

September 4, 1984

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

DOCKETED
USNRC

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

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Docket Nos. 50-352 OL
50-353 OL

'84 SEP -5 P2:26

OFFICE OF SECRETARY
DOCKETING & SERVICE
BRANCH

NRC STAFF RESPONSE TO AIR AND WATER POLLUTION
PATROL'S "FURTHER SUPPORT FOR REOPENING CONTENTION VI-I
RE WELDING AND WELDING INSPECTION INFRACTIONS AT LIMERICK"

I. INTRODUCTION

On August 14, 1984, Air and Water Pollution Patrol ("AWPP") served a pleading dated August 13, 1984, entitled "AWPP Provides Further Support for Reopening Contention VI-I re Welding and Welding Inspection Infractions at Limerick." The apparent intent of AWPP's "Further Support" motion is to bolster the post-hearing motions filed by AWPP on June 8 and June 11, 1984. However, those motions were denied by the Licensing Board in its Partial Initial Decision of August 29, 1984.^{1/} Thus, since the instant filing is an attempt to supplement motions that have been denied, it is now moot. Nevertheless, the Staff, because of AWPP's status as a pro se intervenor, hereby responds to AWPP's "Further Support," treating it as a motion to reopen the record on AWPP's Contention VI-I. For the reasons discussed below, the Staff believes the Board should deny the motion.

^{1/} Philadelphia Electric Company (Limerick Generating Station Units 1 and 2), LBP-84-31, 20 NRC ____ (August 29, 1984), Slip op. at 106-108.

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II. BACKGROUND

The background of the Board's admission of AWPP's Contention VI-I regarding welding and welding quality assurance is set out in the Second Partial Initial Decision at pages 99-100 and need not be repeated here. Also, in its P.I.D. the Board recited in its findings that it had been the Board's judgment at the conclusion of the hearing on Contention VI-I that there were no facts upon which it could be concluded that the Applicant had not overwhelmingly met its burden of proof on the contention and that AWPP's contention lacked merit.^{2/}

After explaining the basis for its rejection of AWPP's proposed findings, the Board addressed the post-hearing motions filed by AWPP on June 8 and June 11, 1984, by which AWPP sought to reopen the record on the basis of a post-hearing NRC inspection report regarding pipe support hangers and to withhold a final decision on AWPP Contention VI-I pending the outcome of an NRC staff inspection at the Limerick site announced in a letter from the Staff to the Applicant, dated June 4, 1984. The Board denied both motions, the first as being unrelated to the contention that was litigated and the second as not having satisfied -- or even addressed -- the standards for reopening the record.^{3/}

^{2/} LBP-84-31, Slip op. at 101.

^{3/} LBP-84-31, Slip op. at 106-108.

III. DISCUSSION

The instant motion suffers from the same flaws addressed by the Board in its denial of AWPP's motions of June 8 and June 11, 1984: (1) it does not satisfy -- or even address -- this Commission's standards for reopening a closed record and (2) its basis is unrelated to welding quality assurance and is therefore irrelevant to the contention.

With regard to the first defect, AWPP's failure to address the standards for reopening a closed record, the standards applicable to a motion to reopen a record are: 1) that the motion be timely, 2) that the movant demonstrate that the new evidence on which reopening is sought relates to a significant safety or environmental question and 3) that the movant show that the new evidence might materially affect the outcome.^{4/}

AWPP has not addressed these standards. The Staff, nonetheless, addresses the standards of the Wolf Creek/Diablo Canyon test as they apply to AWPP's motion. With regard to the first standard, as AWPP's motion of August 13, 1984 relates to a letter of August 3, 1984, it cannot be said to be untimely. Consideration of the other two standards, however, clearly weighs against reopening the record. As regards the second standard, the information on which AWPP seeks to reopen the record does not relate to a significant safety matter. Indeed, there is no showing that it relates to matters that were litigated by AWPP. Mr. Martin's letter^{5/} on which AWPP

^{4/} Pacific Gas and Electric Company (Diablo Canyon Nuclear Power Plant, Units 1 and 2), ALAB-728, 17 NRC 777, 800 n.66 (1983); Kansas Gas and Electric Company (Wolf Creek Generating Station, Unit 1), ALAB-462, 7 NRC 320 (1978).

^{5/} The Staff has attached a copy of Mr. Martin's letter as Enclosure A.

relies as support for its motion, relates to ASME Code interpretation (See 10 C.F.R. § 50.55a); it does not relate to quality assurance. The subject of Mr. Martin's letter is Inspection No. 50-352/84-29; a report on that inspection has not yet been issued. Therefore, AWPP has no basis for stating that the Preservice Non-destructive Examination found "lack of fusion" in safety related pipe welds, as the results of that inspection are not yet available. Further, AWPP also refers to a letter from Mr. J. Kemper to A. Schwencer, dated June 6, 1984, in which the Applicant requested relief from certain ASME code requirements pursuant to 10 C.F.R. § 50.55a. However, the substance of the letter has been superseded by subsequent letters in which the Applicant has sought to justify and has subsequently withdrawn the request for relief. (Enclosures B, C, D and E).^{6/} Therefore, the "new evidence" has become moot because of subsequent events. As regards the third standard, the effect the new evidence might have on the outcome, the "new evidence" is simply not related to the contention that was litigated. Therefore it is difficult to see how consideration of that evidence would have had any effect on the outcome of the decision on AWPP's Contention VI-1.

^{6/} As AWPP has not attached to its motion the documents on which it relies for support, the Staff is supplying copies of these documents. Enclosure B is Mr. Kemper's letter to Mr. Schwencer, dated June 6, 1984; Attachment 1 to that letter, setting forth the Applicant's program for requesting relief under § 50.55a, is supplied in its entirety; only two pages of Attachment 2, relating to the relief request that AWPP questions, are included. Enclosure C is Mr. Kemper's letter to Mr. Schwencer dated July 17, 1984; Attachment 1 to that letter is supplied in its entirety; the Attachment 2 enclosure is limited to the pages that address the relief requests at issue here. Enclosure D is a letter of August 7, 1984, from Mr. Kemper to Mr. Schwencer, supplementing the relief requests. Enclosure E is Mr. Kemper's letter of August 30, 1984, withdrawing the requests for relief.

