

NATIONAL BOARD TASKS REPORT

Revision 11

April 1, 1983

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NATIONAL BOARD
TASKS REPORT
- REVISION 11 - EXECUTIVE SUMMARY

NBT-1 Generic Design Specification

Schedule and Current Status revised to reflect S&L issuance of supplements to applicable H-Specifications which reference the Design Specification.

NBT-2 Material Release by Non-Certificate Holders

Schedule and Current Status revised to reflect S&L revision of a DDC to the Design Specification relative to acceptable material specifications and to extend the HJK date for obtaining additional vendor documentation and documenting any material found unacceptable by five weeks.

NBT-3 Material Manufacture, Certification, and Supply

No change in Status. Awaiting National Board review.

NBT-4 CG&E Takeover of Partial Piping Systems

Schedule and Current Status revised to extend schedule three weeks for review and issuance of procedures.

NBT-5 Owner's ANI

Task is completed and is awaiting closure.

NBT-6 Catalytic's Modifications to Piping System

CLOSED

NBT-7 State Acceptance of Containment Liner

Schedule updated to show completion of HJK action. Current Status updated to reflect CG&E rejection of HJK action. No schedule available.

NBT-8 Vessel Modification by HJK

This task cannot be completed until the NRC Stop Work Order is lifted. Text, Action Plan, Schedule and Current Status deleted until that time.

NBT-9 Mandatory Preheat Requirements

Final resolution is integral with the Site Weld Procedure Review Program. Schedule and Current Status

revised to reflect three week extension for review and approval of DDC's to resolve conflicts between the Piping Design Specification and H-Specifications.

NBT-10 Pumps and Valves to the 1968 Code

CLOSED

NBT-11 Shimming of Penetrameters

Reviewed by State of Ohio and National Board on March 18, 1983. Awaiting results.

NBT-12 Overstress During Hydrostatic Tests

Schedule and Current Status revised to show that revised S&L calculations have been presented to National Board Audit Team. Awaiting their review.

NBT-13 Improperly Stamped Flow Check Valves

Editorially changed status. Awaiting National Board review.

NBT-14 Non-Code Components

Schedule is extended two weeks for CG&E final report of evaluation. Award of contract for SJAE condensers is on schedule.

NBT-15 As-Constructed Drawings

Schedule and Current Status revised to extend schedule three weeks for resolution of problems encountered in material identification.

NBT-16 Closure of NR's Prior to Stamping

Schedule extended three weeks for incorporation of comments, additional review and issuance of the revised procedure.

NBT-17 Issuance and Control of NR's

CLOSED

NBT-18 Review of Construction Procedures

Current Status updated to reflect indications that the National Board will recommend closure.

NBT-19 Review of IIDR's

Current Status updated to reflect indications that the National Board will recommend closure.

NBT-20 Temporary Change Notices

Revised Action Plan, Schedule and Current Status to show addition of a new HJK task to address concern of National Board expressed in meeting of March 22, 1983.

NBT-21 Qualification of NDE Personnel

Schedule improved two weeks based upon HJK input.

NBT-22 Radiographic Weld Identification

Current Status updated to reflect Action is on schedule.

NBT-23 Weld Procedures

No change in status.

NBT-24 Weld Filler Metal

Schedule extended three days to allow for issue of revised procedure.

NBT-25 Generic NR's

Revised Current Status to identify a meeting has been held and another is scheduled with the National Board to develop an Action Plan and Schedule.

NATIONAL BOARD TASKS

Task No.	Description
NBT-1	Generic Design Specification

NATIONAL BOARD FINDINGS
(Interim Report #1)

- "2.1 The National Board Audit Team questioned the adequacy of a Generic Design Specification which fulfills the requirements for all piping systems. The CG&E, Sargent & Lundy, has submitted a certified Design Specification listed as Appendix A of Specification H-2255. Appendix A is dated November 11, 1976, Revision 0. The date of Specification H-2255 is August 23, 1973.

Appendix A of Specification H-2255 lists several other documents which must be used in conjunction with, and form a part of, the Design Specification.

The Registered Professional Engineer (RPE) who is certifying the Design Specification does not in all instances certify the other documents which are considered part of the Design Specifications. Nor does he certify revisions to said documents.

Further, it is difficult to determine whether or not the certifying RPE recertifies the Design Specification after a revision to the other documents which form part of the Design Specifications.

- 2.1.1 The National Board Audit Team is of the opinion that any revisions to the Base Design Specification or to any documents which are listed as part of the Design Specification must be reviewed and certified by the RPE of record on the Design Specification. Further, all documents which are to be used as part of the Design Specification must be listed by revision in the Design Specification.
- 2.1.2 CG&E has received an interpretation from their AE. The interpretation, however, does not address the control of revisions to the Design Specification. Furthermore, the interpretation regarding this Code requirement did not come from ASME as required."

NATIONAL BOARD FINDINGS
(Interim Report #2)

"2.5 On May 12, 1982, an informal meeting was held with a Sargent & Lundy representative and CG&E Quality Engineering (QE) to review the National Board concerns relative to the control of Sargent & Lundy Design Specification (Item 2.1 - Interim Report No. 1).

2.5.1 Sargent & Lundy committed to review the National Board Audit Team's concern and write an addition to the Design Specification describing to users of the Specification how the total document is to be applied at Zimmer, including the control of revisions.

2.5.2 This does not totally address the National Board Audit Team's concern relative to revisions to Design Specification or to any documents which are listed as a part of the Design Specification and the review and Certification by the Registered Professional Engineer of record on the Design Specification. The National Board Audit Team will continue to pursue its concerns when a copy of Sargent & Lundy's procedural addition is available for review."

SUMMARY

1. Documents, including drawings and sketches, which are referenced by the Design Specification must be controlled in the same manner as the Design Specification and listed by revision in the Design Specification.
2. All revisions to both the Design Specification and the referenced documents must be reviewed and certified by the Registered Professional Engineer.
3. S&L has committed to the National Board that a procedure will be written for the control of the Design Specification and revisions.

CG&E RESPONSE
(Item 2.1)

"As the Owner, CG&E understands the requirements of ASME Section III, Summer 1973 Addenda as outlined in NA-3250. We concur that all design documents which form a part of the Design Specification including piping drawings, P&ID's, line lists and associated specifications must be controlled in the same manner as the basic Design Specification. We also understand that this applies to all revisions of the above documents and that the revisions to those documents must be certified by the responsible Registered Professional engineer or another designated Registered Professional Engineer. We shall instruct Sargent & Lundy (our designee in this matter,) to include as part of the Design Specification a configuration control sheet to document and control all related design documents. This will assure that all revisions to any of the above design documents are controlled and certified by a Registered Professional Engineer."

STATE OF OHIO COMMENTS
(Item 2.1)

"This should be on a regularly established basis such as suggested at the August 10, 1982 meeting (monthly) - on a matrix where revisions are indicated and certified by the responsible Registered Professional Engineer. Your response acceptable."

CG&E RESPONSE
(Item 2.5)

"This finding was also reported in Interim Report No. 1 (Finding 2.1). As stated in our reply to that finding, we will require Sargent & Lundy to assure that all revisions to Design Documents which are part of the Design Specification are reviewed and certified by a responsible Registered Professional Engineer."

STATE OF OHIO COMMENTS
(Item 2.5)

"Your response is acceptable. The National Board Audit Team should be presented with a copy of the proposed "Design Document Issue Status Report" and Sargent & Lundy's revised PIZI procedure for review."

ACTION PLAN

- S&L:
- a. Control all documents referenced by the Design Specification, including piping drawings, P&ID's, line lists and associated specifications. Add a configuration control sheet to the Design Specification to document and control these documents and all revisions.
 - b. Assure that a Registered Professional Engineer has reviewed and certified both the Design Specification and the referenced documents and all revisions.

- c. Issue a procedure for the control of the Design Specification and all referenced documents.
- d. List all Code Cases and Code Addenda updated paragraphs used in the construction of the piping systems.
- e. Remove Appendix A from H-2255 and issue as separate Design Specification (H-Specification), and revise to include additional Code-required information per RHG&A and CG&E comments.
- f. Issue supplements to H-2184, H-2254, H-2255 and H-2256 referencing the Piping System Design Specification, H-2938.

RHG&A: a. Review above documents and send comments to CG&E.

b. Review subsequent revisions to above documents.

CG&E: a. Review specification revisions and RHG&A report and provide direction to S&L.

b. Review above documents with the National Board Audit Team and send closure report to the National Board and State of Ohio.

SCHEDULE

<u>Responsibility</u>	<u>Estimated Completion</u>	<u>Actual Completion</u>
<u>S&L:</u> a.		February 11, 1983
b.		September 16, 1982
c.		February 28, 1983
d.		November 11, 1982
e.		February 11, 1983
f.		March 30, 1983 11
<u>RHG&A:</u> a.		December 15, 1982
b.	April 5, 1983	
<u>CG&E:</u> a.		December 23, 1982
b.	April 5, 1983	

CURRENT STATUS

S&L: a. Completed.

b. Completed.

c. Completed.

| 11

d. Completed.

e. Completed.

f. Completed.

| 11

RHG&A: a. Completed.

b. Reviewing supplements to the subordinate H-specifica- | 11
tions.

CG&E: a. Completed.

b. Reviewing supplements to H-specifications. H-2938, |
Rev. 0 has been transmitted to the National Board | 11
Audit Team.

NATIONAL BOARD TASKS

Task No.	Description
NBT-2	Material Release by Non-Certificate Holders

NATIONAL BOARD FINDINGS
(Interim Report #1)

"2.2 Cincinnati Gas and Electric Company procured piping subassemblies from M.W. Kellogg Company, ASME N-1251 NPT Certificate of Authorization number (now Pullman Power Products, Williamsport, Pennsylvania). As part of these purchase orders, M.W. Kellogg Company supplied loose material such as pipe, fittings, flanges, etc... The material was received by Kaiser and was accepted for release to construction based on a notification of release from CONAM, CG&E's source inspection Agency.

2.2.1 National Board considers this procedure for the release of material by Kaiser through CG&E and or CONAM, who do not hold N Certificates of Authorization to be in apparent nonconformance to Paragraph NA-4441, NA-4442."

SUMMARY

All material (such as pipe, fittings, flanges, etc.) which was received by Kaiser, should have been accepted for release based on their own inspection and review, and not based on reviews by others, because Kaiser is the responsible Certificate Holder.

CG&E RESPONSE
(Item 2.2)

"The Henry J. Kaiser (HJK Quality Assurance Program requires HJK to perform receipt inspection on all Code material used or installed under the HJK QA Program. HJK will review all material documentation for acceptance in accordance with their ASME QA Program. Any nonconforming material identified will be documented on Nonconformance Reports and properly dispositioned. Receipt inspection by HJK will be performed on all incoming Code material."

STATE OF OHIO COMMENTS
(Item 2.2)

"Documentation should be given to the National Board Audit Team in order that they may verify that it complies with the code. Acceptable."

ACTION PLAN

- HJK: a. Review documentation to assure that all material received from M.W. Kellogg was reviewed and accepted by Kaiser based on HJK receipt inspections.
- b. Identify any material which is determined to be unacceptable or of indeterminate quality. The method of identification shall be in accordance with the HJK Quality Assurance Program and acceptable to the jurisdictional and regulatory authorities.
- S&L: Revise Piping Design Specification to identify material specifications of later Code Editions and Addenda that are acceptable and reconcilable with the Design/Stress Report.
- RHG&A: a. Review the results of the HJK actions for items "a" and "b" above.
- b. Review revision to Piping Design Specification.
- CG&E: a. Monitor the above HJK activities for items "a" and "b" above.
- b. Review and approve revision to Piping Design Specification.
- c. Present the results of the above activities to the National Board and the State of Ohio.

