediately on contentions admitted by the Board in this order. All discovery requests must be served by October 14, 1983. Discovery is subject to the directions and time limits set forth in our Order of May 16, 1983.

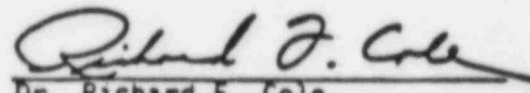
ORDER

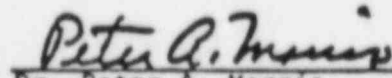
- 1) Contentions I-2, I-15 and I-33M are admitted for litigation. The litigation is to be within the scope described in this memorandum and order.
- 2) Contentions I-4, I-7, I-10, I-11, I-12, I-14, I-16a, I-16b, I-23, I-26, I-30, I-31, I-38, I-60, VI-1 (provided appropriate confirmatory affidavits are filed by Applicant), and the five new probabilistic risk assessment contentions are denied.
- 3) Discovery on the admitted contentions may start immediately and will follow our instructions set forth in this memorandum and order and our "Memorandum and Order Confirming Schedules Established During Prehearing Conference" (May 16, 1983).
- 4) Pursuant to 10 C.F.R. § 2.751a(d), parties normally may file objections (requests for reconsideration) to this Order with the Licensing Board within five days after service (ten days in the case of the Staff) of the Order. Parties may not file replies to the objections unless the Board so directs.

IT IS SO ORDERED.

ATOMIC SAFETY AND
LICENSING BOARD


Lawrence Brenner, Chairman
ADMINISTRATIVE JUDGE


Dr. Richard F. Cole
ADMINISTRATIVE JUDGE


Dr. Peter A. Morris
ADMINISTRATIVE JUDGE

Bethesda, Maryland
July 26, 1983

LAW OFFICES

CONNER & WETTERHAHN, P.C.

1747 PENNSYLVANIA AVENUE, N.W.

WASHINGTON, D.C. 20006

TROY B. CONNER, JR.
NARR J. WETTERHAHN
ROBERT M. SADER
THOMAS M. OLEON
ARCH A. MOORE, JR.
ROBERT M. PUEL
OF COUNSEL
*NOT ADMITTED IN D.C.

(202) 633-6200

CABLE ADDRESS: ATOMLAW

August 10, 1983

Item 11

Judge Lawrence Brenner
Atomic Safety and
Licensing Board
U.S. Nuclear Regulatory
Commission
Washington, D.C. 20555

Judge Richard F. Cole
Atomic Safety and
Licensing Board
U.S. Nuclear Regulatory
Commission
Washington, D.C. 20555

Judge Peter A. Morris
Atomic Safety and
Licensing Board
U.S. Nuclear Regulatory
Commission
Washington, D.C. 20555

In the Matter of
Philadelphia Electric Company
(Limerick Generating Station, Units 1 and 2)
Docket Nos. 50-352 and 50-353

Gentlemen:

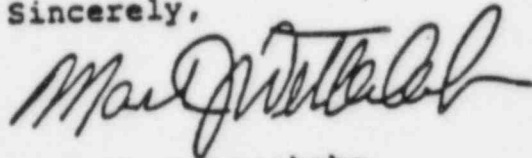
In the course of preparing to respond to the Atomic Safety and Licensing Board's request contained in its Second Special Prehearing Conference Order (LBP-83-39) dated July 26, 1983 at 38-39 for an affidavit to verify the statements contained in counsel's May 20, 1983 letter to the Licensing Board, it was learned that all inspections performed by the subject quality control inspector had not been identified and therefore not reinspected as previously believed.

The Applicant is reviewing the entire matter thoroughly, and will report to the Licensing Board as soon as possible. The affidavit of John S. Kemper, Vice President, Engineering and Research, setting forth the present status of the review is attached. We presently

Judge Lawrence Brenner
Judge Peter A. Morris
Judge Richard F. Cole
August 10, 1983
Page 2

expect to complete the review and report to the Board within
one month.

Sincerely,

A handwritten signature in dark ink, appearing to read "Mark J. Wetterhahn". The signature is fluid and cursive, with the first name "Mark" being more prominent.