In sum, had it addressed the reopening standards, AWPP could have demonstrated timeliness but could not have demonstrated the significance of its new evidence. Further, since the information is not relevant to AWPP's Contention VI-I, the showing of mere timeliness, absent a showing of significance and relevance is not persuasive.

Therefore, the Staff's opinion is that even disregarding the fact that AWPP's information is now moot, that information does not constitute the kind of evidence on which this Board should grant a motion to reopen the record in this proceeding.

IV. CONCLUSION

As discussed above, the Board should deny AWPP's motion to reopen the record.

Respectfully submitted,

Ann P. Hodgdon

Ann P. Hodgdon
Counsel for NRC Staff

Dated at Bethesda, Maryland
this 4th day of September, 1984

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of
PHILADELPHIA ELECTRIC COMPANY
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Docket Nos. 50-352 OL
50-353 OL

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'84 SEP -5 P2:26

OFFICE OF SECRETARY
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CERTIFICATE OF SERVICE

I hereby certify that copies of NRC STAFF RESPONSE TO AIR AND WATER POLLUTION PATROL'S "FURTHER SUPPORT FOR REOPENING CONTENTION VI-I RE WELDING AND WELDING INSPECTION INFRACTIONS AT LIMERICK" in the above-captioned proceeding have been served on the following by deposit in the United States mail, first class, or as indicated by an asterisk through deposit in the Nuclear Regulatory Commission's internal mail system, this 4th day of September, 1984:

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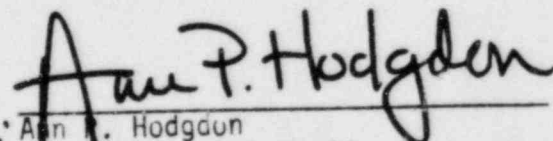
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ENCLOSURE A

AUG 03 1984

Docket No. 50-352

Philadelphia Electric Company
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USNRC

'84 SEP -5 P2:26

OFFICE OF RECORDS
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Gentlemen:

Subject: NDE Van Inspection Finding

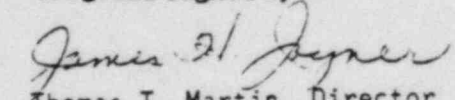
Reference: Region I Inspection 50-352/84-29

The purpose of this letter is to document our concerns regarding the timely resolution of the NDE Van inspection findings relating to pipe weld "lack of fusion" indications identified during your ASME Code, Section XI, preservice examinations at Limerick, Unit No. 1. This matter was discussed in a telephone conversation with Messrs. J. Durr and R. Gallo of the Region I staff and yourself on July 31, 1984.

Your request for relief from the requirements of the ASME Code, Section XI, identified in Attachment 2, paragraphs 19 and 20, of your letter, J. Kemper to A. Schwencer, dated June 6, 1984, appears to be inappropriate. It is our understanding that preservice examinations were made while the piping systems were still under the jurisdiction of ASME Code, Section III. Defects in piping identified during construction must be dispositioned in accordance with the governing construction code. We have contacted the cognizant Nuclear Reactor Regulation review office for this matter and further review of your relief request will be made pending resolution of this matter.

We request that a meeting of our staffs be held in the Region I office during the week of August 6, 1984, to resolve this matter as quickly as possible. Contact Jacque P. Durr, 215-337-5282, of my staff for coordination of the meeting details.

Original Signed By:


Thomas T. Martin, Director
Division of Engineering and
Technical Programs

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Philadelphia Electric Co.

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Washington, D.C. 20555

Docket Nos.:

⁸⁴ 50-352 SEP-5 P2:26
50-353

OFFICE OF SECRETARY
DOCKETING & SERVICE
BRANCH

Subject: Limerick Generating Station, Units 1&2
Additional Information for Materials
Engineering Branch (MTEB) Regarding SER
Confirmatory Issue #12: Preservice Inspection
(PSI) Program

Attachments: 1. Limerick Unit 1 PSI Relief Request
Submittal Program
2. Limerick Unit 1 PSI Relief Requests
(Draft)

File: GOVT 1-1 (NRC)

Dear Mr. Schwencer:

We are pleased to submit the following information to support the resolution of SER confirmatory issue #12 regarding the Limerick Unit 1 PSI program.

Attachment (1) provides a descriptive summary of the Limerick Unit 1 PSI relief request submittal program.

Pursuant to the provisions of 10CFR50.55a(g) and consistent with our commitment made in response to RAI-250.5 (FSAR Rev. 30), Attachment (2) is provided to identify ASME Section XI code categories for which reliefs of impractical PSI examinations are requested for reactor pressure vessel and piping components.

The balance of the material described in Attachment (1), including supporting technical justifications for the relief requests, will be submitted by June 30, 1984. Should any additional information be required, please do not hesitate to contact us.

Sincerely,

John S. Kemper
for
J.S. Kemper

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PDR ADOCK 05000352
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cc: See Attached Service List

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Judge Peter A. Morris (w/o enclosure)

Attachment 1

Limerick Generating Station, Unit 1 Preservice Inspection Relief Request ASME B&PV Code, Section XI

Submittal Program

1. Introduction

- 1.1 The following provides our plan for submitting relief requests for those Unit 1 Reactor Pressure Vessel (RPV) and piping components that could not be fully examined to the requirements of the ASME Boiler and Pressure Vessel Code, Section XI, Rules for Inservice Inspection of Nuclear Power Plant Components.

2. Scope

- 2.1 Requests for relief for limited preservice examinations of the RPV pressure retaining and support components are applicable to the requirements of the 1980 Edition of Section XI, as modified by the Addenda through the Winter 1980.
- 2.2 Requests for relief for limited preservice examinations of the pressure retaining and support components of piping, vessels, pumps, and valves are applicable to the requirements of the 1974 Edition of Section XI, as modified by the Addenda through the Summer 1975, Appendix III of the Winter 1975 Addenda and paragraph IWA-2232 of the Summer 1976 Addenda.
- 2.3 The requirements of Subsections IWP and IWV, pump and valve operability testing, are not included in the scope of this document.

