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SUBJECT: Forwards Books 1 & 2 of "ISI Outage Summary Rept SSES Unit 1 8th Refuel Outage," completed on 950714.

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PP&L Pennsylvania Power & Light Company
Two North Ninth Street • Allentown, PA 18101-1179 • 215/774-5151

Robert G. Byram
Senior Vice President-Nuclear
610/774-7502
Fax: 610/774-5019

AUG 04 1995

U.S. Nuclear Regulatory Commission
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SUSQUEHANNA STEAM ELECTRIC STATION
UNIT 1 EIGHTH REFUELING AND INSPECTION OUTAGE
ISI SUMMARY REPORT
PLA-4343 FILE R41-2 Docket No 50-387

Attached for your use is a copy of the Susquehanna Steam Electric Station Inservice Inspection Outage Summary Report for the Unit 1 Eighth Refueling and Inspection Outage. A copy of this report has also been sent to the Commonwealth of Pennsylvania.

If you have any questions, please contact C. T. Coddington at (610) 774-7531.

Very truly yours,

R. G. Byram

Attachment

cc: NRC Region I (w/o)
Ms. M. Banerjee NRC Sr. Resident Inspector-SSES (w/o)
Mr. C. Poslusny, Jr. NRC Sr. Project Manager-OWFN (w/o)

A047 1/1

INSERVICE INSPECTION

OUTAGE SUMMARY REPORT

Pennsylvania Power & Light Company
Two North Ninth Street
Allentown, PA 18101-1179

COVER PAGE

Susquehanna Steam Electric Station
P.O. Box 467
Berwick, PA 18603

UNIT 1-8TH REFUEL OUTAGE

COMPLETION DATE - July 14, 1995

COMMERCIAL SERVICE DATE - June 8, 1983

COPY
BOOK 2 OF 2

Docket # _____

Accession # _____

Date _____ of Ltr

Regulatory Docket File

MODIFICATION INSTALLATION GROUP

NIS-2 FORMS

WORK ABSTRACT

The Modification Installation Group is responsible for preparing Construction Work Authorizations (work packages) for fabrication and installation of design changes in accordance with ASME Section XI and the National Board Inspection Code. This work is documented on NIS-2 Forms, or on R-1 Forms, which are submitted herewith.

MODIFICATION INSTALLATION GROUP

Design Change Packages for ASME Section XI (Class 1, 2 and 3), and the National Board Inspection Code, installed in Unit 1 since the completion of the Seventh Refueling Outage through completion of the Eighth Refueling Outage are summarized below:

DESIGN CHANGE PACKAGE NUMBER	SYSTEM / CLASS	DESCRIPTION
90-9095	125A III	Modify various pipe supports
94-3018	139 *	Install sight glasses in G condensate demineralizer
94-3021A	139 *	Install sight glasses in A condensate demineralizer
94-3021D	139 *	Install sight glasses in D condensate demineralizer
94-3021E	139 *	Install sight glasses in E condensate demineralizer
94-3021F	139 *	Install sight glasses in F condensate demineralizer
93-3090A, B, C & D	149A II	Replace bonnets on valves 151F031A, B, C & D
93-3092A & B	151A II	Replace bonnets on valves 152F003A, B, C & D
93-3077	152B II	Replace disc in valve HV-155F001
89-9153B	154A III	Modify various pipe supports
94-3023A & D	154A III	Installed new piping to RHR Pump Motor Oil Coolers
93-3069	155B II	Modify various pipe supports
93-3059A, B & C	162A I	Installed reactor water level condensing chambers
94-9088	164A I	Modified pipe support SP-DCA-151-H2008
95-9025	173A II	Removed valve actuator supports
89-3018D	173A II	Installation of new CRM piping
93-3086	184 *	Added nozzles in 1T105A
93-3086	184 *	Added nozzles in 1T105B

* Repair of an ASME section VIII vessel in a non-nuclear system.