Mark J. Wetterhahn
Counsel for the Applicant

MJW:sdd

cc: Service List

Enclosure

1/10/83

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
ATOMIC SAFETY AND LICENSING BOARD

BEFORE ADMINISTRATIVE JUDGES:

Lawrence Brenner, Chairman
Dr. Richard F. Cole
Dr. Peter A. Morris

Contention *woulding*

In the Matter of
PHILADELPHIA ELECTRIC COMPANY
(Limerick Generating Station,
Units 1 and 2)

Docket Nos. 50-352-OL
50-353-OL

October 28, 1983
~~October 28, 1983~~

MEMORANDUM AND ORDER
CONFIRMING RULINGS MADE AT PREHEARING CONFERENCE

The Board hereby confirms the rulings made on the record of the prehearing conference held on October 17 and 18, 1983, at Phoenixville, Pennsylvania.

Admissibility of Contentions

LEA I-41 (U.S.I. A-17 - systems interactions)

LEA Contention I-41(a) was admitted as respecified in LEA's filing of September 28, 1983. The contention is set forth with reasonable bases and specificity and is not otherwise legally barred. Tr. 4809-13. Subsection (b) was withdrawn. Tr. 4807-08.

AWPP VI-1 (quality assurance)

AWPP Contention VI-1 was partially admitted on reconsideration by the Board. It was reworded by the Board as follows:

Applicant has failed to control performance of welding and inspection thereof in accordance with quality control and quality assurance procedures and requirements, and has failed to take proper and effective corrective and preventive actions when improper welding has been discovered.

Tr. 4912-14.

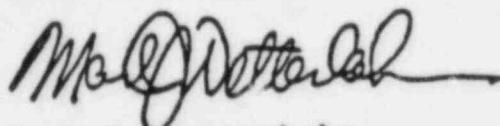
The Applicant and NRC Staff shall promptly make available, in the greater Philadelphia/King of Prussia area for inspection and copying by AWPP, all documents regarding welding pertinent to the Limerick facility. This includes documents in the possession of consultants, contractors or other agents utilized by the Applicant and Staff. The term "documents" includes, but is not limited to, reports of inspections and audits, whether internal or external, and related correspondence. Within thirty days of completion of discovery (including responses relevant to Contention VI-1), AWPP shall file a list of all instances of improprieties with regard to welding and/or inspection and correction thereof, which will form part of its case on the merits of the contention. For each instance listed, AWPP shall identify the particular portions of inspection reports or other documents which relate to such instance. AWPP shall also briefly state what it is about

Conclusion

For the reasons discussed above, the conditionally admitted contentions should be denied and no further consideration need be given to them at this time by the Licensing Board.

Respectfully submitted,

CONNER & WETTERHAHN, P.C.

A handwritten signature in dark ink, appearing to read 'Mark J. Wetterhahn', with a long horizontal flourish extending to the right.

Mark J. Wetterhahn
Counsel for Applicant

April 27, 1983

13

"Findings" attached to
Inspection Report 50-352-76-01
dated 10/13/76.

Contrary to the above, on September 15, 1976, concrete repair work above the personnel hatch of the containment drywell wall uncovered #9 and #14 parallel reinforcing steel tied together in direct contact at two places.

Following identification of this noncompliance by the inspector, the licensee site quality assurance organization immediately issued finding reports No. C-88 and C-89, which require evaluation and corrective action by the contractor. The licensee's response to a previous noncompliance regarding reinforcing steel clearances is documented in his August 27, 1975 letter to NRC.

- c. 76-09-03:Infraction: Failure To
Implement Nonconformance Control System For Loss of Concrete
Mix Proportion Control

Criterion XV of Appendix B of 10 CFR 50 requires that "Non-conforming items shall be reviewed and accepted, rejected, repaired, or reworked in accordance with documented procedures."

Criterion XVII requires that inspection and test records shall as a minimum identify the inspector or data recorder, the type of observation, the results, the acceptability and the action taken in connection with any deficiencies noted.

Bechtel Field Inspection Manual Procedure G-3 Rev. 6 requires that nonconformances shall be identified and reported in a controlled manner. It provides that use-as-is determinations require Project Engineer approval prior to implementation, and concurrence by the Project Field Quality Control Engineer. It requires documentation of engineering rationale where a use-as-is determination is made. It provides a standard Non-conformance Report for the mechanics of obtaining and documenting the above actions.