3. References

- 3.1 Final Safety Analysis Report, Limerick Generating Station, Units 1 & 2
- 3.2 Safety Evaluation Report, related to the operation of Limerick Generating Station, Units 1 & 2, August 1983
- 3.3 ASME Boiler & Pressure Vessel Code, Section XI
 - 3.3.1 1980 Edition as modified by the Addenda through the Winter 1980.
 - 3.3.2 1974 Edition as modified by the Addenda through the Summer 1975, Appendix III of the Winter 1975 Addenda and paragraph IWA-2232 of the Summer 1976 Addenda.

- 3.4 General Electric (GE) Document LIM-PIP-1, Preservice Inspection Program Plan for the Reactor Pressure Vessel, Limerick Unit No. 1
 - 3.4.1 GE Dwg. 160-83B-18, Sheets 1-4, Weld Identification (RPV)
- 3.5 Nuclear Energy Services (NES) Document 80A1556, Limerick Generating Station, Unit 1, Preservice Inspection Program Plan for Nuclear Piping Systems

4. Description

- 4.1 Limited RPV examinations are documented in Relief Requests 1 through 5 and Attachment #7 of the USNRC Regulatory Guide 1.150 "Report of Unexamined Volume".
 - 4.1.1 Relief Requests 1 through 5 include:
 - 4.1.1.1 A summary of the Code requirements for the preservice examination of a particular group of RPV components. Generally there is one Relief Request per Code Item No. of Table IWB-2500-1.
 - 4.1.1.2 The particular Code requirement from which relief is requested.
 - 4.1.1.3 Identification of the RPV component(s) included in each Relief Request.
 - 4.1.2 Attachment #7, Report of Unexamined Volume includes:
 - 4.1.2.1 A list of the RPV welds that were examined including a description of the limited examinations and the obstruction causing the limitation.
 - 4.1.2.2 A description of the examination technique used for each weld (manual vs. remote automatic) and the coverage provided by each technique.
 - 4.1.2.3 Calculations of the areas examined and not examined.
 - 4.1.2.4 A graphic representation of the areas in 4.1.2.2 and 4.1.2.3 above.

4.2 Limited piping component examinations are documented in Relief Requests 6 through 20, the Component Summary Table and the Safety Impact Summary.

4.2.1 Relief Requests 6 through 20 include:

4.2.1.1 A summary of the Code requirements for the preservice examination of a particular group of piping components. Generally, there is one Relief Request per Code Item No. of Tables IWB-2600 and IWC-2600. (More than one Relief Request is possible if there is a difference in the particular Code requirement from which relief is requested.)

4.2.1.2 The particular Code requirement from which relief is requested.

4.2.1.3 Identification of the number of piping components included in each Relief Request.

4.2.1.4 Technical justification for granting relief.

4.2.2 Component Summary Table includes:

4.2.2.1 The identity of each pipe component for which relief is requested. Components are listed on the Component Summary Table in the same order that they are listed in NES document 80A1558 (Reference 3.5). The Table includes:

- Component identification number.
- Isometric drawing number.
- Code Item No. & Category.
- Description of the physical configuration.
- Incomplete Examination Analysis Report Number.
- Description of the obstruction limiting the examination.
- Identification of the examinations that were limited and to what extent.
- Safety Impact Category Number.
- Relief Request Number.

4.2.3 Safety Impact Summary includes:

4.2.3.1 A brief description of the Plant requirements based on a postulated complete failure of each piping component that was not completely examined.

5. Submittal

5.1 Submittal of the request for relief is provided for resolution of SER confirmatory Item #12 as detailed in our response to NRC RAI 250.5.

5.1.1 A draft of the Relief Requests, Items 4.1.1 and 4.2.1, identifying the Code Categories from which relief is expected to be requested, is submitted as Attachment (2).

5.1.2 The balance of the material will be submitted by June 1984. This will include:

5.1.2.1 Final Relief Requests with supporting Technical Justification (Items 4.1.1 & 4.2.1)

5.1.2.2 USNRC Regulatory Guide 1.150 Report with Attachment #7 (Item 4.1.2)

5.1.2.3 Component Summary Table (Item 4.2.2)

5.1.2.4 Safety Impact Summary (Item 4.2.3)

Limerick Generating Station, Unit 1
Preservice Inspection Relief Request
ASME B&PV Code, Section XI

DRAFT

19. Class 1 Pressure Retaining Welds in Piping
Code Item No. B4.5, Category B-J

Code Requirement:

Those pipe longitudinal and circumferential pressure retaining welds included in Code Category B-J of Table IWB-2500 shall be volumetrically examined per Item B4.5. Indications (recorded and sized at 50% DAC) shall be evaluated using the acceptance standards specified in the 1974 Edition of Section III, subsubarticle NB-5330 per subarticle IWA-3100(b).

Relief Request:

Relief is requested from performing the evaluation of 7 longitudinal welds, identified as RRA-027LD Max./Min., RRA-028LU Max./Min., RRA-037LD Max., RRA-038LU Max., RHB-005LD Max., and 1 circumferential weld identified as FWB-028, using the acceptance standards specified in NB-5330. These welds are included in the Component Summary Table. Supplemental evaluations using the acceptance standards specified in the 1980 Edition of Section XI as modified by the Addenda through the Winter 1981 shall also be submitted.

Justification:

DRAFT

Limerick Generating Station, Unit 1
Preservice Inspection Relief Request
ASME B&PV Code, Section XI

20. Class 2 Pressure Retaining Welds in Piping
Code Item No. C2.1, Categories C-F and C-G

Code Requirement:

Those pipe circumferential butt welds included in Code Categories C-F and C-G of Table IWC-2520 shall be volumetrically examined per Item No. C2.1 of Table IWC-2600. Indications (recorded and sized at 50% DAC) shall be evaluated to the acceptance standards specified in the 1974 Edition of Section III, subsubarticle NC-5330 per subarticle IWA-3100(b).

Relief Request:

Relief is requested from performing the evaluation of 3 welds, identified as RHB-194, RDA-019, and RDB 011, using the acceptance standards specified in NC-5330. These welds are included in the Component Summary Table. Supplemental evaluations using the acceptance standards specified in the 1980 Edition of Section XI as modified by the Addenda through the Winter 1981 shall also be submitted.