SCHEDULE

<u>Responsibility</u>	<u>Estimated Completion</u>	<u>Actual Completion</u>	
<u>HJK:</u> a.		November 11, 1982	
b.	May 2, 1983		11
<u>S&L:</u>		March 22, 1983	11
<u>RHG&A:</u> a.	May 9, 1983		11
b.		March 31, 1983	11
<u>CG&E:</u> a.	May 9, 1983		11
b.		March 31, 1983	11
c.	May 16, 1983		11

CURRENT STATUS

HJK: b. Documentation review is complete for packages received to date. Twenty-five NR's have been issued for materials not meeting specification requirements. NR disposition is awaiting S&L revision to Piping System Design Specification, none dispositioned to-date. There are fifty-seven packages for which HJK transmitted requests on February 25, 1983 for documentation from the vendor.

S&L: Issued Revision "A" to DDC SLM-948.

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RHG&A: a. Reviewing results of HJK actions. Reviewing and monitoring NR dispositions and document review.

b. Reviewed Revision "A" to DDC SLM-948 and found acceptable. | 11

CG&E a. Monitoring HJK activities and tracking related NR's.

b. Reviewed Revision "A" to DDC SLM-948 and found acceptable. | 11

c. Presentation to National Board is awaiting completion of the fifty-seven packages by HJK.

NATIONAL BOARD TASKS

Task No.	Description
NBT-3	Material Manufacture, Certification, and Supply

NATIONAL BOARD FINDINGS
(Interim Report #1)

"2.3 CG&E, in some cases, refused to allow Henry J. Kaiser Company to perform qualification surveys of material manufacturers. CG&E insisted that only they (CG&E) could approve whom Kaiser was to qualify. In some instances Kaiser was required to place material manufacturers on the Approved Vendors List based on CG&E's "personal experience" or by virtue of appearing on the Case Register.

2.3.1 The National Board Audit Team considers this procedure to be an apparent non-conformance to ASME Code requirements. Paragraph NA3451, Subarticle NA-3110 specifically states that responsibilities set forth in Section III relate only to Code compliance and not to contractual relations or legal liabilities. Cincinnati Gas and Electric Company must cease preventing Kaiser from the performance of those Code activities which are required to be performed by Kaiser's Certificate of Authorization."

NATIONAL BOARD FINDINGS
(Interim Report #1)

"3.2 Purchase Order 7070 22506 (and further documented on Nonconformance Report No. #E3633R1) was released to:

LaBarge, Inc.
Tubular Division
20 South Fourth Street
St. Louis, Missouri 63102

to supply 20' 2-1/2" Sch. 40 SA 106 Gr B ASME Section III Cl 1 pipe and 220" 4" Sch. 40 SA 106 Gr B ASME Section III Cl 1 pipe. HJK required: 'All material contained in this order shall be manufactured by J&L Steel Corporation, Aliquippa and Pittsburgh, Pennsylvania, a purchaser-approved supplier.'

3.2.1 There is no record of a J&L Steel Corporation, Pittsburgh, Pennsylvania, Vendor Survey, nor does J&L Steel Corporation, Pittsburgh, appear on any HJK AVL.

- 3.2.2 The J&L Steel Corporation CMTR for Mill Order #263 556674 does not identify which plant, Aliquippa or Pittsburgh, manufactured this material.
 - 3.2.3 20' of 2 1/2" SA 106 Gr B pipe was manufactured by Youngstown Sheet & Tube Company and not J&L Steel as required by this purchase order.
 - 3.2.4 Material was manufactured prior to any HJK Vendor surveys of either Youngstown Sheet & Tube Company or J&L Steel Corporation.
 - 3.2.5 CMTR's are not certified as meeting the special requirements of NB-2000.
 - 3.2.6 Ultrasonic examination required by NB-3350 was performed by Industrial Testing Laboratories, Inc. for LaBarge, Inc. and would appear to be invalid in that this NDE company does not appear on any HJK AVL as a supplier of Nondestructive Examination.
 - 3.2.7 The material reported on the CMTR for heat #31582 appears to have been shipped from Youngstown to LaBarge on or about February 27, 1976, on truck #PIE 28114. Approximately fifteen (15) months prior to the release of this HJK purchase order, this material does not carry any type of certification to Section III requirements, and the pipe was manufactured about three (3) months prior to Youngstown's being placed on HJK AVL. In addition, we do not have copies of LaBarge purchase documents used to acquire this pipe.
- 3.3 It is the opinion of the National Board Audit Team that disposition "Accept As Is" documented NR No. E3633 R1 appears invalid based on the above-listed apparent non-conformance with Section III requirements. The National Board Audit Team shall be provided with documentation to assure this material was manufactured and purchased in accordance with Code Quality Assurance requirements, alternatively or removed. Acceptable documentation shall be in the form of the following:
- 3.3.1 LaBarge purchase and receiving documents for material provided on the P.O.

- 3.3.2 Certification provided by Youngstown Sheet & Tube and J&L Steel that Section III requirements, except UT were met.
- 3.3.3 The National Board Audit Team further believes that a thorough evaluation of all HJK P.O.'s to LaBarge (as a supplier of Nuclear Quality Material) shall be made.
- 3.4 Kaiser P.O. 7070-17688 dated June 22, 1976 for Carbon Steel SA106 GR B ASME Section III CL2 was purchased through LaBarge Tubular Division, St. Louis, Missouri. This material was manufactured by Gulf States Tube Corporation, Rosenberg, Texas sometime prior to November 25, 1974 and February, 1975. Gulf States Tube Corp. is listed on HJK's AVL, approved date September 28, 1976. The National Board Audit Team noted the following:
 - 3.4.1 The material reported on the CMTR for Heat #KA-2097 appears to have been shipped from Gulf States Tube Corp. on or about November 25, 1974, approximately one year and seven months prior to the release of this HJK P.O. and one year and ten months prior to this organization's being placed on the HJK AVL.
 - 3.4.2 The material reported on the CMTR for Heat #HA-0001 and #HA-0005 appears to have been shipped from Gulf States Tube Corp. on or about February, 1975, approximately one year and four months prior to the release of this HJK P.O. and one year and seven months prior to this organization's being placed on the HJK AVL.
 - 3.4.3 This material does not carry any type of certification to Section III requirements.
- 3.5 The National Board Audit Team shall be provided with documentation to assure that this material was manufactured and purchased in accordance with Code Quality Assurance requirements. Acceptable documentation shall be in the form of the following:
 - 3.5.1 LaBarge purchase and receiving documents for the material provided on this P.O.

Certification provided by Gulf States Tube Corp. that Section III requirements were met.
- 3.6 One additional problem noted during this review was: Material identified by Heat #KA2097 was shipped to

LaBarge Tubular Division, 121 East Koeln, St. Louis, Missouri. This supplier/warehouse facility does not appear on HJK's AVL.

- 3.7 The National Board Audit Team believes that similar problems exist in all Section III materials provided by LaBarge and possibly other suppliers. This shall be resolved by HJK."

SUMMARY

1. All material purchased by HJK must be received from Material Manufacturers who have been qualified by HJK as meeting applicable requirements of the Code.
2. Documentation for all material used by HJK must be reviewed to assure all Code requirements have been met.
3. Documentation for material purchased by HJK and any associated NR's must be available for National Board review.
4. Documentation of HJK's evaluations of Material Manufacturers shall be made available for National Board Review.
5. CG&E must not perform any Code responsibilities assigned to a Certificate Holder.

CG&E RESPONSE (Item 2.3)

"Cincinnati Gas & Electric understands that the Code responsibility for qualification of Material Manufacturers is a responsibility of the ASME Certificate Holders. HJK will assure that the Material Manufacturers for Code materials have a QA Program meeting the requirements of NX-2600 (Section III, Summer 1973 Addenda). CG&E will not assume the HJK responsibilities for the performance of any Code activities required by the Code to be performed under the HJK Certification of Authorization.

A special task force has been formed to evaluate purchases made from suppliers that were not listed on HJK's Approved Vendors List. The vendors are being identified and Nonconformance Reports written as part of the document review process. There is no longer a requirement for HJK to obtain CG&E approval to perform vendor surveys. Both organizations are cooperating to clear up all deficiencies involving unapproved suppliers.

As of July 28, 1982, approximately 98% of the purchases made from vendors not listed on the AVL have been evaluated. This evaluation has identified 33 vendors not appearing on the AVL at the time of procurement, resulting in 62 Nonconformance Reports.

Final disposition and acceptance has been completed on two of the Nonconformance Reports."

STATE OF OHIO COMMENTS
(Item 2.3)

"Task Force should meet with the National Board Audit Team and report on progress and identify NCR's generated on this subject and their disposition. Your response acceptable."
(Also see below.)

CG&E RESPONSE
(Item 3.2)

- "3.2.1 The material was manufactured by J&L Steel Corporation, Aliquippa. The Pittsburgh location should not have been listed in the HJK purchase order for this material.
- 3.2.2 The number 263 on the mill order is the J&L Steel Corporation identification number for the plant. In addition, the Pittsburgh plant of J&L does not produce pipe material. This information is to be documented by J&L Steel Corporation and a copy will be available to the National Board for review.
- 3.2.3 The Purchase Order has been amended to provide that the material was to be furnished by Youngstown Sheet & Tube Company who has been on the HJK Approved Vendors List.
- 3.2.4 LaBarge will be requested to assure that both Youngstown Sheet & Tube Company and J&L Steel Corporation meet the requirements of NX-2600, Summer 1973 Addenda.
- 3.2.5 All material ordered and received on Purchase Order 7070-22506 has been reviewed and accounted for and none of the material has been used in Class I piping systems. Wherever any of this material is to be used on ASME Class 2 or 3 piping systems, HJK will assure that the requirements of NC/ND-2000 have been met for the material. This material will not be used on Class I piping systems unless the material test reports can be certified per the requirements of NB-2000.
- 3.2.6 In the event that the Industrial Testing Laboratory cannot be qualified, then HJK will not use

the material which had been ultrasonically examined by Industrial Testing Laboratories in any ASME Class I piping system.

- 3.2.7 HJK has requested that LaBarge provide their purchase and receiving documents for all materials provided on this purchase order and the documentation that the requirements of Section III were met."

STATE OF OHIO COMMENTS
(Item 3.2)

"Meeting with National Board Audit Team should be held to review HJK procedures and progress report on the subject of material verification and certification. In addition Task Force should present to the National Board Audit Team all NCR's and their final disposition. Acceptable." (Also see below.)

CG&E RESPONSE
(Item 3.3)

"The Authorized Nuclear Inspector (ANI) will be provided with documentation that the material was manufactured and purchased in accordance with the requirements of Section III. The disposition will follow the National Board guidelines above."

STATE OF OHIO COMMENTS
(Item 3.3)
(See below.)

CG&E RESPONSE
(Item 3.4)

"The material in question shall be documented on an NR and action will be taken to assure that the requirements of NX-2000 have been met."

STATE OF OHIO COMMENTS
(Item 3.4)
(See below.)

CG&E RESPONSE
(Item 3.5)

"The ANI will be provided with the documentation to assure the material was manufactured in accordance with the Code requirements of NX-2000."

STATE OF OHIO COMMENTS
(Item 3.5)
(See below.)

CG&E RESPONSE
(Item 3.6)

"The address given for LaBarge is the address of a shipping point for route deliveries from the Material Manufacturer and does not have an effect on HJK's review of the LaBarge tubular division."

STATE OF OHIO COMMENTS
(Item 3.6)
(See below.)

CG&E RESPONSE
(Item 3.7)

"HJK shall assure that all materials provided by LaBarge meet the requirements of Section III, NX-2000. Also, other suppliers shall be reviewed to see if similar problems exist and the appropriate resolutions will be addressed.