Contrary to the above, on September 16, 1976, the quality control inspection reports for June 23-24, 1976 concrete placement of the containment drywell walls did not reflect: (a) that concrete ingredient proportions were suspect for six truck loads of concrete, and may not have been within specifications; (b) that this situation had been reviewed by appropriate personnel; (c) that the concrete use-as-is decision was supported by engineering rationale; (d) that this matter was identified and reported in the controlled manner provided by the nonconformance report system.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Item-14

Before the Atomic Safety and Licensing Board

In the Matter of)	
Philadelphia Electric Company)	Docket Nos. 50-352
(Limerick Generating Station,)	50-353
Units 1 and 2))	

AFFIDAVIT OF VINCENT S. BOYER
SENIOR VICE PRESIDENT, NUCLEAR POWER
PHILADELPHIA ELECTRIC COMPANY

Vincent S. Boyer being first duly sworn according to law
deposes and states:

1. My name is Vincent S. Boyer. I am Senior Vice President,
Nuclear Power, of the Philadelphia Electric Company (Company).
In this position, I have overall responsibility for the nuclear
power activities of the Company, including the Limerick Generating
Station.

2. On August 10, 1983, John S. Kemper, Vice President,
Engineering and Research, executed an affidavit dealing with
the Company's continuing investigation to assure that welds
which in 1976 were the responsibility of a certain Quality
Control inspector had been reinspected or otherwise dispositioned.
The affidavit reflected the fact that the Company had discovered,
contrary to its previous belief, that not all such welds had been
identified. This affidavit provides a progress report on the
ongoing investigation and discusses the findings to date.

3. The Board's Special Prehearing Conference Order, LBP-82-43A, 15 NRC 1423, 1520-21 (June 1, 1982), provided for informal discovery. Pursuant to that Order, on September 3, 1982 the Air and Water Pollution Patrol (AWPP) requested certain documents relating to NRC Inspection Report 76-06. This request was designated "Discovery 2 (Enclosure 2)." As it relates to this matter, the following documents were requested:

"(7) Provide record of all welds accepted by inspector who accepted welds at elevation 253, columns 23G and H, and provide record showing percentage of welds inspected by inspector in (6) above that were re-inspected."

4. By letter dated January 11, 1983, the documents which had been identified as responsive to this request were made available to AWPP. These documents were later provided to the Board by counsel for the Company on May 20, 1983 pursuant to its Order Regarding Quality Assurance Documents (May 13, 1983). In order to understand the status of the Company's continuing investigation, it is necessary to discuss certain of the documents provided to AWPP and the Board. The same designation of attachments is used as was utilized in the May 20, 1983 letter.

5. A letter from V. S. Boyer to J. P. O'Reilly dated December 15, 1976, designated Attachment 2 stated that, with respect to the structural welds which were cited in NRC Inspection Report 76-06 the corrective action therein was as follows:

"1. The following corrective measures have been taken:

a. The fillet welds on structural steel beam connections at elevation 253, columns 23-G and H, have been repaired.

- b. The inspector, who originally accepted these two welds, is no longer employed by the contractor and a reinspection of all other work performed by him has been accomplished, where accessible. Of approximately 350 welds reinspected, two deficiencies were noted and corrective action has been taken."

6. The above-quoted statement was based upon a Bechtel response included as part of Attachment 4, Philadelphia Electric Company Quality Assurance Finding Report No. N-093 dated October 27, 1976. That response at Sheet 2 of 3 states that the following corrective action was taken to resolve the finding:

"A reinspection of all other work performed by the particular inspector who accepted the welds in question was accomplished wherever accessible."

That same page carries the handwritten notation that Bechtel Field Inspection Reports C-63-7 through C-63-19 (identified collectively as Attachment 6) provide the basis for the above quoted statement.

7. Additional welds which were the responsibility of the subject inspector were identified in early 1977. See Bechtel Field Inspection Reports Nos. C-63-20 and C-63-21, collectively identified as Attachment 7.