Justification:

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JOHN S. KEMPER
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ENGINEERING AND RESEARCH

July 17, 1984

Mr. A. Schwencer, Chief
Licensing Branch No. 2
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555Docket Nos.: 50-352
50-353Subject: Limerick Generating Station, Units 1 and 2
Information for Materials Engineering Branch (MTEB)
Regarding SER Confirmatory Issue #12: Preservice
Inspection (PSI) Program.References: 1. Telecon between M. Hum (NRC/MTEB) and
J. Arhar/D. Schmidt (PECO), 6/27/84.
2. Letter, J. S. Kemper/J. W. Gallagher (PECO)
to A. Schwencer (NRC), 6/6/84.Attachments: 1. Limerick Unit 1 PSI Relief Request Submittal
Program.
2. Limerick Unit 1 PSI Relief Requests.
3. General Electric's "USNRC Regulatory
Guide 1.150 Report, Limerick Unit #1".
4. Component Summary Table.
5. Safety Impact Summary.

File: GOVT 1-1 (NRC)

Dear Mr. Schwencer:

As discussed in the reference (1) telecon, we are pleased to provide the above attachments for your review in order to close out SER confirmatory issue #12 concerning the Limerick Unit 1 PSI program.

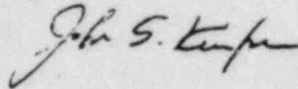
Attachment (1) provides a descriptive summary of the Limerick Unit 1 PSI relief request submittal program.

Pursuant to the provisions of 10CFR50.55a(g) and consistent with our commitment made in response to RAI 250.5 (FSAR Rev. 30), Attachments (2) through (5) provide the requested information regarding relief requests of impractical PSI examinations for the Unit 1 reactor pressure vessel and piping components. Reference (2) provided a draft version of Attachment (2).

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Should any additional information be required, please do not hesitate to contact us.

Sincerely,

A handwritten signature in cursive script, appearing to read "John S. Temple".

JHA/gra/06288402

cc: See Attached Service List

cc: Judge Lawrence Brenner	(w/o enclosure)
Judge Richard F. Cole	(w/c enclosure)
Troy B. Conner, Jr., Esq.	(w/o enclosure)
Ann P. Hodgdon, Esq.	(w/o enclosure)
Mr. Frank R. Romano	(w/o enclosure)
Mr. Robert L. Anthony	(w/o enclosure)
Charles W. Elliot, Esq.	(w/o enclosure)
Zori G. Ferkin, Esq.	(w/o enclosure)
Mr. Thomas Gerusky	(w/o enclosure)
Director, Penna. Emergency Management Agency	(w/o enclosure)
Angus R. Love, Esq.	(w/o enclosure)
David Wersan, Esq.	(w/o enclosure)
Robert J. Sugarman, Esq.	(w/o enclosure)
Spence W. Perry, Esq.	(w/o enclosure)
Jay M. Gutierrez, Esq.	(w/o enclosure)
Atomic Safety & Licensing Appeal Board	(w/o enclosure)
Atomic Safety & Licensing Board Panel	(w/o enclosure)
Docket & Service Section	(w/o enclosure)
Martha W. Bush, Esq.	(w/o enclosure)
Mr. James Wiggins	(w/o enclosure)
Mr. Timothy R. S. Campbell	(w/o enclosure)
Ms. Phyllis Zitzer	(w/o enclosure)
Judge Peter A. Morris	(w/o enclosure)

Attachment 1

Limerick Generating Station, Unit 1 Preservice Inspection Relief Request ASME B&PV Code, Section XI

Submittal Program

1. Introduction

- 1.1 The following provides a summary of our program for submitting relief requests for those Unit 1 Reactor Pressure Vessel (RPV) and piping components that could not be fully examined to the requirements of the ASME Boiler and Pressure Vessel Code, Section XI, Rules for Inservice Inspection of Nuclear Power Plant Components.

2. Scope

- 2.1 Requests for relief for limited preservice examinations of the RPV pressure retaining and support components are applicable to the requirements of the 1980 Edition of Section XI, as modified by the Addenda through the Winter 1980.
- 2.2 Requests for relief for limited preservice examinations of the pressure retaining and support components of piping, vessels, pumps, and valves are applicable to the requirements of the 1974 Edition of Section XI, as modified by the Addenda through the Summer 1975, Appendix III of the Winter 1975 Addenda and paragraph IWA-2232 of the Summer 1976 Addenda.
- 2.3 The requirements of Subsections IWP and IWV, pump and valve operability testing, are not included in the scope of this document.

3. References

- 3.1 Final Safety Analysis Report, Limerick Generating Station, Units 1 & 2
- 3.2 Safety Evaluation Report, related to the operation of Limerick Generating Station, Units 1 & 2, August 1983
- 3.3 ASME Boiler & Pressure Vessel Code, Section XI
 - 3.3.1 1980 Edition as modified by the Addenda through the Winter 1980.
 - 3.3.2 1974 Edition as modified by the Addenda through the Summer 1975, Appendix III of the Winter 1975 Addenda and paragraph IWA-2232 of the Summer 1976 Addenda.

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4.2 Limited piping component examinations are documented in Relief Requests 6 through 24, the Component Summary Table and the Safety Impact Summary.

4.2.1 Relief Requests 6 through 24 include:

4.2.1.1 Summary of the Code requirements for the preservice examination of a particular group of piping components. Generally, there is one Relief Request per Code Item No. of Tables IWB-2600 and IWC-2600. (More than one Relief Request is possible if there is a difference in the particular Code requirement from which relief is requested.)

4.2.1.2 The particular Code requirement from which relief is requested.

4.2.1.3 Identification of the number of piping components included in each Relief Request.

4.2.1.4 Technical justification for granting relief.

4.2.2 Component Summary Table includes:

4.2.2.1 The identity of each pipe component for which relief is requested. Components are listed on the Component Summary Table in the same order that they are listed in NES document 80A1558 (Reference 3.5). The Table includes:

- Component identification number.
- Isometric drawing number.
- Code Item No. & Category.
- Description of the physical configuration.
- Incomplete Examination Analysis Report Number.
- Description of the obstruction limiting the examination.
- Identification of the examinations that were limited and to what extent.
- Safety Impact Category Number.
- Relief Request Number.

4.2.3 Safety Impact Summary includes:

4.2.3.1 A brief description of the Plant requirements based on a postulated complete failure of each piping component that was not completely examined.