HJK has committed to perform a full scale review of all Section III Purchase Order documentation, with the first priority being LaBarge. This review has already begun, and will be completed with all deficiencies resolved.

As of this date 110 ASME Purchase Orders involving 40 different companies have been identified. Nonconformance Reports have been written due to the AVL problems on ASME Purchase Orders and the HJK AVL Task Force has the primary responsibility to perform the research required to disposition these NR's."

STATE OF OHIO COMMENTS
(Item 3.7)
(See below.)

STATE OF OHIO COMMENTS
(Items 2.3, 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7)

"The National Board Audit team has reviewed the documentation presented and while we have agreed, with reservations, with the proposed methods of correcting these deficiencies at this time these findings cannot be closed out for the following reasons.

1. The National Board questions the validity of audits #17, 18, 19, 21, 22, 23 and 24. From the review of these audits it appears that the only criteria used to qualify these manufacturers was records of calibrated tensile machines. The National Board Audit Team is of the opinion, that the manufacturers Q. C. system must have also provided for procedures for I.D. of heat traceability, during the heating and melting practice and identification of traceability during the testing of coupons. Also the quality program should have been documented in a manual.

2. Henry J. Kaiser has stated that no material procured through LaBarge was used in ASME Class 1 Systems. However, the matrix presented to the National Board Audit Team in many cases only identifies material to a system and not an individual ISK or PSK. The systems identified do have Class 1 requirements (per piping line list).
3. The National Board Audit Team cannot at this time make any meaningful review of the presented documentation until it is identified to a specific PSK or ISK.
4. In addition, in many instances the matrix referenced above also identifies multiple heat #'s.
5. The National Board also is of the opinion that given the fact that these audits are being performed several years after the fact they must be comprehensive and complete including the statement by the material manufacturer.

If the above concerns can be satisfied the National Board Audit Team will be in a position to make a further review of the findings and we will inform you as to the acceptability of the corrective action."

ACTION PLAN

- HJK:
- a. Review documentation of all material (not subassemblies) purchased and installed by HJK.
 - b. Small bore piping (2" nps and less).
 1. Determine whether Material Manufacturers were qualified in accordance with the HJK QA Program.
 2. If not on HJK AVL, assure Material Manufacturers met the requirements of NX-2610 Winter '75 Addenda.
 - c. Large bore piping (over 2" nps).
 1. Determine whether Material Manufacturers were qualified by HJK in accordance with QA Program.
 2. If not on HJK AVL, assure Material Manufacturers met the requirements of NX-2610, Summer '73 Addenda.
 3. Exempt backing rings from NX-2000 on the basis of NX-2121(e) in the Summer '77 Addenda and Interpretations III-1-77-208 and III-1-79-69.

- d. Where material does not comply with Code or applicable Code Cases, material is to be dispositioned in accordance with HJK QA Program, or by other methods acceptable to the jurisdictional and regulatory authorities.
- e. Assure documentation of all HJK material NR resolutions (see item (d) above) is available to the National Board.
- f. Respond to State of Ohio comments of December 8, 1982.
- g. Verify that no LaBarge material has been installed in ASME III, Class 1 systems.

S&L: Revise Design Specification to allow the use of NX-2610, Winter '75 Addenda and NX-2121(e), Summer '77 Addenda.

RHG&A: a. Review HJK actions "a" through "g" above.
 b. Review Design Specification changes.
 c. Review HJK response to State of Ohio comments.

CG&E: a. Assure that all Material Manufacturers used by HJK are also on HJK AVL.
 b. Assure all HJK material evaluations are available to the National Board.

SCHEDULE

<u>Responsibility</u>	<u>Estimated Completion</u>	<u>Actual Completion</u>
<u>HJK:</u> a.		October 15, 1982
b.1		October 15, 1982
b.2		November 4, 1982
c.1		October 15, 1982
c.2		November 4, 1982
c.3		October 25, 1982
d.	Pending	
e.		January 27, 1983
f.		January 27, 1983

	g.	March 9, 1983
<u>S&L</u> :	a.	October 25, 1982
<u>RHG&A</u> :	a.	January 27, 1983
	b.	December 7, 1982
	c.	January 27, 1983
<u>CG&E</u> :	a.	Pending
	b.	January 27, 1983

CURRENT STATUS

HJK:

- a. Completed.
- b. Completed.
- c. Completed.
- d. Final resolution of NR's pending National Board and State of Ohio approval of historical qualification of vendors.
- e. Awaiting National Board review.
- f. Awaiting National Board comments.
- g. Completed. NR-E-10764 QD issued on single occurrence. NR has been dispositioned for removal of the material.

S&L: Completed.

RHG&A: Completed.

CG&E:

- a. Awaiting National Board review.
- b. Completed.

NATIONAL BOARD TASKS

Task No.	Description
NBT-4	CG&E Takeover of Partial Piping Systems

NATIONAL BOARD FINDINGS
(Interim Report #1)

- "2.4 CG&E has a procedure, ADMIN-3, Rev. 0, 2/21/80, "Performing Construction on Systems/Areas under EPD Control: (Electrical Production Department). This procedure has been implemented to allow CG&E to take over piping systems which are still within the jurisdiction of HJK and are not completed or covered on an N-5 Data Report Form.

CG&E then directs the performance work on these systems or portions of systems, which in some instances may include the removal of or addition of welds. In some cases this work has been done with the use of HJK craft, but neither HJK QA or the ANI has been involved in the activities or review of proposed activities. Further, there is the possibility that there have been no records kept of weld material or piping material which may have been used to make these system modifications.

- 2.4.1 It is the opinion of the National Board Audit Team that this is an unacceptable practice. This also is in conflict with NA-3440, NA-3451, NA-3460, and the specific requirements of Interpretation III-1-77-159, dated June 30, 1978. The National Board Audit Team is of the opinion that until such time that an N-5 has been completed, piping systems that are to be Code symbol stamped must remain in the custody of the NA Certificate Holder.

Further, any modifications or changes to these systems shall be made under the requirements of the QA program of the NA Certificate holder who is responsible for executing the N-5 Data Report.

All turnover packages and associated documents involving modified Code piping systems shall be reviewed to assure that no Code work has been performed by other than the holder of an appropriate Certificate of Authorization and that this modification was properly reconciled with the design specification and documented final record package."

SUMMARY

1. Portions of piping systems are being turned over to others prior to the completion of a partial N-5 Data Report Form.
2. CG&E may be directing some additional Code work on these systems.
3. Possibly there are no records of welding material or piping material used for these piping system modifications.
4. The provisions of NA-3440, NA-3451, and NA-3460 and Interpretation III-1-77-159 must be met.
5. All modifications must be performed by a Certificate Holder and documented on an N-5 Data Report Form.

CG&E RESPONSE
(Item 2.4)

"CG&E recognizes that Code piping systems must remain in the custody of the NA Certificate Holder until an N-5 Data Report Form has been completed by the Certificate Holder. With regard to the Code piping systems at the Zimmer Station, all modifications or changes shall be made under the requirements of the QA Program of HJK or another N-type Certificate Holder authorized for the Zimmer site.

The provisions of ASME Code Interpretation III-1-77-159, dated June 30, 1978 shall be followed.

All turnover packages and associated documents involving modified Code piping systems shall be reviewed to assure that no Code work has been performed by other than the holder of an appropriate ASME Certificate of Authorization and that modifications are properly reconciled with the Design Specification and Stress Report or calculations and documented in the final record package."

STATE OF OHIO COMMENTS
(Item 2.4)

"Turnbacks to remain in custody of "NA" Certificate Holder until N-5 is completed. You refute this statement by saying "or another N-type Certificate Holder." When and how will the review of all turnover packages and associated documents involving modified piping systems occur, be reconciled with design specification and documented, and final records packaged? How are you monitoring this now? Acceptable provided the NB Audit Team is properly advised."

ACTION PLAN

- HJK:
- a. Run a pilot N-5 to determine the best system for N-5 compilation.
 - b. Finalize N-5 Data Report procedures (ZAPO-6, QRM-1, QRM-13, QRM-15, MCP-1 and MIP-1), including addressing final reconciliation with Design Specification and records turnover.
 - c. Implement the N-5 Data Report procedures.
 - d. Develop procedure or revise ZAPO-6 for HJK maintaining administrative control of partially completed piping systems during CG&E pre-op work.
- CG&E:
- a. Determine whether CG&E or any other non-Certificate Holders performed any Code work on partially completed piping systems.
 - b. Develop a procedure or revise existing procedures for performing pre-op type work on piping systems under HJK administrative control prior to completion of the N-5 Data Report.
 - c. Review procedures related to control of partially completed piping systems with the National Board.
 - d. Documentation of work orders reviewed, review of bolting material per MCP-7, and HJK documentation of review associated with N-5 procedure will assure that work performed by others is identified. Documentation of work orders reviewed and MCP-7 to be presented to the National Board.
- RHG&A:
- a. Assure that the above HJK procedures comply with the requirements of the Code.
 - b. Review CG&E pre-op procedure for compatibility with the Code.

SCHEDULE

<u>Responsibility</u>	<u>Estimated Completion</u>	<u>Actual Completion</u>	
<u>HJK:</u> a.		February 21, 1983	
b.	April 22, 1983		11
c.	May 6, 1983		11
d.		March 4, 1983	
<u>CG&E:</u> a.		November 9, 1982	
b.		March 29, 1983	11
c.	April 29, 1983		11
d.		February 23, 1983	
<u>RHG&A:</u> a.	April 22, 1983		11
b.		February 9, 1983	

CURRENT STATUS

- HJK: a. Completed.
- b. ZAPO-6 revision has been issued. Schedule extended for balance of procedures due to complexity of procedures and review cycle. All procedures scheduled for final issuance by April 22, 1983. | 11
- c. Awaiting issuance of procedures. | 11
- d. Completed. | 11
- CG&E: a. Completed.
- b. CG&E directive establishing policy has been reviewed with the National Board Audit Team. A revision incorporating comments has been issued. | 11
- c. Reviewing procedures.
- d. Completed.
- RHG&A: a. Reviewing procedures.
- b. Completed. | 11

NATIONAL BOARD TASKS

Task No.	Description
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NBT-5	Owner's ANI
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NATIONAL BOARD FINDINGS
(Interim Report #1)

"2.5 Cincinnati Gas and Electric Company at present does not have an inspection contract with an Authorized Inspection Agency to provide inspection services for the Owner's activities. As of this date there has been no Authorized Nuclear Inspector auditing or monitoring the CG&E activities in the compilation of Code required documents for completion and certification of the N-3 Data Report Form(s).

2.5.1 It is the opinion of the National Board Audit Team that by the rules of the 1971 ASME Section III, Summer 1973 Addenda of the Code, CG&E or their agent is required to have a valid inspection contract. The National Board Audit Team suggests that CG&E immediately contract with an Authorized Inspection Agency for inspection services."

SUMMARY

CG&E, as an Owner, should immediately enter into a contract with an Authorized Inspection Agency for the services of an on-site ANI.

CG&E RESPONSE
(Item 2.5)

"CG&E is contracting with an Authorized Inspection Agency to provide the appropriate level of Nuclear Inspection at the Zimmer site. CG&E will request this Inspection Agency to provide the inspection services as soon as possible in order to review Code documentation as required to fulfill our Code responsibilities."

STATE OF OHIO COMMENTS
(Item 2.5)

"CG&E presently obtaining an agreement with an Authorized Inspection agency---ANI to be on site within 30 days. Acceptable, if verified."

ACTION PLAN

CG&E: Enter into a contract with an Authorized Inspection Agency and engage ANI services.