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Pennsylvania Power & Light Co. (Name) — Date May 5, 1995

Two North Ninth St., Allentown, PA 18101 (Address) — Sheet 1 of 1

2. Plant Susquehanna Steam Electric Station (Name) — Unit One

PO Box 467, Berwick, PA 18603 (Address) — DCP 90-9095, WA C33306, C33307 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by Pennsylvania Power & Light Co. (Name) — Type Code Symbol Stamp None

Two North Ninth St., Allentown, PA 18101 (Address) — Authorization No. N/A

Expiration Date N/A

4. Identification of System CONTAINMENT INSTRUMENT GAS SYSTEM 125A CLASS III

5. (a) Applicable Construction Code III 19 71 Edition, thru W'72 Addenda, _____ Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 80 thru W'80 and IWF-7000, Winter 1982 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
PIPE SUPPORT	BECHTEL	N/A	N/A	SP-CCC-102-H1	1982	REPAIRED	NO
PIPE SUPPORT	BECHTEL	N/A	N/A	SP-CCC-139-H2016	1982	REPLACED	NO
PIPE SUPPORT	BECHTEL	N/A	N/A	SP-HCC-139-H2003	1982	REPLACED	NO
PIPE SUPPORT	PP+L	N/A	N/A	SP-HCC-139-H2003	1994	REPLACEMENT	NO
PIPE SUPPORT	BECHTEL	N/A	N/A	SP-CCC-101-H2004	1982	REPLACED	NO

7. Description of Work Pipe supports were modified and repaired to support piping rework

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ NONE REQUIRED
Other ☐ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets i recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks This NIS-2 is being submitted to report pipe support work that should have been included in an
Applicable Manufacturer's Data Reports to be attached
NIS-2, for system 125A-III, previously submitted with the Unit 1 Seventh Outage Summary Report.

CERTIFICATION OF COMPLIANCE

We certify that the statements made in the report are correct and this REPLACEMENT conforms to the rules of the ASME Code, Section XI.
repair or replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed [signature] Date 5/5/95 , 19 95
5/5/95 Owner or Owner's Designee, Title VP-Nuc Operations

CERTIFICATION OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of PENNSYLVANIA and employed by ARKWRIGHT MUTUAL INSURANCE CO. of WALTHAM, MASSACHUSETTS have inspected the components described in this Owner's Report during the period 9-27-93 to 10-30-93 and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[signature] Commissions NB7866 PA. WC24619 ANII
Inspector's Signature National Board, State, Province, and Endorsements

Date May 5 19 95

FORM R-1, REPORT OF WELDED [X] REPAIR OR [ ] ALTERATION 139
as required by the provisions of the National Board Inspection Code

1. Work performed by Pennsylvania Power and Light (name of repair or alteration organization) DCP 94-3018 / WA# C43803 (P.O. no., job no., etc.)
Two North Ninth Street, Allentown, Pa. 18101 (address)

2. Owner Pennsylvania Power and Light (name)
Two North Ninth Street, Allentown, Pa. 18101 (address)

3. Location of installation Susquehanna Steam Electric Station (name)
P.O. Box 467, Berwick, Pa. 18603 (address)

4. Unit Identification: Condensate Demineralizer (boiler, pressure vessel) Name of original manufacturer Allied Steel Products Corporation

5. Identifying nos: W-8496-C (mfr's serial no.) 7734 (original National Board no.) PA469348 (jurisdiction no.) 1F-106G (other) 1975 (year built)

6. Description of work: Installed two J.G. Papailias Co. Inc., Sightglasses Part# NW125DW/HP/316/CS/CS/TBS/NAS (use back, seperate sheet, or sketch if necessary)

Pressure test, if applied 520 psi

7. Replacement Parts. Attached are Manufacturers' Partial Data Reports properly indentified and signed by Authorized Inspectors for the following items of this report
NONE

(name of part, item number, mfr's. name and identifying stamp)

8. Remarks:
NONE

This form may be obtained from the National Board of Boiler and Pressure Vessel Inspectors, 1055 Crupper Ave., Columbus, OH 43229 NB-66 Rev.5

DESIGN CERTIFICATION

The undersigned certifies that the statements made in this report are correct and that the design changes described in this report conform to the requirements of the National Board Inspection Code.

ASME Certificate of Authorization no. _____ to use the _____ symbol expires _____, 19____.

Date _____, 19____ _____ Signed _____
(name of organization) (authorized representative)

CERTIFICATE OF REVIEW OF DESIGN CHANGE

The undersigned, holding a valid Commision issued by the National Board of Boiler and Pressure Vessel Inspectors and certificate of competency issued by the state or province of _____ and employed by _____ of _____ has examined the design change as described in this report and verifies that to the best of his knowledge and belief such change complies with the applicable requirements of the National Board Inspection Code. By signing this certificate, neither the undersigned nor his employer makes any warrenty, expressed or implied, concerning the work described in this report. Furthermore, neither the undersigned nor my employer shall be liable in any manner for any personal injury, property damage or loss of any kind arising from or connected with this inspection, except such liability as may be provided in a policy of in surance which the undersigned's insurance company may issue upon said object and then only in accordance with the terms of said policy.