:

- 3.4 General Electric (GE) Document LIM-FIP-1, Preservice Inspection Program Plan for the Reactor Pressure Vessel, Limerick Unit No. 1
 - 3.4.1 GE Dwg. 160-83B-18, Sheets 1-4, Weld Identification (RPV)
- 3.5 Nuclear Energy Services (NES) Document 80A1558, Limerick Generating Station, Unit 1, Preservice Inspection Program Plan for Nuclear Piping Systems

4. Description

- 4.1 Limited RPV examinations are documented in Relief Requests 1 through 5 and Attachment #7 (TAB #8) of General Electric's "USNRC Regulatory Guide 1.150 Report, Limerick Unit #1".
 - 4.1.1 Relief Requests 1 through 5 include:
 - 4.1.1.1 A summary of the Code requirements for the preservice examination of a particular group of RPV components. Generally there is one Relief Request per Code Item No. of Table IWB-2500-1.
 - 4.1.1.2 The particular Code requirement from which relief is requested.
 - 4.1.1.3 Identification of the RPV component(s) included in each Relief Request.
 - 4.1.2 Attachment #7 (TAB #8), "Report of Examined Volume" includes:
 - 4.1.2.1 A list of the RPV welds that were examined including a description of the limited examinations and the obstruction causing the limitation.
 - 4.1.2.2 A description of the examination technique used for each weld (manual vs. remote automatic) and the coverage provided by each technique.
 - 4.1.2.3 Calculations of the areas examined and not examined.
 - 4.1.2.4 A graphic representation of the areas in 4.1.2.2 and 4.1.2.3 above.

5. Submittal

5.1 Submittal of the request for relief is provided for resolution of :
SER confirmatory Item #12 as detailed in our response to NRC RAI
250.5. The submittal is attached as follows:

- 5.1.1 Attachment 2: Final Relief Requests with supporting
Technical Justification.
- 5.1.2 Attachment 3: General Electric's "USNRC Regulatory Guide
1.150 Report, Limerick Unit #1".
- 5.1.3 Attachment 4: Component Summary Table.
- 5.1.4 Attachment 5: Safety Impact Summary.

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Limerick Generating Station, Unit 1
Preservice Inspection Relief Request
ASME B&PV Code, Section XI

19. Class 1 Pressure Retaining Welds in Piping
Code Item No. B4.5, Category B-J

Code Requirement:

Those pipe longitudinal and circumferential pressure retaining welds included in Code Category B-J of Table IWB-2500 shall be volumetrically examined per Item B4.5 of Table IWB-2600. Indications shall be evaluated using the acceptance standards specified in the 1974 Edition of Section III, subsubarticle NB-5330 per subarticle IWA-3100(b).

Relief Request:

Relief is requested from performing the evaluation of 7 longitudinal welds, identified as RRA-027LD Max./Min., RRA-028LU Max./Min., RRA-037LD Max., RRA-038LU Max., RHB-005LD Max., and 1 circumferential weld identified as FWB-028, using the acceptance standards specified in NB-5330. These welds are included in the Component Summary Table.

Justification for Granting Relief:

All indications, which produced a response greater than 20% of reference level during the preservice ultrasonic examinations, were investigated to the extent that the NDE technician was able to evaluate the extent, shape, identity, and location in terms of the requirements of the 1974 Edition of ASME Section III, as modified by the Addenda through the Summer 1975, subsubarticle NB-5330. The indications included in this relief request have been identified as either interpass lack of fusion or non-metallic inclusion and although they do not exceed the limits specified in NB-5330, they are considered rejectable because of their identity.

These specific indications produced a response greater than 20% of reference level. They were sized using a 1/2 amplitude endpoint technique.

Supplemental flaw evaluations were performed using the acceptance standards specified in the 1980 Edition of ASME Section XI as modified by the Addenda through the Winter 1981. Flaw characterization was performed in accordance with Article IWA-3000.

Limerick Generating Station, Unit 1
Preservice Inspection Relief Request
ASME B&PV Code, Section XI

The indications included in this relief request have been characterized as either subsurface or multiple planar flaws, the majority of which are laminar in orientation. Aspect ratios were developed for all flaws. The flaws were then evaluated using the acceptance standards specified in Article IWB-3000 and found acceptable. Note that IWB-3000 was used to evaluate indications in both Class 1 and Class 2 components.

The indications included in this relief request will receive successive inspections in accordance with subsubarticle IWB-2420.

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Limerick Generating Station, Unit 1
Preservice Inspection Relief Request
ASME B&PV Code, Section XI

20. Class 2 Pressure Retaining Welds in Piping
Code Item No. C2.1, Categories C-F and C-C

Code Requirement:

Those pipe circumferential butt welds included in Code Categories C-F and C-G of Table IWC-2520 shall be volumetrically examined per Item No. C2.1 of Table IWC-2600. Indications shall be evaluated to the acceptance standards specified in the 1974 Edition of Section III, subsubarticle NC-5330 per subarticle (WA-3100(b)).

Relief Request:

Relief is requested from performing the evaluation of 4 welds, identified as RHB-194, HP-117, RDA-019, and RDB-011, using the acceptance standards specified in NC-5330. These welds are included in the Component Summary Table.

Justification for Granting Relief:

All indications, which procured a response greater than 20% of reference level during the preservice ultrasonic examinations, were investigated to the extent that the NDE technician was able to evaluate the extent, shape, identity, and location in terms of the requirements of the 1974 Edition of ASME Section III, as modified by the Addenda through the Summer 1975, subsubarticle NC-5330. The indications included in this relief request have been identified as either interpass lack of fusion or non-metallic inclusion and although they do not exceed the limits specified in NC-5330, they are considered rejectable because of their identity.

These specific indications produced a response greater than 20% of reference level. They were sized using a 1/2 amplitude endpoint technique.

Supplemental flaw evaluations were performed using the acceptance standards specified in the 1980 Edition of ASME Section XI as modified by the Addenda through the Winter 1981. Flaw characterization was performed in accordance with Article IWA-3000.

Limerick Generating Station, Unit 1
Preservice Inspection Relief Request
ASME B&PV Code, Section XI

The Indications included in this relief request have been characterized as either subsurface or multiple planar flaws, the majority of which are laminar in orientation. Aspect ratios were developed for all flaws. The flaws were then evaluated using the acceptance standards specified in Article IWB-3000 and found acceptable. Note that IWB-3000 was used to evaluate indications in both Class 1 and Class 2 components.