SCHEDULE

<u>Responsibility</u>	<u>Estimated Completion</u>	<u>Actual Completion</u>
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<u>CG&E:</u>		February 17, 1983
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CURRENT STATUS

CG&E: The National Board Audit Team has indicated that this item will be recommended for closure in their March '83 Interim Report. | 11

NATIONAL BOARD TASKS

Task No.	Description
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NBT-6	Catalytic's Modifications to Piping Systems
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This task has been closed by the State of Ohio as of March 7, 1983. Refer to Revision 9 of this report for text.

NATIONAL BOARD TASKS

Task No.	Description
NBT-7	State Acceptance of Containment Liner

NATIONAL BOARD FINDINGS (Interim Report #1)

"2.7 The containment vessel apparently is within the scope of the State of Ohio Boiler and Pressure Vessel law regarding construction, inspection, and stamping, and there is no evidence of compliance with these requirements.

2.7.1 It is the opinion of the National Board Audit Team that CG&E contact the Boiler Pressure Vessel Division of the State of Ohio for possible resolution."

SUMMARY

There is no evidence that the containment vessel meets the State of Ohio Boiler and Pressure Vessel Law.

CG&E RESPONSE (Item 2.7)

"Mr. E. A. Borgmann has made arrangements with Chicago Bridge & Iron Co. to provide liner Data Report Forms, nondestructive examination records, and inspection records, procedures and material documentation. These records will be available for review by the National Board at the Zimmer site."

STATE OF OHIO COMMENTS (Item 2.7)

"National Board to receive documentation for review within two weeks -- is satisfactory progress."

ACTION PLAN

<u>CB&I:</u>	Provide Data Reports, NDE records, inspection records and material documentation to CG&E.
<u>HJK:</u>	Assemble, review and transmit all modification records to CG&E.
<u>RHG&A:</u>	Assist in presenting CB&I information to the National Board and the State of Ohio as requested by CG&E.
<u>CG&E:</u>	a. Present CB&I records to State of Ohio. b. Make modification records available to the National Board.

SCHEDULE

<u>Responsibility</u>	<u>Estimated Completion</u>	<u>Actual Completion</u>	
<u>CB&I:</u>		December 2, 1982	
<u>HJK:</u>		March 25, 1983	11
<u>RHG&A:</u>		December 2, 1982	
<u>CG&E:</u> a.		December 2, 1982	
b.	April 15, 1983		

CURRENT STATUS

<u>CB&I:</u>	Records complete.	
<u>HJK:</u>	Review of available documentation is complete with NR's open on site generic problems. Packages transferred to CG&E custody on March 25, 1983.	11
<u>RHG&A:</u>	Completed.	
<u>CG&E:</u> a.	Awaiting response from State of Ohio.	
b.	Preliminary review found modification packages incomplete and unacceptable beyond open NR's on heat number traceability and welder qualification. Records are being rejected back to HJK and no schedule projection is possible at this time.	11

NATIONAL BOARD TASKS

Task No.	Description
NBT-8	Vessel Modification by HJK

SUMMARY

Modification of the Standby Liquid Control Tank was not made as originally specified and approved. Additionally, it must be shown that the ANI inspected the modification, witnessed the hydrostatic test and completed the required Data Report Form.

Note: The text of this task has been removed from the National Board Tasks Report and will be reprinted when the NRC Stop Work Order has been lifted and the vessel modification can resume. Refer to Revision 7 of this report for text.

Due to the Stop Work Order currently in effect at the Zimmer site the Standby Liquid Control Tank modification cannot be completed. Actions to date include finalization of necessary calculations, authorization by General Electric and approval by the State of Ohio. The National Board has determined that the stated concern will remain open until the vessel modification has been completed and the Data Report filed.

NATIONAL BOARD TASKS

Task No.	Description
NBT-9	Mandatory Preheat Requirements

NATIONAL BOARD FINDINGS

(Interim Report #1)

"3.1 A Main Steam Feedwater system PSK FW1 Line No. 1, FWOZEAL8 MK43-37A to MK1B21F032A Field Weld No. K-50, WPS3.1.47 18; Nominal 1.351" Wall, Weld Data Sheet was reviewed. The WPS specified 60°F minimum preheat and was qualified without PWHT. The Weld Data Sheet verified these conditions.

NB-4622.1-1 requires a PWHT or a minimum preheat of 200°F for material over 3/4" up to 1-1/2" thick.

Neither Code requirement was met (200°F minimum preheat or PWHT). The problem is generic throughout the Feedwater system and may exist in the following systems: Residual Heat, HP Core Spray, Mainsteam and Reactor Feedwater.

3.1.1 It is the opinion of the National Board Audit Team that the only acceptable resolution shall be to identify all welds documented in the HJK KE-1 Form (Welding Data Records) as having been welded with improperly qualified WPS's, and to undertake actions to have them post-weld heat treated in accordance with the Code. This action of course, is to be in conjunction with the required requalifications of those WPS's."

SUMMARY

Some piping systems were welded without either PWHT or the required preheat applied. Welds made under these conditions must meet the requirements of the Code.

CG&E RESPONSE

(Item 3.1)

"We intend to invoke the provisions of NA-1140(f) to allow the use of NB-4620 as published in the Winter 1973 Addenda to Section III. In using this new provision it will be necessary for HJK to document that all materials being joined by welding have a reported carbon content of 0.30% or less. Any material which does not meet this requirement will be removed from the piping system or the affected material will be postweld heat treated in accordance with the requirements of the Code. In addition, the Design Specification will be modified to permit the use of NB-4620 in the Winter 1973 Addenda."

STATE OF OHIO COMMENTS
(Item 3.1)

"National Board Audit Team should be assured of weld identity material carbon content for each piping system affected to assure compliance with the State of Ohio and acceptance of this specific design change approach. Acceptable, provided you comply with the provisions of NA-1140(f) and (g)."

ACTION PLAN

HJK/CG&E: The Site Weld Procedure Review Program will:

1. Identify Weld Procedures deficient in requirements for preheat, PWHT and consideration of carbon content.
2. Review KE-1 cards to identify where the deficient procedures were used.
3. Review CMTR's for carbon content of materials/components identified in 2 above.
4. Generate NR's for welds where preheat/PWHT was not as specified.
5. Disposition NR's in accordance with HJK Action Item b.

HJK:

- a. Review CMTR's for all materials procured by H-2255 and H-2256 to assure that the maximum reported carbon is 0.30% or less.
- b. Any material more than 3/4 inch thick not meeting this requirement shall be removed, or the weld and HAZ shall be removed, or the weld shall be postweld heat treated.

S&L:

- a. Revise Design Specification to allow the use of NX- 4620 in the Winter 1973 Addenda to Section III.
- b. Resolve conflict between Design Specification and H-Specifications resulting from adoption of NX-4620 of the Winter 1973 Addenda.

RHG&A:

- a. Review documentation of HJK activities.
- b. Review S&L resolution of conflict.

CG&E:

- a. Initiate and obtain approval of DDC's to H-2184, H-2254, H-2255 and H-2256 to have Code requirements supersede present specification requirements.

- b. Provide documentation of HJK activities to the National Board.

SCHEDULE

<u>Responsibility</u>	<u>Estimated Completion</u>	<u>Actual Completion</u>	
HJK/CG&E: a.	Unavailable		
<u>HJK</u> : a.		November 30, 1982	
b.	Pending HJK/CG&E Action Item		
<u>S&L</u> : a.		October 26, 1982	
b.		March 2, 1983	
<u>RHG&A</u> : a.	Pending HJK/CG&E Action Item		
b.	April 15, 1983		11
<u>CG&E</u> : a.	April 15, 1983		11
b.	Pending HJK/CG&E Action Item		

CURRENT STATUS

<u>HJK/CG&E</u> :	In process. NED has provided an overall schedule for the Site Weld Procedure Review Program and requested a special sort of the Piping Line List to enable scoping and scheduling of this task.	11
<u>HJK</u> : a.	Twenty-six NR's have been written after reviewing 586 P.O.'s on essential piping material welded or to be welded.	
b.	Disposition for the NR's is pending completion of CG&E, Item "a" and HJK/CG&E Action Item.	
<u>S&L</u> : a.	Completed.	
b.	S&L correspondence (SLM-26998) addresses revision of the H-Specifications to permit piping and fittings of 3/4 inch nominal thickness and less to have carbon content greater than 0.30 percent.	

- RHG&A: a. Awaiting results of Site Weld Procedure Review Program.
b. Awaiting approval of DDC's M-6132, M-6133, M-6134 and M-6135.

- CG&E: a. The above DDC's have been entered into approval cycle. As of March 31, 1983 S&L has reported approval of two of the four DDC's, those related to erection specifications H-2254 and H-2256. 11
b. Awaiting NR dispositions.

NATIONAL BOARD TASKS

Task No.	Description
NBT-10	Pumps and Valves to the 1968 Code

This task has been closed by the State of Ohio as of March 7, 1983. Refer to Revision 9 of this report for text.

NATIONAL BOARD TASKS

Task No.	Description
NBT-11	Shimming of Penetrameters

NATIONAL BOARD FINDINGS (Interim Report #1)

- "5.1 The National Board Audit Team reviewed the confirmation program 19-QA-01, Revision 2, now in process of being implemented by CG&E as a possible resolution to the problem of radiographs that were improperly shimmed by Pullman Power Products.

Appendix IX, Para. 3334.4 specifically requires that the penetrameters used be shimmed so that the total thickness being radiographed under the penetrameter is the same as the total weld thickness and backing strip if used and not removed.

- 5.2 The National Board Audit Team is of the opinion that this program 19-QA-01, Revision 2 will not satisfy the requirements of the Code, Appendix IX, Paragraphs IX-3334.3 and IX-3334.4. Further, all radiographs not meeting Code requirements are considered unacceptable."

SUMMARY

How are the requirements of the ASME Code met for the radiographs with deviations in shimming.

CG&E RESPONSE (Items 5.1 & 5.2)

"The State of Ohio has accepted the proposed CG&E plan for resolution of the shimming of penetrameters for radiography. A final report shall be submitted to the State of Ohio when complete. The report will include acceptance of the results by HJK and CG&E as well as the NRC and the Authorized Nuclear Inspector."

STATE OF OHIO COMMENTS (Item 5.1)

"NRC requested a meeting on this subject August 16, 1982 and the National Board Audit Team explained it's position that improperly shimmed radiographs were in non-compliance with ASME Code regardless of RT confirmation program. Proposed program acceptable."

ACTION PLAN

- RHG&A: a. Review final report for comments.
- b. Prepare proposed Code Interpretation and consider for submittal to ASME.
- CG&E: Submit final report to State of Ohio and then NRC.

SCHEDULE

<u>Responsibility</u>	<u>Estimated Completion</u>	<u>Actual Completion</u>
<u>RHG&A:</u> a.		January 31, 1983
b.	Pending	
<u>CG&E:</u>	Pending State of Ohio review	

| 11

CURRENT STATUS

- RHG&A: a. Completed.
- b. Proposed Code Interpretation drafted and being reviewed.
- CG&E: Site records were reviewed by the State of Ohio and the National Board on March 18, 1983; awaiting response. Submittal to the NRC pending the State of Ohio response.

| 11

NATIONAL BOARD TASKS

Task No.	Description
NBT-12	Overstress During Hydrostatic Tests

NATIONAL BOARD FINDINGS
(Interim Report #2)

- "2.1 The National Board Audit Team in reviewing CG&E generated NCR's, noted that at least two (2) portions of piping systems had been overstressed during hydrostatic tests. Involved were Low Pressure Core Spray (LP) and the Residual Heat Removal (RH) Systems.
- 2.1.1 The LP piping system involved was a 12-inch diameter designed for 475 psi at 202°F and includes lines 1LP17A3, 1LP02A12 between valves 1E21FOOS and 1E21F309, 1LP14A2, 1LPOSA12 to valve 1E21F012; lines 1LP0303A3 and 1LP0902 between valves 1E21F034 and 1E21F004 and 1LP32AA314, 1LP32AB314, 1LP30A314 and 1LP31A314. The maximum hydrostatic test pressure permissible was 629 psi $[475 \times 1.25 \times 1.060]$. The actual test pressure applied was 1200 psi according to a non-conformance report issued (Re: NR-7247 R-1). The system is classified as ASME Section III, Class 2.
- 2.1.2 The RH piping overstressed was a section of 8-inch diameter piping having a design pressure of 1125 psi at 575°F. The maximum hydrostatic test pressure permissible [based on $DP \times (1.25 \times 1.06)$] was 1490 psi. The actual test pressure applied was 2700 psi according to a non-conformance report (Re: NR-7258). The system is classified ASME Section III, Class 2.
- 2.1.3 The above-referenced NR's (NR-7247, R1 and NR-7258) were reviewed by the Owner's A.E., Sargent and Lundy Engineers, and dispositioned by the S&L engineer "Accept as Is." This disposition was based on the A.E.'s reviewing the yields as shown on the CMTR's for the material used, using the actual thickness of the material as determined by UT and recalculating the design pressure using actual thickness as measured and actual yield strength as indicated on the CMTR's and not using the stress values as listed in Table 1.7.1, Appendix I, ASME section III. The piping material used in both systems is SA-106 Grade B.