Date _____, 19____ Signed _____ Commissions _____
(Authorized Inspector) (National Board (incl. endorsements), state, prov., and no.)

CONSTRUCTION CERTIFICATION

The undersigned certifies that the statements made in this report are correct and that all construction and workmanship on this REPAIR conform to the National Board Inspection Code.
(repair or alteration)

Certificate of Authorization no. N/A to use the N/A symbol expires N/A, 19____

Date 5/31, 19 95 Pennsylvania Power and Light Signed _____
(name of repair organization) (authorized representative)

CERTIFICATE OF INSPECTION

The undersigned, holding a valid Commision issued by The National Board of Boiler and Pressure Vessel Inspectors and certificate of competency issued by the state or province of PENNSYLVANIA and employed by ARKWRIGHT MUTUAL INSURANCE CO. of WALTHAM, MASS. has inspected the work described in this report on Mar 4, 19 95 and state that to the best of my knowledge and belief this work has been done in accordance with the National Board Inspection Code. By signing this certificate, neither the undersigned nor my employer makes any warrenty, expressed or implied, concerning the work described in this report. Furthermore, neither the undersigned nor my employer shall be liable in any manner for any personal injury, property damage or loss of any kind arising from or connected with this inspection, except such liability as may be provided in a policy of in surance which the undersigned's insurance company may issue upon said object and then only in accordance with the terms of said policy.

Date 5 June, 19 95 Signed _____ Commissions PA WC 24619
(Authorized Inspector) (National Board (incl. endorsements), state, prov., and no.)

FORM R-1, REPORT OF WELDED [X] REPAIR OR [ ] ALTERATION
as required by the provisions of the National Board Inspection Code

1. Work performed by Pennsylvania Power and Light (name of repair or alteration organization) DCP 94-3021A / WA# C43506 (P.O. no., job no., etc.)
Two North Ninth Street, Allentown, Pa. 18101 (address)

2. Owner Pennsylvania Power and Light (name)
Two North Ninth Street, Allentown, Pa. 18101 (address)

3. Location of installation Susquehanna Steam Electric Station (name)
P.O. Box 467, Berwick, Pa. 18603 (address)

4. Unit Identification: Condensate Demineralizer (boiler, pressure vessel) Name of original manufacturer Allied Steel Products Corporation

5. Identifying nos: K74-70 (mfr's serial no.) 7590 (original National Board no.) PA469342 (jurisdiction no.) 1F-106A (other) 1975 (year built)

6. Description of work: Installed two J.G. Papailias Co. Inc., Sightglasses Part# NW125DW/HP/316/CS/CS/TBS/NAS (use back, seperate sheet, or sketch if necessary)

Pressure test, if applied 550 psi

7. Replacement Parts. Attached are Manufacturers' Partial Data Reports properly indentified and signed by Authorized Inspectors for the following items of this report
NONE
(name of part, item number, mfr's. name and identifying stamp)

8. Remarks:
NONE

DESIGN CERTIFICATION

The undersigned certifies that the statements made in this report are correct and that the design changes described in this report conform to the requirements of the National Board Inspection Code.

ASME Certificate of Authorization no. _____ to use the _____ symbol expires _____, 19____.

Date _____, 19____ _____ (name of organization) Signed _____ (authorized representative)

CERTIFICATE OF REVIEW OF DESIGN CHANGE

The undersigned, holding a valid Commision issued by the National Board of Boiler and Pressure Vessel Inspectors and certificate of competency issued by the state or province of _____ and employed by _____ of _____ has examined the design change as described in this report and verifies that to the best of his knowledge and belief such change complies with the applicable requirements of the National Board Inspection Code. By signing this certificate, neither the undersigned nor his employer makes any warrenty, expressed or implied, concerning the work described in this report. Furthermore, neither the undersigned nor my employer shall be liable in any manner for any personal injury, property damage or loss of any kind arising from or connected with this inspection, except such liability as may be provided in a policy of in surance which the undersigned's insurance company may issue upon said object and then only in accordance with the terms of said policy.

Date _____, 19____ Signed _____ (Authorized Inspector) Commissions _____ (National Board (incl. endorsements), state, prov., and no.)

CONSTRUCTION CERTIFICATION

The undersigned certifies that the statements made in this report are correct and that all construction and workmanship on this REPAIR (repair or alteration) conform to the National Board Inspection Code.