The indications included in this relief request will receive successive inspections in accordance with subsubarticle IWB-2420.

07028402

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AUG 07 1984

JOHN S. KEMPER
 VICE-PRESIDENT
 ENGINEERING AND RESEARCH

Mr. A. Schwencer, Chief
 Licensing Branch No. 2
 Division of Licensing
 U. S. Nuclear Regulatory Commission
 Washington, DC 20555

SUBJECT: Limerick Generating Station, Units 1 and 2
 Information for Materials Engineering Branch (MTEB)
 Regarding SER Confirmatory Issue #12 - Preservice
 Inspection (PSI) Program

REFERENCES: 1) Telecon between M. Hum/C. Y. Cheng (NRC/MTEB) and
 D. Schmidt (PECo), 7/20/84
 2) Letter, J. S. Kemper (PECo) to A. Schwencer (NRC),
 dated 7/17/84

ATTACHMENTS: 1) Limerick Unit 1 PSI Relief Request No. 19, Rev. 1
 2) Limerick Unit 1 PSI Relief Request No. 20, Rev. 1
 3) History of Welds in Relief Requests 19 and 20

FILE: GOVT 1-1 (NRC)

Dear Mr. Schwencer:

As discussed in the reference (1) telecon, attachments 1 and 2 provide revisions to Relief Requests 19 and 20. The Limerick Unit 1 relief requests were originally transmitted by reference (2). Attachment 3 provides additional information to supplement these revised relief requests.

Sincerely,

John S. Kemper
 for
J. S. Kemper

RRH/cam08028405

Attachments

cc: See Attached Service List

B408130296 B40807
 PDR ADDOCK 05000352
 G PDR

A047
 1/1

cc: Judge Lawrence Brenner (w/o enclosure)
Judge Richard F. Cole (w/o enclosure)
Troy B. Conner, Jr., Esq. (w/o enclosure)
Ann P. Hodgdon, Esq. (w/o enclosure)
Mr. Frank R. Romano (w/o enclosure)
Mr. Robert L. Anthony (w/o enclosure)
Charles W. Elliot, Esq. (w/o enclosure)
Zori G. Ferkin, Esq. (w/o enclosure)
Mr. Thomas Gerusky (w/o enclosure)
Director, Penna. Emergency (w/o enclosure)
Management Agency
Angus R. Love, Esq. (w/o enclosure)
David Wersan, Esq. (w/o enclosure)
Robert J. Sugarman, Esq. (w/o enclosure)
Spence W. Perry, Esq. (w/o enclosure)
Jay M. Gutierrez, Esq. (w/o enclosure)
Atomic Safety & Licensing (w/o enclosure)
Appeal Board
Atomic Safety & Licensing (w/o enclosure)
Board Panel
Docket & Service Section (w/o enclosure)
Martha W. Bush, Esq. (w/o enclosure)
Mr. James Wiggins (w/o enclosure)
Mr. Timothy R. S. Campbell (w/o enclosure)
Ms. Phyllis Zitzer (w/o enclosure)
Judge Peter A. Morris (w/o enclosure)

Limerick Generating Station, Unit 1
Preservice Inspection Relief Request
ASME B&PV Code, Section XI

19. Class 1 Pressure Retaining Welds in Piping
Code Item No. B4.5, Category B-J

Code Requirement:

Those pipe longitudinal and circumferential pressure retaining welds included in Code Category B-J of Table IWB-2500 shall be volumetrically examined per Item B4.5 of Table IWB-2600. Indications shall be evaluated using the acceptance standards for examination evaluation specified in subarticle IWB-3100 of the 1974 Edition of Section XI, including Addenda through Summer 1975.

Relief Request:

Relief is requested to use the acceptance standards specified in the 1980 Edition of ASME Section XI, including Addenda through Winter 1981 (anticipated code edition to be used for ISI examination), in lieu of the 1974 Edition of ASME Section XI, including Addenda through Summer 1975. This relief is requested for the evaluation of seven (7) longitudinal welds, identified as RRA-027LD Max./Min., RRA-028LU Max./Min., RRA-037LD Max., RRA-038LU Max., RRB-005LD Max. and one (1) circumferential weld identified as FWB-028. These welds are included in the Component Summary Table.

Justification for Granting Relief

The factors considered in the use-as-is disposition of weld flaw indications are as follows:

1. Use of the 1980 Edition of ASME Section XI, including Addenda through Winter 1981, for determining acceptance criteria for preservice examinations is appropriate and in compliance with 10CFR50 requirements. The 1980 Edition of ASME Section XI uses recently developed piping weld acceptance criteria based on fracture mechanics. These acceptance criteria reflect current technology for ASME Section XI applications which did not exist in the 1974 Edition, Summer 1975 Addenda. This technology acknowledges that service induced flaw growth results from planar as opposed to laminar oriented flaws. It requires the use of a flaw sizing evaluation technique, recording of flaw sizes above a given size, and subsequent examinations to check for possible growth or the origination of new service induced flaws. It is already a requirement of 10CFR50 that the first ISI examination for Limerick Unit 1 has to be performed to a Section XI Code Edition that uses pipe weld acceptance criteria based on fracture mechanics.



Limerick Generating Station, Unit 1
Preservice Inspection Relief Request
ASME B&PV Code, Section XI

2. All indications, which produced a response greater than 20% of reference level during the preservice examinations, were investigated to determine their extent, shape, identity and location. The indications were characterized and considered to be unacceptable per the evaluation standards of ASME Section XI, 1974 Edition including Addenda through Summer 1975; however, these indications are acceptable per the evaluation standards of ASME Section XI, 1980 Edition including Addenda through Winter 1981. The indications were characterized as either subsurface or multiple planar flaws per Article IWA-3000 of the 1980 Edition of ASME Section XI. Flaw aspect ratios were developed and evaluated using the acceptance criteria specified in Article IWB-3000 of the 1980 Edition.
3. Welds were previously examined by radiography and evaluated as required by ASME Section III and all were found to be acceptable. The shop fabricated piping subassemblies have satisfied all ASME Section III requirements as signified by signoff of Form NPP-1 and application of the ASME Section III Code NPT Stamp.