- 2.1.4 It is the National Board Audit Team's opinion that disposition of the above overpressurization and "Accept As Is" is not permitted by the rules of ASME Section III since maximum allowable stress values for material are established in the Appendix I tables; and in NC-3600 the definition of "S" states "the value of 'S' shall not exceed that given in Tables 1.7.1, 1.7.2 and 1.7.3".

SUMMARY

S&L used actual thicknesses and yield strengths determined from the CMTR's for acceptance of the hydrostatic tests of several systems. This does not comply with Code rules.

CG&E RESPONSE

(Item 2.1)

"CG&E recognizes the possible problems which can result from overstressing the referenced piping systems. Both CG&E and S&L are currently evaluating not only the systems described in the finding, but also all other conditions of possible overstress, on a generic basis. Proposed methods of resolving the National Board's concerns are described in S&L letter, SLC-23395, dated July 15, 1982, which is available for the team review. All conditions of overstress will be reanalyzed and resolved on a case by case basis."

STATE OF OHIO COMMENTS

(Item 2.1)

"Your response and proposed resolution are acceptable. However, all conditions of possible overstress and the results of your reanalysis shall be presented to the National Board Audit Team at the Zimmer site for review and acceptance on a case by case basis as proposed."

ACTION PLAN

- S&L:
- a. Send letter to CG&E to explain that evaluation using actual properties and thicknesses was to determine that material did not yield.
 - b. Evaluate overpressurization conditions in Design Report as necessary to determine any effect on fatigue analysis.
 - c. Revise the calculations used to disposition NR-7247, R1 and NR-7258.

- d. Evaluate other conditions of overstress under design conditions.

HJK: Deleted, see Current Status.

RHG&A: a. Review S&L letter.

b. Review HJK plans for hydrotesting and system walkdown inspection.

c. Review revised S&L calculations.

d. Review S&L evaluation.

CG&E: Present resolution of NR's to National Board.

SCHEDULE

<u>Responsibility</u>	<u>Estimated Completion</u>	<u>Actual Completion</u>
<u>S&L:</u> a.		November 12, 1982
b.		October 15, 1982
c.		February 24, 1983
d.		January 7, 1983
<u>RHG&A:</u> a.		December 3, 1982
b.		March 16, 1983
c.		March 16, 1983
d.		January 17, 1983
<u>CG&E:</u>		March 24, 1983

CURRENT STATUS

- S&L:
- a. S&L letter (SLC-25046) complete.
 - b. SLC-25191 identified that fatigue is not a problem for Class 2 and 3 piping systems.
 - c. SLC-26878 identifies S&L's transmittal of revised calculations for justification of dispositions for NR-7247, Rev. 1 and NR-7258.
 - d. SLC-25905 documents resolution of all other cases where actual CMTR values were used.

HJK: Revised S&L calculations identify that NB-6222 limits were not exceeded. No HJK action required.

- RHG&A:
- a. SLC-25046 has been reviewed and found acceptable.
 - b. No HJK action required.
 - c. S&L revisions reviewed and found acceptable.
 - d. SLC-25905 has been reviewed and found acceptable.

CG&E: a. S&L revisions reviewed by NED and found acceptable (SLM-1499). Revised calculations per SLC-26878 have been presented to the National Board Audit Team. | 11

NATIONAL BOARD TASKS

Task No.	Description
NBT-13	Improperly Stamped Flow Check Valves

NATIONAL BOARD FINDINGS

(Interim Report #2)

"2.2 NR numbers E-3785 and E-3882 indicate flow check valves manufactured by Dragon Valve Company and stamped ASME Section III Class 2 for 150 psi at 268°F are installed in the Reactor Recirculation System. These flow check valves are not properly stamped for the design conditions of the piping system where they are installed.

2.2.1 It is the opinion of the National Board Audit Team that flow check valves that are properly Code stamped by the valve manufacturer for the design conditions of the piping system (RR) shall be installed.

2.2.2 In addition, a walkdown of this system should be made to assure that Code stamped valves which comply with system design requirements have been installed and a copy of the valve manufacturer's Data reports shall be presented to the National Board Audit Team for confirmation."

SUMMARY

1. Assure that flow check valves are proper for the design conditions of the systems in which they are installed.
2. Walk down this system to assure all valves are properly installed.
3. Send copies of valve Data Reports to the National Board.

CG&E RESPONSE

(Item 2.2)

"CG&E agrees that the referenced valves are inappropriately stamped for the piping system in which they are installed. We are evaluating these valves to determine the best solution to the problem. If they cannot be restamped, they will be appropriately modified or replaced. We are also conducting a generic evaluation of this system to assure that no other similar situations exist."

STATE OF OHIO COMMENTS
(Item 2.2)

"Your response and proposed resolution are acceptable. Results of your evaluation of other systems should be presented to the National Board Audit Team. In addition, if valves are to be modified and restamped, the original manufacturer and his Authorized Inspection Agency must be involved. Modified Data Reports must be prepared and certified by the organization who performs the modification to the valves and their Authorized Nuclear Inspector, who shall witness the stamping. If they cannot be modified they shall be replaced with Code valves properly stamped."

ACTION PLAN

- HJK: a. Walk down system to assure no other valves are involved.
- b. Establish procedure for replacing valves.
- c. Provide line lists and valve identifications for RR system as requested by the National Board Audit Team.
- CG&E: Present valve Data Reports and replacement procedure to National Board.

SCHEDULE

<u>Responsibility</u>	<u>Estimated Completion</u>	<u>Actual Completion</u>
<u>HJK:</u> a.		November 11, 1982
b.		November 11, 1982
c.		February 23, 1983
<u>CG&E:</u>		January 27, 1983

CURRENT STATUS

- HJK: a. Completed.
- b. Completed.
- c. Completed.
- CG&E: Completed. Awaiting response from the National Board Audit Team.

NATIONAL BOARD TASKS

Task No.	Description
NBT-14	Non-Code Components

NATIONAL BOARD FINDINGS
(Interim Report #2)

- "2.4 A letter dated February 22, 1979 by S.A. Zych and D.D. Crisp of Sargent and Lundy Engineers contains "Notes of Inspection - February 5, 1979 regarding a Steam-Jet Air Ejector Condenser William H. Zimmer Unit 1."

Apparently this steam jet air ejector condenser failed due to overpressure causing cracks on the shell side to the tube sheet and the pulling of some tubes in the outer two (2) rows of tubes. A reference in the report was made to "poor penetration" (Weld), and the National Board Audit Team became interested in a possible Code violation by the manufacturer of the pressure vessel. In addition, the Team wished to confirm that the vessel was replaced as recommended in the above-referenced "Notes of Inspection."

- 2.4.1 The National Board Audit Team examined externally the pressure vessel ICD03AALIA and noted a Westinghouse nameplate with information as follows:

Westinghouse
1-8A 2679-1
Steam Pressure -200
Cooling Water -7600

There was a tag as follows:

HJK
PO #CG&E 2043
MR #10247 Received 7/1/74
ID ICD-03AA
Location - Compound

- 2.4.2 There was no evidence externally on the pressure vessel that it had been constructed and stamped in accordance with the ASME Code (a State of Ohio requirement for pressure vessels designed for 15 or more psi). It was also noted that the pressure vessel had apparently been repaired in the field.

2.4.3 The National Board Audit Team has attempted to obtain documentation from the CG&E vault and the Henry J. Kaiser vault for this pressure vessel and any repairs that have been made to it, and none has been made available to date.

2.4.4 It is the opinion of the National Board Audit Team that documentation shall be presented to the National Board Audit Team assuring the pressure vessel(s) in this condensate system and repairs to pressure vessels in the system are in accordance with the requirements of the State of Ohio."

SUMMARY

1. Verify whether or not the original pressure vessel has been repaired.
2. Verify whether or not the vessel meets ASME and State of Ohio rules.
3. Present documentation concerning the above to the National Board.

CG&E RESPONSE

(Item 2.4)

"We recognize that some non-Code vessels were used in applications for which compliance with the ASME Code may be required by the State of Ohio. We are conducting a generic evaluation to determine if other non-Code vessels have been installed in similar applications. CG&E will assure that all State of Ohio regulations are met for each pressure vessel installed."

STATE OF OHIO COMMENTS

(Item 2.4)

"Your response is unacceptable. Unless these vessels comply with the requirements of ASME Section VIII and the rules of the State of Ohio, they must be replaced. In addition, your generic evaluation of other vessels in the systems shall be presented to the National Board Audit Team; and, if they do not comply with the State of Ohio's requirements they shall be replaced."

ACTION PLAN

- CG&E: a. Contract with U-Stamp holder for fabrication of vessels.
- b. Present U-Stamp holder fabrication plan to the National Board and the State of Ohio.
- c. Conduct generic evaluation to determine if other non-Code vessels have been installed.
- d. Present results of evaluation to National Board.
- RHG&A: a. Review fabrication proposal.
- b. Review results of evaluation.

SCHEDULE

<u>Responsibility</u>	<u>Estimated Completion</u>	<u>Actual Completion</u>	
<u>CG&E:</u> a.	April 29, 1983		
b.		March 10, 1983	
c.	April 8, 1983		11
d.	April 18, 1983		11
<u>RHG&A:</u> a.		March 10, 1983	
b.	April 18, 1983		11

CURRENT STATUS

- CG&E:
- a. Fabrication specification has been approved. Released for bid March 15, 1983; award estimated April 29, 1983. ECR-854 for removal and replacement of SJAE Condensers has been approved.
 - b. Completed.
 - c. Draft report completed. Final report awaiting response from vendor on two vessels for which the CG&E evaluation has identified concerns. | 11
 - d. Awaiting results of evaluation.
- RHG&A:
- a. Specification has been reviewed and found acceptable.
 - b. Awaiting results of evaluation.

NATIONAL BOARD TASKS

Task No.	Description
NBT-15	As-Constructed Drawings

NATIONAL BOARD FINDINGS (Interim Report #2)

"3.1 During the review of various work packages for the essential service water system (WS), the National Board Audit Team requested copies of the "As Constructed" drawings for the embedded portions of the (WS) system. The National Board Audit Team was informed that no "as-built or as-constructed" drawings exist.

3.1.1 The National Board Audit Team is of the opinion that before the (WS) system can be Code Symbol Stamped and a Code Data Report certified, Henry J. Kaiser Company shall present to the National Board Audit Team a procedure for review that shall describe how Henry J. Kaiser will assure that the (WS) piping system is installed in accordance with the requirements of Design Specification and drawings. In addition, all material used shall be tabulated in accordance with ASME Code requirements."