8. On April 5, 1977, Bechtel Field Inspection Report C-63-22 was initiated in order to redetermine the accessibility for inspection of the installed structural steel beams and columns previously identified in Attachments 6 and 7 to allow further reinspection and assure that all accessible welds were inspected. This Field Inspection Report is identified as Attachment 8.

9. Attachment 9 contains additional Bechtel Field Inspection Reports which were initiated to document further inspections which resulted from the preparation of Bechtel Field Inspection Report C-63-22 (Attachment 8).

10. Page 8 of 8 of Bechtel Field Inspection Report C-63-22 is a reconciliation of all Weld Inspection Plans that had been identified as the responsibility of the subject inspector against the Bechtel Field Inspection reports which indicated that such welds had been reinspected. It was thus concluded by Company personnel on the basis of the Bechtel reports that all welds which had been the responsibility of the subject inspector had been reinspected or analyzed, and a non-conformance report (NCR-2710 referenced in Attachment 9) dispositioned the inaccessible or deficient welds. *how?*

11. In preparing its response to the Licensing Board's Second Special Prehearing Conference Order, LBP-83-39, July 26, 1983, and to review independently the validity of the information contained in reports previously submitted to the Board and AWPP, the Company conducted a review of the original quality assurance welding records prepared during the term of employment of subject inspector at the facility. This review took approximately four weeks and 2500 manhours.

12. As a result of this extensive review, it was determined that the subject inspector had responsibility for a total of 709 safety related welds at the facility, of which 662 were structural welds and 47 were on components other than structural

steel, such as hangers (43), pipes (2), and electrical conduit supports (2). It was also determined that the review program which was initiated as a result of NRC Inspection Report 76-06 and completed by the end of July, 1977, resulted in 403 accessible welds having been reinspected with four minor deficiencies noted. Thirty-one welds remained inaccessible but were dispositioned. ?

13. The remaining 228 structural welds include 16 which are totally accessible and 212 which are partially or totally inaccessible. The 16 totally accessible welds have now been reinspected with one minor deficiency found. An engineering analysis is continuing to disposition the 212 partially or totally inaccessible welds and the one deficient accessible weld. This analysis is expected to be completed in approximately one month. The 47 non-structural welds are all totally accessible and have now been reinspected with 19 minor deficiencies found, all of which are hanger welds. Although these hanger weld deficiencies would be dispositioned normally as part of the final hanger completion and inspection program, they will instead be specially dispositioned within one month.

14. The Company's review of this matter is continuing. The program includes a further physical reinspection of a representative number of the welds for which the subject

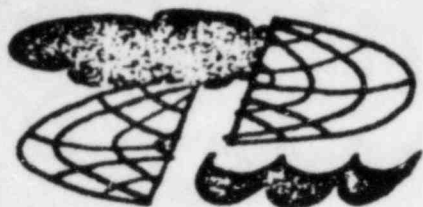
*what is representative number?
How many are there?
Who determines what is representative?*

inspector was responsible. There are initial indications,
not yet confirmed, that some additional deficiencies may
be present.

Vincent S. Boyer
Vincent S. Boyer

Sworn to me this 16TH date of September, 1983

James A. Louch
Notary Public
Notary Public, Philadelphia, Philadelphia Co.
My Commission Expires January 29, 1987

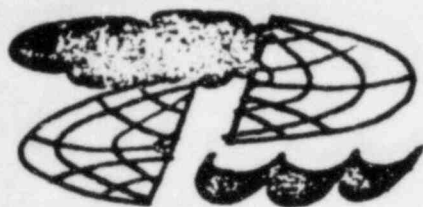


AIR and WATER
Pollution Patrol
BROAD AXE, PA.

DIRECTORY

Re First Set of AWPP
Interrogatories

- p-1 New Things
- p-2 Questions not answered
- p-3 Contradictions
- p-4 - " Confusion on number of wells by Boyer + employment status of Fenetti
- p-5 New Facts of Evidence
- p-6
- p-7 Central Ideas
- p-8
- p-9 Evasion of Interrogatories and misinformation in 1st, 3rd, 10th & 12th
set of interrogatories



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(1)

Re 1st Set of Awpp Interrogatories

New Things

- (a) All IE reports since contention was admitted
- (b) Material obtained during Discovery--like NRC #1980 with all its detail--add dates, different elevations
- (c) Pattern of predetermined response to infraction in the form of "use as is", and Rational--the weld is O.K. because it won't have to carry over 230 lbs NRC 1366 (give full non-conforming condition wordage)
Even a strong human being can support that weight!