Based on the above, it was concluded that there were no safety or plant reliability concerns and the subject welds were accepted for use-as-is.

The welds included in this relief request will receive successive inservice inspections in accordance with subsubarticle IWB-2420 of ASME Section XI, 1980 Edition including Addenda through Winter 1981, which is the anticipated code edition for the inservice inspection (ISI) program. This requires more frequent inspection than would normally be required for welds without indications.



Limerick Generating Station, Unit 1
Preservice Inspection Relief Request
ASME B&PV Code, Section XI

20. Class 2 Pressure Retaining Welds in Piping
Code Item No. C2.1, Categories C-F and C-G

Code Requirement:

Those pipe longitudinal and circumferential pressure retaining welds included in Code Categories C-F and C-G of Table IWC-2520 shall be volumetrically examined per Item C2.1 of Table IWC-2600. Indications shall be evaluated using the acceptance standards for examination evaluation specified in subarticle IWC-3000 of the 1974 Edition of Section XI, including Addenda through Summer 1975.

Relief Request:

Relief is requested to use the acceptance standards specified in the 1980 Edition of ASME Section XI, including Addenda through Winter 1981 (anticipated code edition to be used for ISI examination), in lieu of the 1974 Edition of ASME Section XI, including Addenda through Summer 1975. This relief is requested for the evaluation of four (4) welds, identified as RHB-194, HP-117, RDA-019, and RDB-011. These welds are included in the Component Summary Table.

Justification for Granting Relief

The factors considered in the use-as-is disposition of weld flaw indications are as follows:

1. Use of the 1980 Edition of ASME Section XI, including Addenda through Winter 1981, for determining acceptance criteria for preservice examinations is appropriate and in compliance with 10CFR50 requirements. The 1980 Edition of ASME Section XI uses recently developed piping weld acceptance criteria based on fracture mechanics. These acceptance criteria reflect current technology for ASME Section XI applications which did not exist in the 1974 Edition, Summer 1975 Addenda. This technology acknowledges that service induced flaw growth results from planar as opposed to laminar oriented flaws. It requires the use of a flaw sizing evaluation technique, recording of flaw sizes above a given size, and subsequent examinations to check for possible growth or the origination of new service induced flaws. It is already a requirement of 10CFR50 that the first ISI examination for Limerick Unit 1 has to be performed to a Section XI Code Edition that uses pipe weld acceptance criteria based on fracture mechanics.



Limerick Generating Station, Unit 1
Preservice Inspection Relief Request
ASME B&PV Code, Section XI

2. All indications, which produced a response greater than 20% of reference level during the preservice examinations, were investigated to determine their extent, shape, identity and location. The indications were characterized and considered to be unacceptable per the evaluation standards of ASME Section XI, 1974 Edition including Addenda through Summer 1975; however, these indications are acceptable per the evaluation standards of ASME Section XI, 1980 Edition including Addenda through Winter 1981. The indications were characterized as either subsurface or multiple planar flaws per Article IWA-3000 of the 1980 Edition of ASME Section XI. Flaw aspect ratios were developed and evaluated using the acceptance criteria specified in Article IWC-3000 of the 1980 Edition.
3. Welds were previously examined by radiography and evaluated as required by ASME Section III and all were found to be acceptable. The shop fabricated piping subassemblies have satisfied all ASME Section III requirements as signified by signoff of Form NPP-1 and application of the ASME Section III Code NPT Stamp.



Based on the above, it was concluded that there were no safety or plant reliability concerns and the subject welds were accepted for use-as-is.

The welds included in this relief request will receive successive inservice inspections in accordance with subsubarticle IWC-2420 of ASME Section XI, 1980 Edition including Addenda through Winter 1981, which is the anticipated code edition for the inservice inspection (ISI) program. This requires more frequent inspection than would normally be required for welds without indications.

HISTORY OF WELDS IN
RELIEF REQUEST 19 AND 20

WELD I.D.	SECTION III		SECTION XI		NPP.1 SIGNOFF	HYDRO TEST DATE	N-5 SIGN- OFF DATE	N-5 STAMP DATE	BASE METAL MAT'L	WELD METAL MAT'L	REMARKS
	DATE OF EXAM	TESTOR; LOCATION	DATE TESTOR LOCATION	DATE FLAW IDENTIFIED							
RRA-027 LD MIN RRA-027 LD MAX RRA-028 LU MIN RRA-028 LU MAX	9-13-79	ASSOCIATED PIPING SHOP	6-2-83 NES SITE	6-14-83	3/18/80	8/27/83	7/10/84	7/19/84	SA-240 TP 316	ER- 316L E316 LT-3	NCR-7563
RRA-037 LD MAX RRA-038 LU MAX	9-17-79	ASSOCIATED PIPING SHOP	6-1-83 6-2-83 NES SITE	6-14-83	11/15/79	8/27/83	7/10/84	7/19/84	SA-240 TP 316	ER- 316L E316 LT-3	NCR-7564
RNB-005 LD MAX	11-17-79	TEXAS PIPE SHOP	5-18-83 NES SITE	4-17-84	12/14/79	3/24/83	4/16/84	4/17/84	SA-240 TP 316	308L	NCR S869M
FNB-028	5-5-79	PEABODY (GEO) SITE	7-31-83 NES SITE	8-4-83	N/A	12/23/83	4/20/84	4/24/84	SA352 LCB SA 240 NPL-6	E7018 E70S-2	NCR 7877
RNB-194	6-22-81	PEABODY (GEO) SITE	5-7-84 NES SITE	5-15-84	N/A	4/21/83	L A T E R	L A T E R	SA234 WPB SA351GR CF8M	ER309L E309L- 16	NCR S868M
HP-117	6-2-79	PEABODY (GEO) SITE	6-19-84 NES SITE	6-25-84	N/A	1/30/84	L A T E R	L A T E R	SA234 WPB SA 216 WPB	E70S-2 E7018	NCR S867M
RDA-019	2-21-81	RCI SHOP	3-18-83 NES SITE	1-6-84	10/1/81	10/13/83	L A T E R	L A T E R	SA 106 GR. B SA 234 NPB	E70S-2 E7018	NCR 7161
RBD-011	3-23-81	RCI SHOP	7-23-83 NES SITE	2-28-84	10/1/81	10/13/83	L A T E R	L A T E R	SA 106 GR. B SA 234 NPB	E70S-2 E7018	NCR S866M