SUMMARY

As-constructed drawings and material tabulations are required for the (WS) system.

CG&E RESPONSE (Item 3.1)

"H.J. Kaiser is investigating the problem to determine and verify their compliance with ASME code requirements concerning the as-built or as-constructed condition of the embedded portions of the essential service water system. A procedure is being developed to assure reconciliation of installed systems with applicable design documents. This information will be made available to the National Board for their review."

STATE OF OHIO COMMENTS (Item 3.1)

"We are at this time not prepared to either accept or reject your response. Acceptance or rejection will be made after the National Board Audit Team has received and reviewed your proposed procedure. Be aware, however, that the only acceptable response is one which shall assure compliance with all ASME Code requirements."

ACTION PLAN

- HJK: a. Prepare as-constructed drawing procedure (MCP-1) and material reconciliation procedure (QRM-1).
- b. Provide change data sufficient for S&L to finalize "as-constructed" drawings.
- c. Provide material tabulations or equivalent records acceptable to the ANI and the National Board.
- RHG&A: Review procedure and documents.
- CG&E: Present procedure, drawings, and tabulations to the National Board.

SCHEDULE

Responsibility	Estimated Completion	Actual Completion
<u>HJK:</u> a.	April 22, 1983	11
b.	April 29, 1983	11
c.	April 29, 1983	11
<u>RHG&A:</u>	May 6, 1983	11
<u>CG&E:</u>	May 13, 1983	11

CURRENT STATUS

- HJK: a. Revisions to MCP-1 and QRM-1 are in review and comment cycle.
- b. HJK review of installation documentation against design drawings (per MCP-1) for the WS system has encountered problems on material identification. Resolution of problems and completion of as-constructed drawings with bill of materials are in progress. | 11
- c. Preliminary documentation has been presented to the National Board Audit Team.
- RHG&A: Reviewing procedures. Awaiting as-constructed drawings and tabulation of materials.
- CG&E: Reviewing procedures. Awaiting as-constructed drawings and tabulation of materials.

NATIONAL BOARD TASKS

Task No.	Description
NBT-16	Closure of NR's Prior to Stamping

NATIONAL BOARD FINDINGS (Interim Report #2)

"3.2 The National Board Audit Team is also reviewing and is concerned with the Henry J. Kaiser non-conformance report system (NR). A major concern is how HJK will assure that all NR's affecting a specific system are dispositioned and closed prior to the Certification and Code symbol stamping of the completed system.

3.2.1 It has been determined by the National Board Audit Team that all NR's generated are not identified to a specific system or item. As an example, there are some NR's that have been generated against material, weld procedures and welder qualification records. Of particular concern to the National Board Audit Team is how HJK will assure that those NR's which are not identified to a system or item are closed, or do not affect the system or item prior to Stamping and Certification of the N-5 Data Report.

3.2.2 A meeting with HJK to discuss this concern was proposed. However, to date (July 1, 1982) this meeting has not been held."

SUMMARY

A method must be established for closing NR's on generic problems for systems or partial systems that are to be stamped or turned over.

CG&E RESPONSE (Item 3.2)

"A response to the National Board Audit Team's concern relating to HJK's ability to assure that all NR's affecting a specific system are dispositioned and closed prior to the Certification and Code Symbol stamping of the completed system has been prepared by HJK. The HJK Document Review Group will assure that all NR's are properly addressed before any system or item is stamped and certified or the N-5 Data Report is completed. Weld procedures are being reviewed by both the HJK Document Review Group and CG&E Quality Confirmation Program. No N-5 Data Reports will be prepared by HJK until assurances have been made that all weld procedures affecting a specific system or item are acceptable. The proposed program and its description in the next revi-

sion of QRM-1 will adequately resolve the concerns of the National Board Audit Team."

STATE OF OHIO COMMENTS
(Item 3.2)

"This response is similar to our answer to Item 3.1. Until the revised procedure QRM-1 is received and reviewed by the National Board Audit Team, no acceptance or rejection will be made."

ACTION PLAN

HJK: Establish procedures for closing out systems or partial systems on which the NR's on generic problems have not been resolved.

RHG&A: Review HJK procedure.

CG&E: a. Review HJK procedure.
b. Present procedure to National Board.

SCHEDULE

<u>Responsibility</u>	<u>Estimated Completion</u>	<u>Actual Completion</u>
<u>HJK</u> :	April 8, 1983	11
<u>RHG&A</u> :	April 18, 1983	11
<u>CG&E</u> : a.	April 18, 1983	11
b.	April 25, 1983	11

CURRENT STATUS

HJK: Incorporating comments to draft revision of QRM-1. | 11

RHG&A: Submitted comments to HJK on draft revision of QRM-1. | 11
Awaiting reissue of draft.

CG&E: a. Submitted comments to HJK on draft revision of QRM-1. | 11
Awaiting reissue of draft.

b. Awaiting final issuance of QRM-1. | 11

NATIONAL BOARD TASKS

Task No.	Description
NBT-17	Issuance and Control of NR's

This task has been closed by the State of Ohio as of March 7, 1983.
Refer to Revision 9 of this report for text.

Task No.	NATIONAL BOARD TASKS Description
NBT-18	Review of Construction Procedures

NATIONAL BOARD FINDINGS
(Interim Report #2, Supplement 1)

- "3.1 During a review of the HJK Procedures Manual it was noted that Henry J. Kaiser does not in all cases document review of construction procedures which are quality affecting. The HJK Q.A. Manual Q.A.P. #8, Rev. 9, Para. 3.5 states....."Zimmer project procedures affecting quality shall be reviewed by the Q.A. Department to assure that the Quality Assurance Program is properly implemented." The HJK Q.A. Manual (Glossary) further defines review as....."The process of appraisal of documentation to determine its adequacy with respect to specific requirements by signing and dating."
- 3.1.1 The National Board Audit Team is of the opinion that HJK Q.A. should review all Quality affecting procedures, and that such a review should be documented on a controlled document. The HJK Procedures Manual ZAPM-2, Rev. 1 (dated June 3, 1982) provides a matrix showing the approvals and reviews required on all procedures. This matrix is blank. HJK has submitted to the National Board Audit Team a completed matrix dated June 16, 1982; however, ZAPM-2 has not been revised to include the revision.
- 3.1.2 The National Board Audit Team is of the opinion that Q.A. review of all procedures affecting Quality is required by NA 4320, NA 4400, NA 4430 (ASME Section III, 1971 Edition, Summer 1973 Addenda). The National Board Audit Team is of the further opinion that should HJK desire to use the procedure review log maintained by the procedure coordinators as the document to provide evidence of Q.A. review, then this log should be referenced in the Q.A. Manual and in ZAPM-2 -- and this log should also be a controlled document."
- 3.3 HJK Q.A. Review of Procedures Affecting Quality
- 3.3.1 The National Board Audit Team also discussed with HJK Q.A. personnel the concern that some special process procedure methods (SPPM) which are required to be reviewed and approved by the HJK Q.A. Manager (Para. 2.10, QAP 10, Rev. 10,

response to Item 3.1 where HJK has committed to providing a review of all procedures related to Quality. This will be accomplished by revising ZAPM-2 to require a change in the title page to indicate that the QA Department, through the HJK QA Manager's signature and date, has reviewed the procedure. Additionally, the noted procedures are being evaluated by responsible design organizations under the provisions of ZAPM-2 to assure their requirements are met."

STATE OF OHIO COMMENTS
(Item 3.3)

"Your response is acceptable. The National Board Audit Team should be presented with evidence of implementation to the revision of ZAPM-2, and if satisfied they will close this item."

ACTION PLAN

HJK: a. Finalize revised ZAPM-2, Rev.2.
b. Have QA sign-off on all quality related procedures.
c. Provide explanation of research supporting QA signoff.

RHG&A: Review revised ZAPM-2 to assure that all quality related procedures will be signed off by QA.

CG&E: Present new procedure and sign-offs to the National Board.

SCHEDULE

<u>Responsibility</u>	<u>Estimated Completion</u>	<u>Actual Completion</u>
<u>HJK</u> : a.		October 22, 1982
b.		November 23, 1982
c.		February 23, 1983
<u>RHG&A</u> :		November 24, 1982
<u>CG&E</u> :		January 27, 1983

CURRENT STATUS

HJK: a. Completed.

b. Completed.

c. Completed.

RHG&A: Completed.

CG&E: Completed. The National Board Audit Team has indicated that this item will be recommended for closure in their March '83 Interim Report. | 11

NATIONAL BOARD TASKS

Task No.	Description
NBT-19	Review of IIDR's

NATIONAL BOARD FINDINGS
(Interim Report #2, Supplement 1)

"3.2 The HJK Procedure for Controlling NCR's ZAPO-5, Rev. 1 (6/2/82).

3.2.1 As part of this procedure Section 3.2 deals with in-process inspection deficiency records (IIDR). This document appears to be a vehicle which allows non-conforming conditions to be dispositioned and resolved without the proper or required review which would be mandated if the NR were to be used. One NR reviewer who is not in the cycle of review for the IIDR is the ANI. Also, there is no required review by the Architect Engineer (AE) for repairs.

3.2.2 The major concern of the National Board Review Team is the possible misuse and abuse of the IIDR and the definition of when "final inspection" takes place."

SUMMARY

The ANI does not review the IIDR as he would review an NR. The A/E is not involved for repairs.

CG&E RESPONSE
(Item 3.2)

"The HJK Quality Assurance Manual establishes the measures to be implemented to meet Code requirements dealing with nonconforming items. Implementing procedure ZAPO-5 establishes two methods for identifying and resolving nonconforming items. The first method involves the use of an In-Process Inspection Record (IIDR) which may only be used to record deficiencies in construction work identified up to and including the final inspection. Final inspection is defined in ZAPO-5, Rev. 1, Paragraph 3.1.11 as occurring, "when applicable, HJK and CG&E Quality Control Inspections are complete and the construction inspection plans (CIP) or other similar document is acceptance stamped and/or initialed as required, and transmitted to Quality Engineering by the Quality Control Supervisor." The IIDR document is to be used primarily to control deficiencies for which the normal method of resolution will be rework. We are currently evaluating the program and will inform the National Board of our course of action."

STATE OF OHIO COMMENTS
(Item 3.2)

"Acceptance or rejection of your response is withheld until you have the IIDR program re-evaluated as indicated in your response and have presented to the National Board Audit Team your course of action for its review, acceptance or rejection."

ACTION PLAN

- HJK: a. Evaluate IIDR and determine action to be taken.
b. If IIDR system is retained, establish scope of application.
c. Revise ZAPO-5 to include acceptable definition of "final inspection."
- RHG&A: a. Review actions taken by HJK.
b. Review ZAPO-5 and TCN 5-8 for Code conformance to assure that scope of application of IIDR meets Code requirements.
- CG&E: a. Present resolutions to National Board.
b. Forward revised ZAPO-5 with new definition of "final inspection" to National Board.

SCHEDULE

<u>Responsibility</u>	<u>Estimated Completion</u>	<u>Actual Completion</u>
<u>HJK:</u> a.		November 30, 1982
b.		December 17, 1982
c.		March 9, 1983
<u>RHG&A:</u> a.		December 8, 1982
b.		December 21, 1982
<u>CG&E:</u> a.		January 27, 1983
b.		March 10, 1983

CURRENT STATUS

HJK: a. Completed.
b. Completed.
c. Completed.

RHG&A: a. Completed.
b. Completed.

CG&E: a. Completed.

b. Completed. The National Board Audit Team has indicated that this item will be recommended for closure in their March '83 Interim Report. | 11

NATIONAL BOARD TASKS

Task No.	Description
NBT-20	Temporary Change Notices

NATIONAL BOARD FINDINGS
(Interim Report #2, Supplement 1)

"3.4 Temporary Change Notices (TCN).