Certificate of Authorization no. N/A to use the N/A symbol expires N/A, 19____

Date 5/31, 19 95 Pennsylvania Power and Light (name of repair organization) Signed _____ (authorized representative)

CERTIFICATE OF INSPECTION

The undersigned, holding a valid Commision issued by The National Board of Boiler and Pressure Vessel Inspectors and certificate of competency issued by the state or province of PENNSYLVANIA and employed by ARKWRIGHT MUTUAL INSURANCE CO. of WALTHAM, MASS. has inspected the work described in this report on March 5, 19 95 and state that to the best of my knowledge and belief this work has been done in accordance with the National Board Inspection Code. By signing this certificate, neither the undersigned nor my employer makes any warrenty, expressed or implied, concerning the work described in this report. Furthermore, neither the undersigned nor my employer shall be liable in any manner for any personal injury, property damage or loss of any kind arising from or connected with this inspection, except such liability as may be provided in a policy of in surance which the undersigned's insurance company may issue upon said object and then only in accordance with the terms of said policy.

Date June 5, 19 95 Signed _____ (Authorized Inspector) Commissions PA WC 24619 (National Board (incl. endorsements), state, prov., and no.)

FORM R-1, REPORT OF WELDED [X] REPAIR OR [ ] ALTERATION 139
as required by the provisions of the National Board Inspection Code

1. Work performed by Pennsylvania Power and Light (name of repair or alteration organization) DCP 94-3021D / WA# C43452 (P.O. no., job no., etc.)
Two North Ninth Street, Allentown, Pa. 18101 (address)

2. Owner Pennsylvania Power and Light (name)
Two North Ninth Street, Allentown, Pa. 18101 (address)

3. Location of installation Susquehanna Steam Electric Station (name)
P.O. Box 467, Berwick, Pa. 18603 (address)

4. Unit Identification: Condensate Demineralizer (boiler, pressure vessel) Name of original manufacturer Allied Steel Products Corporation

5. Identifying nos: K74-70 (mfr's serial no.) | 7583 (original National Board no.) | PA469345 (jurisdiction no.) | 1F-106D (other) | 1975 (year built)

6. Description of work: Installed two J.G. Papailias Co. Inc., Sightglasses Part# NW125DW/HP/316/CS/CS/TBS/NAS (use back, separate sheet, or sketch if necessary)

Pressure test, if applied 500 psi

7. Replacement Parts. Attached are Manufacturers' Partial Data Reports properly indentified and signed by Authorized Inspectors for the following items of this report
NONE
(name of part, item number, mfr's. name and identifying stamp)

8. Remarks:
NONE

DESIGN CERTIFICATION

The undersigned certifies that the statements made in this report are correct and that the design changes described in this report conform to the requirements of the National Board Inspection Code.

ASME Certificate of Authorization no. _____ to use the _____ symbol expires _____, 19____.

Date _____, 19____ _____ Signed _____
(name of organization) (authorized representative)

CERTIFICATE OF REVIEW OF DESIGN CHANGE

The undersigned, holding a valid Commision issued by the National Board of Boiler and Pressure Vessel Inspectors and certificate of competency issued by the state or province of _____ and employed by _____ of _____ has examined the design change as described in this report and verifies that to the best of his knowledge and belief such change complies with the applicable requirements of the National Board Inspection Code. By signing this certificate, neither the undersigned nor his employer makes any warrenty, expressed or implied, concerning the work described in this report. Furthermore, neither the undersigned nor my employer shall be liable in any manner for any personal injury, property damage or loss of any kind arising from or connected with this inspection, except such liability as may be provided in a policy of in surance which the undersigned's insurance company may issue upon said object and then only in accordance with the terms of said policy.

Date _____, 19____ Signed _____ Commissions _____
(Authorized Inspector) (National Board (incl. endorsements), state, prov., and no.)