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(2)

Questions Not Answered



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(3)

Contradictions

(a)

- (b) Re 353-76-01 Answer to 1st set (6) was that G.P. Auclair was a qualified welder.

Did Applicant mean G.A. Auclair was qualified to be welding the 76-06-01 welds in controversy? Do you mean G. P. Auclair was qualified by qualification test for the six different weld configurations to be welded at the limited access joints?

(c) 1st Set (8)

Applicant's Boyer and Corcoran re welding extension and understanding 76-06-01 say "any such equipment needed for use at Limerick would be procured from a vendor of such equipment" - well it was needed...why wasn't it available to the welders in the "broomstick affair". (also see p-9 in d)

(d)



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BROAD AXE, PA.

(5)

New Facts Or New Things

(a) See First page at (a) (b) (d)

17em 15

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Before the Atomic Safety and Licensing Board

In the Matter of
Philadelphia Electric Company
(Limerick Generating Station,
Units 1 and 2)

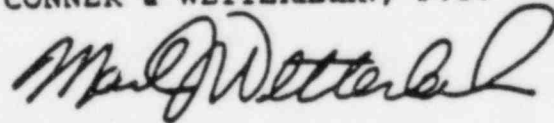
Oct 4/83
Docket Nos. 50-352
50-353

APPLICANT'S SECOND INTERIM REPORT TO
LICENSING BOARD RELATING TO CONTENTION VI-1

Applicant is hereby forwarding to the Licensing Board and parties the attached Affidavit of Vincent S. Boyer, Senior Vice President, Nuclear Power, Philadelphia Electric Company dated September 29, 1983. This report updates Mr. Boyer's affidavit dated September 16, 1983 which was transmitted to the Board and parties by Applicant's Interim Report to the Licensing Board Relating to Contention VI-1 of the same date.

Respectfully submitted,

CONNER & WETTERHAHN, P.C.



Mark J. Wetterhahn
Counsel for Philadelphia
Electric Company

October 4, 1983

structural steel, such as hangers (577), pipes (2), and electrical conduit supports (2).

13. It was also determined that the review program which was initiated as a result of NRC Inspection Report 76-06 and completed by the end of July, 1977 had identified 426 structural welds, 423 being accessible and 3 inaccessible. The 423 accessible welds were reinspected with 6 minor deficiencies noted. Four of these were reworked, and 2 were found acceptable by engineering analysis. The 3 inaccessible welds were found by engineering analysis to be acceptable.

The extensive August, 1983 review identified 228 additional structural welds, 16 being totally accessible and 212 partially or totally inaccessible. The 16 totally accessible welds have now been reinspected with one minor deficiency found. This weld, together with the 212 partially or totally inaccessible welds, have been found by engineering analysis to be acceptable.

The non-structural welds, totalling 581, are all totally accessible. Of these, 577 represent hanger welds with 534 of the 577 being welds of hangers which were completely reinspected prior to August, 1983 as part of a separate hanger inspection program. The remaining 43 hanger welds for which final inspections had not yet been made, together with the 4 non-hanger welds, have now been reinspected. These hangers contained 19 minor deficiencies which would have normally been dispositioned as part of the final hanger completion and inspection program. They, instead, will be specially dispositioned within one week.

unacceptable /
exp/analysis

3. The number of structural welds previously reported was reduced from 662 to 654 due to the elimination of 8 welds which, in 1976, were classified as safety-related welds but due to their location and function, were subsequently reclassified as non-safety related welds.

4. In the interest of reporting all possible safety-related welds which could be considered to be the responsibility of the subject inspector, a number of welds which were initially examined by him, but which were subsequently reinspected for programmatic reasons beginning in late 1980, are being included. This explains the increase, noted above, in the number of safety-related non-structural welds from 47 to 581. In December, 1980 a general hanger reinspection program was initiated due to job conditions which resulted in additional hanger work being required after partial inspections had been performed. This reinspection program required a final QC inspection of all welds of all safety-related hangers regardless of their previous inspection status. The subject inspector had made inspections of 534 welds on partially completed hangers which had subsequently been subject to modification and completely reinspected prior to August, 1983. A current reinspection by Philadelphia Electric Company of 60 of these 534 completed hanger welds was performed with one minor deficiency being detected which has been found by engineering analysis to be acceptable.