- 3.4.1 HJK Procedure ZAPM-2, Rev. 1, 6/2/82, allows no QA/QC procedures to be revised without issuing a new revision through the use of a TCN. This system is not described in the HJK Q.A. Manual (QAP-2, Rev. 10, 3/24/82).
- 3.4.2 This system was in use prior to the recent ASME survey of March 22-24, 1982. HJK indicated that during this survey concern was raised by the Survey Team that if TCN's were used they would have to be referenced on inspection documents to assure adequate paper traceability. (See Attachment "B", Concern #1).
- 3.4.3 This system was deleted from the Q.A. Manual. However, TCN's are still being utilized for QA/QC procedures in the Zimmer Procedure Instructions Manual (ZPM).
- 3.4.4 The National Board Audit Team is of the opinion that when TCN's are used either on QA/QC Procedures or Construction Procedures, they must be identified by the TCN number on the inspection record. This is not being done."

NATIONAL BOARD FINDINGS
(Interim Report #7)

- "3.2.3 HJK insists that TCN's do not change procedure requirements. HJK claims that TCN's expand on or amplify existing requirements of a specific paragraph.
- 3.2.4 The National Board Audit Team is of the opinion that TCN's are being utilized to revise existing procedures, not just to expand or clarify requirements. The attached TCN clearly indicates that a new entity has been included in ZAPO-5, Revision 2, TCN #5-7.

- 3.2.5 The National Board Audit Team is of the opinion that if TCN's are utilized, then ZAPM 2, Revision 2, TCN #2-3 should be revised to state the purpose and limitations of TCN's."

SUMMARY

The National Board Audit Team has judged that TCN's are being utilized to revise existing procedures. The procedure (ZAPM-2) should be revised to state the purpose and limitations of TCN's.

CG&E RESPONSE

(Interim Report #2, Supplement 1, Item 3.4)

"In order to assure that document review and inspection activities are performed to appropriate revisions of either QA or Construction procedures, a Procedure History Matrix has been generated and published by the Documentation Department. The use of this matrix by the Document Review Department will assure that the requirements established by referenced procedures are properly addressed based upon both the effective date of the procedure, and any outstanding TCN's at the time the document preparation and completion have been incorporated. The use of this matrix should resolve any traceability concern on construction procedures as well as previously issued QA procedures, which were modified by TCN's. TCN's affecting a QA/QC procedure have either been incorporated into the next revision of that procedure or a procedure revision is under way in order to incorporate the requirements of that TCN. As noted above these procedures are currently being revised and upon approval, there will be no additional TCN's in effect on QA/QC procedures."

STATE OF OHIO COMMENTS

(Interim Report #2, Supplement 1, Item 3.4)

"Comments withheld until revised procedure and implementation are presented to and evaluated by the National Board Audit Team."

CG&E RESPONSE

(Interim Report #7, Item 3.2)

"CG&E understands the National Board Audit Team's concerns regarding the use of TCN's. CG&E will make arrangements for a meeting to be held between CG&E, HJK and the National Board to discuss these concerns and identify an action plan for resolution."

ACTION PLAN

- HJK: a. Finalize Procedure History Matrix.
b. Issue ZAPM-3 to establish matrix.
c. Revise and issue ZAPM-2 to effect controls on the use of TCN's. | 11
- RHG&A: a. Review HJK Procedure History Matrix.
b. Review ZAPM-3 for acceptability.
- CG&E: a. Make Procedure History Matrix and ZAPM-3 available to National Board.
b. Respond to the National Board Findings reported in Interim Report #7.

SCHEDULE

Responsibility	Estimated Completion	Actual Completion	
<u>HJK:</u> a.		November 4, 1982	
b.		December 31, 1982	
c.	April 7, 1983		11
<u>RHG&A:</u> a.		November 24, 1982	
b.		January 7, 1983	
<u>CG&E:</u> a.		January 27, 1983	
b.		March 11, 1983	

CURRENT STATUS

- HJK: a. Completed.
b. Completed.
c. In process.

| 11

- RHG&A: a. Completed.
b. Completed.

- CG&E: a. Completed.
b. Completed.

Note: The National Board Audit Team's concerns were discussed in a March 22, 1983 meeting. Necessary action was determined to be a revision of ZAPM-2 to better define the use and limitations of TCN's, however the Audit Team intends to continue investigation. | 11

NATIONAL BOARD TASKS

Task No.	Description
NBT-21	Qualification of NDE Personnel

NATIONAL BOARD FINDINGS
(Interim Report #2, Supplement 1)

"3.5 Non-Destructive Examination by the Henry J. Kaiser Company's (the Installer's) Sub-Contractors.

- 3.5.1 Nuclear Energy Services Inc. (NES) is currently the non-destructive examination (NDE) sub-contractor to Henry J. Kaiser (HJK) for radiographic (RT), magnetic particle (MT), non-destructive examination.
- 3.5.2 The National Board Audit Team is reviewing and will continue to review NDE procedures, personnel qualification and certification records of NDE performed for the Installer, Henry J. Kaiser, under their ASME "NA" and "NPT" Certificates.
- 3.5.3 NES apparently was placed on the HJK Approved Vendor List (AVL) on May 14, 1982 as a result of a March 9, 1982 audit conducted by HJK. However, a review of HJK's historical and current vendor documentation does not confirm that their NDE sub-contractor(s) had been surveyed and qualified by HJK prior to this date (3/9/82) as required by ASME Section III, 1971 Edition, Summer 1973 Addenda. ASME Section III, 1971 Edition, Summer 1973 Addenda requires the Installer (HJK) to survey and qualify the Q.A. programs of suppliers of sub-contracted services, including their NDE sub-contractors.
- 3.5.4 A review of NES records indicates that NES began invoicing HJK for NDE services on approximately March 10, 1980. Prior to that time, Peabody Magnaflux Testing Laboratory was the NDE sub-contractor to HJK for non-destructive examination. Peabody Magnaflux Testing Laboratory appears on HJK's Approved Vendor List from August 2, 1976 to 1980; however, no records of audits or surveys have been presented to the National Board Audit Team by HJK or CG&E that show Peabody Magnaflux Testing Laboratory was ever surveyed or audited by HJK as required by the ASME Code.

- 3.5.5 The National Board Audit Team, during the week of July 12, 1982, requested from both CG&E and HJK records of Peabody Magnaflux Testing Laboratory's NDE personnel qualification and certification records, NDE procedures used during the period on the Zimmer site, and a list of all personnel indicating time periods on site involved in NDE activities. To date these records have not been made available to the National Board Audit Team.
- 3.5.6 In the opinion of the National Board Audit Team, ASME Section III, 1971 Edition, Summer 1973 Addenda requires survey and audit of NDE sub-contractors for qualification and retention of those records during the period of construction, and these records should be available for audit."

NATIONAL BOARD FINDINGS
(Interim Report #5)

- "3.1 The National Board Audit Team reviewed at random thirty (30) of the fifty (50) NDE personnel files of NDE examiners employed by Peabody Magnaflux (H.J.K. NDE subcontractor at an earlier date). This review was conducted to determine if the review of these NDE personnel performed by HJK document reviewers and the HJK NDE Level III examiner, was adequate corrective action to allow HJK to confirm NDE qualification levels as being in compliance with ASME Section III (SNT-TC-1A 1968, 1975) and to close out CAR 118. CAR 118 was generated because of a previous HJK review of Peabody Magnaflux NDE personnel records that indicated deficiencies.
- 3.2 As a result of the National Board Audit Team review it has been determined that apparent deficiencies exist in the documentation used to support the certifications of several NDE examiners. The following are examples of these deficiencies.
- A. William Baldyga
1. Resume contains no names or dates of employment to permit verification to experience or training.
 2. Certification statements are signed by persons of unknown status.

B. Russel M. Araujo

1. No resume or adequate statement of experience to support certification.
2. Certification statements not signed by employer's Level III or the employee.

C. R. Buckner

1. No resume or adequate statement of training or experience to support earlier certifications.
2. Grades for RT Level 1 had been penciled in by unknown person with unknown basis for doing so (file copy of the examination record) in addition the examinations is neither signed nor legible. (Attachments 2-3 & 4)

3.2.1 It is the opinion of the National Board Audit Team that the review conducted of the Peabody NDE personnel files by HJK as a result of HJK Car #118 was inadequate in that NDE personnel have been certified as qualified without sufficient records to support the certifications as required by SNT-TC-1A and ASME Section III and in some cases certification statements are signed by persons of unknown status.

3.2.2 It is the opinion of the National Board Audit Team that HJK shall perform such audits and reviews as necessary, of Peabody NDE examination personnel files, to assure that the NDE examiners used at the Zimmer Nuclear Power Plant were qualified in accordance with ASME Section III and SNT-TC-1A requirements. Also the required documentation to support their certifications are in the NDE examiners file. If the NDE examiners cannot be properly certified or qualified, the NDE performed by that NDE examiner is nonconforming and shall be brought into conformance in accordance with H.J.K. QAP's. The National Board Audit Team shall be presented documentation resolving these findings."

SUMMARY

1. The National Board Audit Team has questioned whether or not NDE subcontractors were qualified by the NA installer (Henry J. Kaiser) prior to performance of NDE service.
2. The National Board Audit Team has requested access to and has reviewed a portion of Peabody-Magnaflux NDE certification records on file with Henry J. Kaiser to determine whether corrective actions through HJK CAR-118 were adequate. The National Board review indicates the Peabody-Magnaflux NDE personnel documentation is incomplete and contains apparent deficiencies despite closure of CAR-118. If NDE personnel qualifications and certification cannot be properly documented as adequate, the NDE performed is nonconforming and shall be brought into conformance in accordance with HJK QAP's.

CG&E RESPONSE
(Item 3.5)

"We recognize the requirement for documentation of qualification and certification of NDE personnel, and for survey, audit, and qualification of organizations to whom NDE is subcontracted. H. J. Kaiser is currently assembling the qualification and certification records of NDE personnel used, and is reviewing records to provide evidence of the qualification of the subcontractors used. This documentation will be made available to the National Board when it becomes available to CG&E."

STATE OF OHIO COMMENTS
(Item 3.5)

"Comments withheld until H. J. Kaiser provides the requested records to the National Board Audit Team for its review and evaluation."

CG&E RESPONSE
(Items 3.1 and 3.2)

CG&E agrees the NDE personnel documentation is currently inadequate and has been identified by HJK. Additional documentation has recently been acquired from Peabody-Magnaflux and will be provided to HJK. HJK will review all NDE personnel certification records. Where such records are identified as inadequate, proper steps will be taken to assure all Code requirements are met.

ACTION PLAN

- HJK:
- a. Provide records of all NDE subcontractor surveys and audits to CG&E.
 - b. Provide personnel qualification and certification records, NDE procedures used, and a list of personnel with dates of site work to CG&E.
 - c. Review documents provided by Peabody and identify any deficiencies.

RHG&A: Review NDE records from (a), (b), and (c) above.

CG&E: Make records available to the National Board.

SCHEDULE

<u>Responsibility</u>	<u>Estimated Completion</u>	<u>Actual Completion</u>	
<u>HJK:</u> a.		October 25, 1982	
b.		December 10, 1982	
c.	April 29, 1983		11
<u>RHG&A:</u>	May 16, 1983		11
<u>CG&E:</u>	May 16 1983		11

CURRENT STATUS

- HJK:
- a. Completed.
 - b. Completed.
 - c. Technical review indicated Peabody records are still incomplete. Peabody-Magnaflux, Chicago, Illinois has additional records and is preparing a proposal. Records will be sent upon issue of a purchase order.
- RHG&A: Preliminary review completed. Awaiting Peabody records and HJK report.
- CG&E: Awaiting records.