CONSTRUCTION CERTIFICATION

The undersigned certifies that the statements made in this report are correct and that all construction and workmanship on this REPAIR conform to the National Board Inspection Code.
(repair or alteration)

Certificate of Authorization no. N/A to use the N/A symbol expires N/A, 19____

Date 5/31, 19 95 Pennsylvania Power and Light Signed _____
(name of repair organization) (authorized representative)

CERTIFICATE OF INSPECTION

The undersigned, holding a valid Commision issued by The National Board of Boiler and Pressure Vessel Inspectors and certificate of competency issued by the state or province of PENNSYLVANIA and employed by ARKWRIGHT MUTUAL INSURANCE CO. of WALTHAM, MASS. has inspected the work described in this report on March 5, 19 95 and state that to the best of my knowledge and belief this work has been done in accordance with the National Board Inspection Code. By signing this certificate, neither the undersigned nor my employer makes any warrenty, expressed or implied, concerning the work described in this report. Furthermore, neither the undersigned nor my employer shall be liable in any manner for any personal injury, property damage or loss of any kind arising from or connected with this inspection, except such liability as may be provided in a policy of in surance which the undersigned's insurance company may issue upon said object and then only in accordance with the terms of said policy.

Date June 5, 19 95 Signed _____ Commissions PA WC 24619
(Authorized Inspector) (National Board (incl. endorsements), state, prov., and no.)

FORM R-1, REPORT OF WELDED [X] REPAIR OR [ ] ALTERATION
as required by the provisions of the National Board Inspection Code

1. Work performed by Pennsylvania Power and Light (name of repair or alteration organization) DCP 94-3021E / WA# C43434 (P.O. no., job no., etc.)
Two North Ninth Street, Allentown, Pa. 18101 (address)

2. Owner Pennsylvania Power and Light (name)
Two North Ninth Street, Allentown, Pa. 18101 (address)

3. Location of installation Susquehanna Steam Electric Station (name)
P.O. Box 467, Berwick, Pa. 18603 (address)

4. Unit identification: Condensate Demineralizer (boiler, pressure vessel) Name of original manufacturer Allied Steel Products Corporation

5. Identifying nos: W-8496-B (mfr's serial no.) 7717 (original National Board no.) PA469346 (jurisdiction no.) 1F-106E (other) 1975 (year built)

6. Description of work: Installed two J.G. Papailias Co. Inc., Sightglasses Part# NW125DW/HP/316/CS/CS/TBS/NAS (use back, seperate sheet, or sketch if necessary)

Pressure test, if applied 500 psi

7. Replacement Parts. Attached are Manufacturers' Partial Data Reports properly indentified and signed by Authorized Inspectors for the following items of this report
NONE
(name of part, item number, mfr's. name and identifying stamp)

8. Remarks:
NONE

DESIGN CERTIFICATION

The undersigned certifies that the statements made in this report are correct and that the design changes described in this report conform to the requirements of the National Board Inspection Code.

ASME Certificate of Authorization no. _____ to use the _____ symbol expires _____, 19____.

Date _____, 19____ _____ Signed _____
(name of organization) (authorized representative)

CERTIFICATE OF REVIEW OF DESIGN CHANGE

The undersigned, holding a valid Commision issued by the National Board of Boiler and Pressure Vessel Inspectors and certificate of competency issued by the state or province of _____ and employed by _____ of _____ has examined the design change as described in this report and verifies that to the best of his knowledge and belief such change complies with the applicable requirements of the National Board Inspection Code. By signing this certificate, neither the undersigned nor his employer makes any warrenty, expressed or implied, concerning the work described in this report. Furthermore, neither the undersigned nor my employer shall be liable in any manner for any personal injury, property damage or loss of any kind arising from or connected with this inspection, except such liability as may be provided in a policy of in surance which the undersigned's insurance company may issue upon said object and then only in accordance with the terms of said policy.

Date _____, 19____ Signed _____ Commissions _____
(Authorized Inspector) (National Board (incl. endorsements), state, prov., and no.)

CONSTRUCTION CERTIFICATION

The undersigned certifies that the statements made in this report are correct and that all construction and workmanship on this REPAIR conform to the National Board Inspection Code.
(repair or alteration)

Certificate of Authorization no. N/A to use the N/A symbol expires N/A, 19____

Date 5/31, 1995 Pennsylvania Power and Light Signed _____
(name of repair organization) (authorized representative)

CERTIFICATE OF INSPECTION

The undersigned, holding a valid Commision issued by The National Board of Boiler and Pressure Vessel Inspectors and certificate of competency issued by the state or province of PENNSYLVANIA and employed by ARKWRIGHT MUTUAL INSURANCE CO. of WALTHAM, MASS. has inspected the work described in this report on March 5, 1995 and state that to the best of my knowledge and belief this work has been done in accordance with the National Board Inspection Code. By signing this certificate, neither the undersigned nor my employer makes any warrenty, expressed or implied, concerning the work described in this report. Furthermore, neither the undersigned nor my employer shall be liable in any manner for any personal injury, property damage or loss of any kind arising from or connected with this inspection, except such liability as may be provided in a policy of in surance which the undersigned's insurance company may issue upon said object and then only in accordance with the terms of said policy.