5. The reported numbers relating to the review program of safety-related structural welds completed by the end of July, 1977 are changed due to the initial inclusion of non-safety grade welds in the inaccessible count and a corresponding error in the breakdown

of the number of accessible and inaccessible welds. The corrected count is that by the end of July, 1977, 423 accessible welds were reinspected (corrected from 403) and 3 inaccessible welds (corrected from 31) were identified and dispositioned satisfactorily where required.

6. The Company's physical reinspection program, as reported in paragraph 14 of the September 16, 1983 affidavit, involved further physical reinspection of 67 safety-related structural welds. Fifteen of these were from the 1983 reinspection group of 16 accessible welds discussed in paragraph 13 of the September 16, 1983 affidavit and 52 were from the 1976/77 reinspection group of 423 accessible welds. Six deficiencies were identified from the latter group, and these have been found by engineering analysis to be acceptable.

Of course!

Vincent S. Boyer
Vincent S. Boyer

Sworn to me this 29th date of SEPTEMBER, 1983

Patricia D. Scholl
Notary Public

PATRICIA D. SCHOLL
Notary Public, Philadelphia, Philadelphia Co.
My Commission Expires February 10, 1986

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

Before the Atomic Safety and Licensing Board

In the Matter of
Philadelphia Electric Company
(Limerick Generating Station,
Units 1 and 2)

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Docket Nos. 50-352
50-353

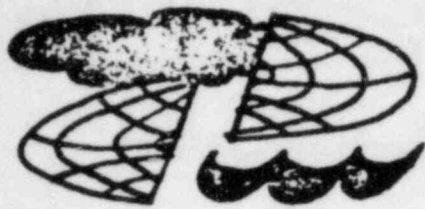
AFFIDAVIT OF VINCENT S. BOYER
SENIOR VICE PRESIDENT, NUCLEAR POWER
PHILADELPHIA ELECTRIC COMPANY

Vincent S. Boyer being first duly sworn according to law
deposes and states:

1. On September 16, 1983, I executed an affidavit which was submitted to the Atomic Safety and Licensing Board dealing with the Company's review of welds which in 1976 were the responsibility of a certain Quality Control inspector. That affidavit indicated that the review was continuing. The purpose of this affidavit is to update and correct information previously reported.

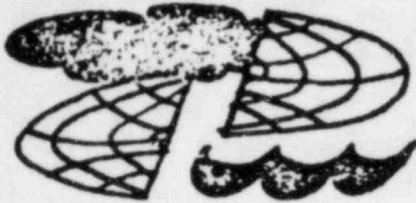
2. To reflect the current status of the review, paragraphs 12 and 13 of the September 16, 1983 affidavit would be modified as set forth below with the reasons for these changes being discussed herewith and in subsequent paragraphs.

12' As a result of this extensive review, it was determined that the subject inspector had responsibility for a total of 1235 safety-related weld inspections at the facility, of which 654 were structural welds and 581 were on components other than



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BROAD AXE, PA.
(7)

Central Ideas

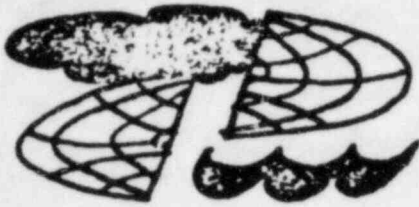


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Pollution Patrol
BROAD AXE, PA.