NATIONAL BOARD TASKS

Task No.	Description
NBT-22	Radiographic Weld Identification

NATIONAL BOARD FINDINGS

(Interim Report #2, Supplement 1)

"3.6 Radiographic Weld Identification

- 3.6.1 The National Board Audit Team requested HJK's Quality Engineering to identify procedures that address the responsibility for flagging or marking to verify the correct identity of field welds to be radiographed. Quality Engineering indicated to the Audit Team that no procedures exist.
- 3.6.2 An "NDE Request Instruction" was reviewed by the National Board Audit Team. The instruction vaguely addresses the topic; however, it is an uncontrolled document which is not approved and distributed in accordance with HJK's QAP 8, Rev. 9. In the opinion of the National Board Audit Team, this does not meet the requirements of ASME Section III, 1971 Edition, Summer 1973 Addenda.
- 3.6.3 Since HJK Quality Engineering has stated that no procedure exists, the National Board Audit Team is concerned with the possibility that personnel who are not properly trained and qualified may have been identifying and marking welds, causing a potential loss of integrity of the radiographic weld identification. HJK should provide to the National Board Audit Team evidence that proper radiographic weld identification integrity has been maintained during the period of construction.

SUMMARY

There is a concern that personnel identifying welds for NDE may not have been adequately qualified.

CG&E RESPONSE

(Item 3.6)

"We are evaluating this situation with H.J. Kaiser to assure that all field welds were properly identified and examined. The

results of our evaluation will be made available to the National Board. In addition, document review will assure correlation of radiographs for all welds in a given system requiring radiography."

STATE OF OHIO COMMENTS
(Item 3.6)

"Comments withheld until H. J. Kaiser evaluation is complete and documentation is presented to the National Board Audit Team for its review and response."

ACTION PLAN

- HJK: a. Provide evidence that proper radiographic weld identification has been maintained during construction.
- b. Perform sampling of RT film versus physical characteristics for weld identification, and report results.
- RHG&A: Review HJK sampling report.
- CG&E: Present results to the National Board.

SCHEDULE

<u>Responsibility</u>	<u>Estimated Completion</u>	<u>Actual Completion</u>
<u>HJK:</u> a.		December 15, 1982
b.	April 29, 1983	
<u>RHG&A:</u>	May 1, 1983	
<u>CG&E:</u>	May 1, 1983	

CURRENT STATUS

- HJK: a. Response received by CG&E.
- b. In process and on schedule.
- RHG&A: Awaiting HJK sampling report.
- CG&E: Awaiting HJK sampling report.

NATIONAL BOARD TASKS

Task No.	Description
NBT-23	Weld Procedures

NATIONAL BOARD FINDINGS
(Interim Report #3)

"3.1 Henry J. Kaiser Weld Procedure SPPM 3.1.50, Rev. 0.

- 3.1.1 This procedure was originally qualified with impact testing. The procedure was used on primary containment main steam penetration to seal head welds. The materials involved in these welds are SA350 Gr LF1 to SA516 Gr 70. The welds are identified on HJK Drawings PSK IMS 46, 48, 49 and 52. The welds are identified as Welds MS-M1, MS-M2, MS-M3 and MS-M4. The line numbers are identified as Lines IMSOA24, IMSOB24, IMSOC24 and IMSOD24.
- 3.1.2 ASME Section III, 1971 Edition/Summer '73 Addenda, Para. NB 2300 requires impact testing of materials within the thickness range of these weldments and base materials.
- 3.1.3 ASME Section IX, 1971 Edition/Winter '73 Addenda, states that a separate procedure qualification is required for each type and grade of material when impact testing is a requirement.
- 3.1.4 ASME Section IX, 1971 Edition/Winter '73 Addenda, lists an increase of more than 100°F in the specified maximum interpass temperature as an essential variable. ASME Section IX further lists as an essential variable a change in type of current (AC or DC), polarity, or specified range for amperage, voltage and speed of travel.
- 3.1.5 Weld Procedure Specification SPPM 3.1.50, Rev. 0, was qualified using SA106 Gr. B pipe and did not specify maximum interpass temperatures. Nor did it establish a speed of travel.
- 3.1.6 It is the opinion of the National Board Audit Team that Procedure WPS SPM 3.1.50, Rev. 0, shall be qualified in accordance with the requirements of ASME Section IX, 1971 Edition/Winter '73 Addenda. The National Board Audit Team also is of the opinion that Henry J. Kaiser (HJK) shall review other weld procedures of this type to assure that they comply with ASME Sec-

tion III requirements and provide the National Board Audit Team with documentation of this review identifying welds in the various systems where improperly qualified weld procedures were used and the proposed corrective action."

SUMMARY

Some weld procedures have not been properly qualified for all the essential variables as required by the ASME Code. Weld procedures should be reviewed to determine which procedures require requalification. If welds were welded with improperly qualified procedures, appropriate corrective actions should be identified to the National Board.

CG&E RESPONSE (Item 3.1)

"CG&E agrees that SPPM 3.1.50, Rev. 0 was not properly qualified in accordance with Sections III and IX. We are currently reviewing the impact of this problem on the welding which was done using this procedure. We will determine whether or not we can comply with the audit team's recommendation that this procedure be qualified. Regardless of whether or not we can comply with their recommendation, corrective action will be taken to bring the affected welds into compliance with Section III. We are currently reviewing other weld procedures of this type to determine the extent of this nonconformance."

STATE OF OHIO COMMENTS (Item 3.1)

None.

ACTION PLAN

- HJK:
- a. Identify all welding performed on materials requiring impact testing. Determine the procedures, base materials, and weld filler metals used, and the heat treatment condition of the welds.
 - b. Submit results of (a) to RHG&A for review.
 - c. Perform procedure qualification testing for the procedure variables identified in (a) above, using the maximum possible heat input, and the appropriate base materials.

- RHG&A: a. Review documentation of HJK review of welding performed.
- b. Review the HJK plans to qualify those procedures.
- c. Review completed procedure qualification.

CG&E: Present documentation to National Board.

SCHEDULE

<u>Responsibility</u>	<u>Estimated Completion</u>	<u>Actual Completion</u>
<u>HJK</u> :	No schedule provided by HJK	

CURRENT STATUS

HJK: In process; no results. Final results anticipated after complete historical review of all weld procedures.

CG&E: Awaiting HJK action.

NATIONAL BOARD TASKS

Task No.	Description
NBT-24	Weld Filler Metal

NATIONAL BOARD FINDINGS (Interim Report #3)

"3.2 Henry J. Kaiser Weld Filler Metal

- 3.2.1 As a result of a review of both historical and current weld procedures, it was noted that electrodes (10,000 lbs. each) of different types, i.e., 6010, 7018, produced by the same manufacturer were received bearing the same heat (HT) number on MR No. 22415 and P.O. No. 15220 and Murex Order 92-12978.
- 3.2.2 The National Board is of the opinion that weld material from the same heat of steel having different physical and chemical values leaves open the possibility of issuing the incorrect electrode type for the weldments to be made. HJK shall review weld issue slips (KE-2 forms) to determine where the weld electrodes in question were used. In addition, the National Board Audit Team shall be provided with HJK's documentation of where this weld materials was used and their corrective action.
- 3.2.3 The National Board is of the opinion that HJK shall develop a program acceptable to the National Board Audit Team for the review of all weld filler metal and certified material test reports to assure that this condition does not exist on other HJK purchases. If this deficiency is identified on other purchases of weld material, the National Board Audit Team shall be presented with documentation identifying the nonconformance and the corrective action taken to assure this material was not used on Code systems."

SUMMARY

Two different types of welding materials were found bearing the same heat numbers opening the issue that incorrect electrodes may have been issued for some weldments. HJK shall determine where the questionable electrodes were used and establish any necessary corrective actions. In addition, HJK shall determine if the problem is generic and any necessary corrective actions to be taken.

CG&E RESPONSE
(Item 3.2)

"CG&E agrees with the National Board audit team that weld filler material should be controlled by lot number rather than by heat number. However, after preliminary investigation, it appears that H. J. Kaiser had a control program that effectively prevented the use of the wrong type of welding electrode during the time period when E6010 electrodes were permitted to be used by H. J. Kaiser at the Wm. H. Zimmer site. We will further investigate the applicable H. J. Kaiser control procedures and present the results of our investigations to the National Board audit team."

ACTION PLAN

- HJK:
- a. Review all weld filler metal CMTR's to identify other heat numbers received with more than one lot number.
 - b. Sample weld issue slips for covered electrodes to assure record data includes size, type, and heat number, as a minimum.
 - c. Review WCP-3 to effect segregation of covered electrodes by type.
- RHG&A:
- a. Review HJK weld filler metal disbursal system and audits of the system, to verify that filler metals were adequately controlled by type and size during the time period in which the heats in question were used.
 - b. Review HJK sample.
 - c. Review draft WCP-3.
- CG&E:
- a. Present HJK report to the National Board.
 - b. Review/sign WCP-3 for issue.
 - c. Present WCP-3 to the National Board.

SCHEDULE

<u>Responsibility</u>	<u>Estimated Completion</u>	<u>Actual Completion</u>
<u>HJK:</u> a.		November 30, 1982
b.		March 9, 1983
c.		March 16, 1983
<u>RHG&A:</u> a.		January 14, 1983
b.		March 10, 1983
c.		March 17, 1983
<u>CG&E:</u> a.		March 10, 1983
b.	April 5, 1983	11
c.	April 5, 1983	11

CURRENT STATUS

<u>HJK:</u> a.	Completed.	
b.	Completed.	
c.	Completed. Revised procedure issued for signature cycle.	
<u>RHG&A:</u> a.	Completed.	
b.	Completed.	
<u>CG&E:</u> a.	Completed.	11
b.	In process. Schedule extended to incorporate CG&E comments.	11
c.	Awaiting issue of revised procedure.	

NATIONAL BOARD TASKS

Task No.	Description
NBT-25	Generic NR's

NATIONAL BOARD FINDINGS
(Interim Report #7, Item 3.3)

- "3.3.1 The National Board Audit Team discussed with HJK personnel the use of the Generic NR. This entity was devised and first appeared in ZAPO-5, Rev. 2, TCN #5-7. The National Board does not understand either the intent of or need for a Generic NR.
- 3.3.2 TCN #5-7 has been reviewed and the National Board Audit Team has several questions: (1) Does each Generic NR have a corresponding Generic Disposition? (2) Are Generic NR's dispositioned as other NR's, i.e., "accept as is", "reject", etc.? (3) If Generic NR's are created and processed as any other NR, why have them? (4) How does the dispositioner know when to disposition an NR with a Generic Disposition? (5) HJK's QA manual, QAP-16, Rev. 9, does not discuss the Generic NR. Will this be revised? (6) How does the AI get in the Generic Disposition cycle?
- 3.3.3 The National Board Audit Team further is of the opinion that if nonconforming conditions are such that a special NR system has to be created to handle them, then the proper vehicle to correct these conditions is by issuance of either a stop work order or a corrective action request, both of which are described in the HJK Quality Assurance Manual."

SUMMARY

The National Board Audit Team has questioned the use of Generic NR's; i.e., Generic Nonconformances and Generic Dispositions.

CG&E RESPONSE
(Interim Report #7, Item 3.3)

"CG&E understand the National Board Audit Team's concerns regarding the use of Generic NR's. CG&E will make arrangements for a meeting to be held between CG&E, HJK and the National Board to discuss these concerns and identify an action plan for resolution."

ACTION PLAN

In preparation.

SCHEDULE

In preparation.

CURRENT STATUS

The National Board Audit Team's concerns were discussed in a March 22, 1983 meeting. Specific concerns have been identified in CAR's and QAP-16. Additional discussions with the Audit Team are scheduled for the week of April 4, 1983, with an Action Plan to be determined.

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