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K. n

ENCLOSURE E

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JOHN S. KEMPER
VICE PRESIDENT
ENGINEERING AND RESEARCH

AUG 30 1984

Mr. A. Schwencer, Chief
Licensing Branch No. 2
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, DC 20555

Subject: Limerick Generating Station, Units 1 & 2
Information for Materials Engineering Branch (MEB)
Regarding SER Confirmatory Issue #12 - Preservice
Inspection (PSI) Program

References: 1) Letter, J. S. Kemper (PECo) to A. Schwencer (NRC),
dated 7/17/84
2) Letter, J. S. Kemper (PECo) to A. Schwencer (NRC),
dated 8/7/84
3) Letter, T. T. Martin (NRC) to J. S. Kemper (PECo),
dated 8/3/84

Attachment: 1) Disposition of Welds Included in Relief Request
Nos. 19 and 20

File: GOVT 1-1 (NRC)

Dear Mr. Schwencer:

The welds included in Relief Requests Nos. 19 and 20, most recently set forth in Reference 2, have undergone subsequent examination and evaluation and have been dispositioned such that relief from Code requirements is no longer required. Therefore, we are withdrawing Relief Request Nos. 19 and 20. Additional information to support the final disposition of the subject welds is provided in Attachment 1.

Sincerely,

J. S. Kemper

RRH/pd08298404
Attachment
See Attached Service List

ATTACHMENT 1

Disposition of Welds Included in Relief Request Nos. 19 and 20

Relief Request No. 19 includes eight (8) Class 1 welds and Relief Request No. 20 includes four (4) Class 2 welds. These welds were examined by radiography and hydrostatically tested as required by the construction code (ASME Section III, 1974 Edition including addenda through Summer 1975) and were found to be acceptable.

Subsequent examinations were conducted using ultrasonic techniques to establish a preservice inspection (PSI) record of the welds as required by ASME Section XI. Although not required by Section XI zero degree ultrasonic scans were performed to identify any conditions which may interfere with results obtained from the Code required angle beam scan. These zero degree scans were performed at sensitivities far in excess of Code requirements. Most of the indications reported in the Relief Requests were noted using the zero degree scan. The indications were originally evaluated using only the conservative ultrasonic test results and using the acceptance criteria of ASME Section XI (1974 Edition including addenda through Summer 1975) and all were found to be rejectable. At that time an evaluation using the acceptance criteria of ASME Section XI (1980 Edition including addenda through Winter 1981) was performed and all indications were found to be acceptable. This later edition of Section XI was used because it is the anticipated applicable code for the Inservice Inspection (ISI) Program for Limerick Unit 1.

The above ultrasonic examinations were performed prior to Code stamping of the systems in which the welds are located and PECO was advised, after filing Relief Request Nos. 19 and 20, that the ASME Section III acceptance criteria must be used for evaluation of the indications.

The subject welds were re-examined and evaluated by the PSI contractor and an independent consultant. The examinations consisted of ultrasonic scans using zero degree and/or angle beam techniques, supplemental radiography and magnetic particle testing where appropriate. Weld process data and weld end prep details were also considered. In addition the independent consultant performed ultrasonic examinations at the sensitivity required by ASME Section XI. In all cases the re-evaluation by the PSI contractor and evaluation by the independent consultant concluded that the welds are acceptable and meet the acceptance criteria of ASME Section III. Indications on six welds which originally were evaluated as lack of fusion have been classified as a grain boundary indication which is detected as an ultrasonic indication using a more sensitive exam than required by the Code. In some cases the sensitivity of the exams which detected the indications were as much as 1000% more sensitive than required. None of the radiographs or Section XI required ultrasonic exams detected any evidence of lack of fusion in these welds.

One weld has been reworked to remove minor indications slightly below the surface of the weld. These indications were removed by grinding without infringing on the ASME Section III required minimum pipe wall thickness.

The twelve (12) welds of concern have been dispositioned as follows:

- RRA-027LD min., RRA-027LD max., RRA-028 LU min., RRA-028 LU max.

Original evaluation was reject due to lack of fusion. Subsequent exams and evaluation show this to be a grain boundary indication which is not a defect and is acceptable to ASME Section III and Section XI.

- RRA-037 LD max., RRA-038 LU max.

Original evaluation was reject due to lack of fusion. Subsequent exams and evaluation show this to be a grain boundary indication which is not a defect and is acceptable to ASME Section III and Section XI.

- RRB-005

Original evaluation was reject due to an indication evaluated as a slag inclusion. Subsequent exam and evaluation place this indication in the base metal and is acceptable to the base material requirements of ASME Section III.

- RRB-022

Original evaluation was reject due to lack of fusion. Subsequent exams and evaluation show this to be small scattered lamellar inclusions in the base metal which are acceptable to the base material requirements of ASME Section III.

- RRB-194

Original evaluation was reject due to non-metallic inclusion. Subsequent exam and evaluation shows this to be located in the base metal and is acceptable to the base material requirements of ASME Section III.

- RRB-117

Original evaluation was reject due to side-wall lack of fusion. Subsequent exam, which included angle radiography, and evaluation shows this to be a lamellar indication located in the base metal, abutting the weld. The indication is acceptable to the base material and weld requirements of ASME Section III and Section XI.

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RDA-019

Original evaluation was reject due to lack of fusion. Subsequent exams show that the indication is lamellar, located in the weld prep extending into the base metal and is not a lack of fusion. The indication is acceptable to the base material and weld requirements ASME Section III and Section XI.

RDB-011

Original evaluation was reject due to small cracklike indications (slightly subsurface) in the base metal. The indications were not evident on a liquid penetrant surface examination. Subsequent exams and evaluation confirm the presence of these indications which are acceptable to ASME Section III base material requirements. However, the suspect area has been reworked to remove these indications and preclude any interference with examinations conducted during the ISI program. Reexamination of the base metal after rework shows that it is acceptable to ASME Section III and Section XI.

In conclusion, the twelve welds are acceptable to both the construction code (Section III) and code governing PSI (Section XI). Relief from the Code requirements for these welds is not required.

RRH/pd08298409

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