Directory - - page 9 subject

Evasion Of Interrogatories and Misinformation in Answers
To First Set Of Interrogatories

- (a) Ist set (6)
Applicant evades other welders who used unqualified extensions - by referring only to G.P. Auclair. But according to line 2,3, 2nd par. under 76-06-01, it is stated: "nor had the welder been qualified using such extensions. (broomstick)"
- (b) Applicant evades the gist of the question which is that there possibly were other "broomstick" incidents by other welders. Where and who?
- (c) Ist set (7)
Applicant says 76-06-01 involved two beam connections as area 13 at E1, 253. However, 76-06-01 under "Failure to weld Structural Steel as per AWS Code" states broomstick affair involved welds at E1, 283 - and E1 253. That involves more than two welds
- (d) Ist set (9)
Applicant's Boyer, Corcoran, Clohecy - evaded the Interrogatory re Applicant's disagreement over inspectors request for "visual inspection of the limited access welds performed at elevation 253 on steel beam piece numbers 232B7. They evade it by saying, they, quote: "disagree with AWPP's characterization of the Inspection Report identified in this Interrogatory". (76-06-01)



**AIR and WATER
Pollution Patrol**
BROAD AXE, PA.

(9a)

(d) continued:

But under 76-06-01: Failure to Weld Structural Steel as per AWS Code: The inspector considered that an electrode holder attached to a stick did not meet this requirement unless proven satisfactory by qualification tests for the six different weld configurations to be welded at the limited access joints.

Further, re Interrogatory #9, Applicant said what J.M. Corcoran disagreed about was the need for certain qualification tests (what tests) Part 3.1.2 requires proper equipment in order to insure results prescribed in AWS Code. While the Applicant stated AWPP mischaracterized the disagreement, the NRC inspector concluded: The welds were found to not comply with the requirements of AWS-D-1-1 Section 3 "Workmanship," in that the welds were of Unacceptable profile, contained excessive undercut, and were incomplete at the upper and lower edge of the angle clip (root pass complete, only). For the weld joints designated #3 in the record drawing of the in-process checklist, all inspection items had been checked-off by the Bechtel quality control inspector, including "Final Quality Verification." The QC inspection apparently did not comply with the requirements of AWS-D-1-1 Section 6 "Inspection." On Friday, March 2, 1984 Applicant's Mr. Wetterhahn on a

Submitted
with answer
to [unclear]
interview [unclear]

Item 1
2

ATTACHMENT 1

Letter from R. T. Carlson to V. S. Boyer, dated 11/10/76,
transmitting NRC IE Inspection Report No. 50-353/76-06

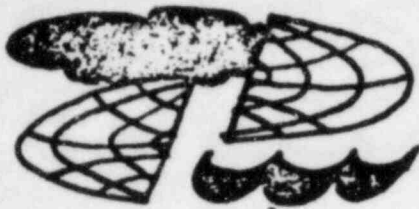


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BROAD AXE, PA.

(9b)

telecon including Staff's Ann Hodgdon suddenly on opening the conversation stated that V.C.Ferretti (of the 76-06-01 broomstick affair) quote:"Was not fired"--as if making a confession to evasive wording of Applicant's answers to AWPP's 12th set, interrogatory 7k of Jan 14, 1984

The evasion is evident in its answer to Interrogatory No. 11 of AWPP's First set of Interrogatories dated Nov. 11, 1983, as to the name of the inspector involved in the 76-06-01 falsification of welding records, and specifically,"was inspector (who falsified welding records in the 76-06-01 affair) separated from employment from Bechtel and/or Applicant in 1976? Applicant answered that the inspector was V.C. Ferretti, who was employed by Bechtel Power Corp. until his separation in 1976. Now Applicant's counsel, four months later, blurts out "Ferretti was not fired"--thus throwing me off Mr. Ferretti's trail, including the certainty of deposing him. This is another reason for extending discovery.



AIR and WATER
Pollution Patrol
BROAD AXE, PA.

EVASION OF INTERROGATORIES AND MISINFORMATION IN ANSWERS
TO TENTH SET OF INTERROGATORIES

- (a) Applicant on page 4 of Discovery 25 dated Feb. 1, 1984 evades Interrogatory 2a of AWPP's 10th Interrogatory-- Applicant does not state the procedure that came up with 709 number of welds.
- (b) Applicant on page 5 evades question 2b. Why so unsure?



AIR and WATER
Pollution Patrol
BROAD AXE, PA.

EVASION OF INTERROGATORIES AND MISINFORMATION IN ANSWERS
TO THIRD SET OF INTERROGATORIES

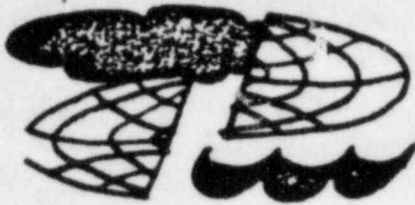
- (a) In Answer to interrogatory No. 3 of AWPP's 3rd Set of Interrogatories dated Nov. 23, 1983 which asks "Indicate name of welders who more than one time, were involved in reported deficient welds, and who never the less were not discharged or separated from work at Limerick" Applicant states at p.6 of Discovery 17, of 12/19/83 that "Therefore, not all welders who performed deficient welds, identified by the NRC as welding infractions, have been identified".
- And on the same page Applicant states welders involved with unacceptable welding performance or non-adherence to specified welding procedures are retrained they are not necessarily discharged.



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EVASION OF INTERROGATORIES AND MISINFORMATION IN ANSWERS
TO TWELTH SET OF INTERROGATORIES

- (a) The 16 accessible welds referred to in par 13 of Oct. 4, 1983 Affidavit were previously O.K'd...but now one deficiency is found on re-inspection. If one out of 16 is characteristic (or even one out of 32 on re-inspection is found to have a deficiency, that 's 3%. 3% of the thousands of welds would be unacceptable, that's why 76-06-01 is a warning that there are other more serious welding deficiencies.
- (b) As per paragraph 6 page 4 of Boyer's Sept. 29, 1983 Affidavit there were 423 welds, but Applicant's answer to 7g of 12th Interrogatory is stated as 439.
- (c) As to 7h of AWPP 12th Interrogatory Applicant does not answer ...Applicant merely says PECO just decided what to check with no concern to meet statistical procedures re validity of results.
- (d)



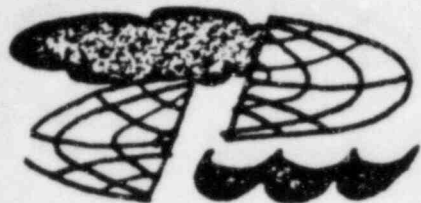
AIR and WATER Pollution Patrol BROAD AXE, PA.

Confusion on Number of Welds, and Employment Status of Inspector Involved In 76-06-01 Broomstick Affair

- (a) The Dec. 15, 1976-Vincent Boyer letter to Mr. James O' Reilley stating "the inspector involved (in 76-06-01) is no longer employed by the Contractor". Further, Mr. Boyer informed that in the re-inspection of the welds inspected by the inspector no longer employed, approximately 350 welds were re-inspected.
- (b) The Sept. 16, 1983 Affidavit of Vincent S. Boyer submitted to the Atomic Safety & Licensing Board, at 11 & 12, referred to "original quality assurance welding records prepared during the term of employment of subject inspector (76-06-01) at the facility (Limerick), and after extensive review it was determined the subject inspector had responsibility for a total of 709 safety related welds.

Two weeks later, on September 29, 1983, Vincent S. Boyer submitted another affidavit to the Atomic Safety and Licensing Board stating at 12' under 2: "As a result of this extensive review it was determined that the subject inspector (re 76-06-01 and ostensibly fired) had responsibility for a total of 1235 safety-related weld inspections at the facility..." (Parenthesis by AWPP).

The above confusion is an example of breakdown in Quality Assurance that makes it apparently possible to exist more times than is brought to the surface.



AIR and WATER Pollution Patrol BROAD AXE, PA.

Confusion on Employment Status of Inspector Involved In 76-06-01 Broomstick Affair

- (a) The Dec. 15, 1976--Vincent Boyer letter to Mr. James O'Reilley stated "the Inspector involved (in 76-06-01) is no longer employed by the Contractor".
- (b) In Applicant's Dec. 5, 1983 Answer to AWPP's First Set of Interrogatories at no. 11, Applicant again states the inspector involved in the 76-06-01 broomstick affair "was employed by Bechtel Power Corporation until his separation in 1976".
- (c) Finally on March 2, 1984 Applicant's Mr. Wetterhahn on a telecon with Staff's Ann Hogdon suddenly on opening the conversation stated that "inspector involved in the 76-06-01 "broomstick affair" was not fired , as if making a confession.
Certainly if the broomstick affair inspector was "not fired" after his responsibility in the infraction described in 76-06-01, the Applicant, the Contractor and the NRC were blatantly negligent.