Date June 5, 1995 Signed _____ Commissions PA WC 24619
(Authorized Inspector) (National Board (incl. endorsements), state, prov., and no.)

FORM R-1, REPORT OF WELDED [X] REPAIR OR [ ] ALTERATION 139
as required by the provisions of the National Board Inspection Code

1. Work performed by Pennsylvania Power and Light (name of repair or alteration organization) DCP 94-3021F / WA# C43419 (P.O. no., job no., etc.)
Two North Ninth Street, Allentown, Pa. 18101 (address)

2. Owner Pennsylvania Power and Light (name)
Two North Ninth Street, Allentown, Pa. 18101 (address)

3. Location of installation Susquehanna Steam Electric Station (name)
P.O. Box 467, Berwick, Pa. 18603 (address)

4. Unit Identification: Condensate Demineralizer (boiler, pressure vessel) Name of original manufacturer Allied Steel Products Corporation

5. Identifying nos: W-8496-A (mfr's serial no.) 7729 (original National Board no.) PA469347 (jurisdiction no.) 1F-106F (other) 1975 (year built)

6. Description of work: Installed two J.G. Papailias Co. Inc., Sightglasses Part# NW125DW/HP/316/CS/CS/TBS/NAS (use back, seperate sheet, or sketch if necessary)

Pressure test, if applied 550 : psi

7. Replacement Parts. Attached are Manufacturers' Partial Data Reports properly indentified and signed by Authorized Inspectors for the following items of this report
NONE

(name of part, item number, mfr's. name and identifying stamp)

8. Remarks:
NONE

This form may be obtained from the National Board of Boiler and Pressure Vessel Inspectors, 1055 Crupper Ave., Columbus, OH 43229 NB-65 Rev. 5

DESIGN CERTIFICATION

The undersigned certifies that the statements made in this report are correct and that the design changes described in this report conform to the requirements of the National Board Inspection Code.

ASME Certificate of Authorization no. _____ to use the _____ symbol expires _____, 19____.

Date _____, 19____ _____ Signed _____
(name of organization) (authorized representative)

CERTIFICATE OF REVIEW OF DESIGN CHANGE

The undersigned, holding a valid Commision issued by the National Board of Boiler and Pressure Vessel Inspectors and certificate of competency issued by the state or province of _____ and employed by _____ of _____ has examined the design change as described in this report and verifies that to the best of his knowledge and belief such change complies with the applicable requirements of the National Board Inspection Code. By signing this certificate, neither the undersigned nor his employer makes any warrenty, expressed or implied, concerning the work described in this report. Furthermore, neither the undersigned nor my employer shall be liable in any manner for any personal injury, property damage or loss of any kind arising from or connected with this inspection, except such liability as may be provided in a policy of in surance which the undersigned's insurance company may issue upon said object and then only in accordance with the terms of said policy.

Date _____, 19____ Signed _____ Commissions _____
(Authorized Inspector) (National Board (incl. endorsements), state, prov., and no.)

CONSTRUCTION CERTIFICATION

The undersigned certifies that the statements made in this report are correct and that all construction and workmanship on this REPAIR conform to the National Board Inspection Code.
(repair or alteration)

Certificate of Authorization no. N/A to use the N/A symbol expires N/A, 19____

Date 5/31, 1995 Pennsylvania Power and Light Signed _____
(name of repair organization) (authorized representative)

CERTIFICATE OF INSPECTION

The undersigned, holding a valid Commision issued by The National Board of Boiler and Pressure Vessel Inspectors and certificate of competency issued by the state or province of PENNSYLVANIA and employed by ARKWRIGHT MUTUAL INSURANCE CO. of WALTHAM, MASS. has inspected the work described in this report on March 5, 1995 and state that to the best of my knowledge and belief this work has been done in accordance with the National Board Inspection Code. By signing this certificate, neither the undersigned nor my employer makes any warrenty, expressed or implied, concerning the work described in this report. Furthermore, neither the undersigned nor my employer shall be liable in any manner for any personal injury, property damage or loss of any kind arising from or connected with this inspection, except such liability as may be provided in a policy of in surance which the undersigned's insurance company may issue upon said object and then only in accordance with the terms of said policy.

Date June 5, 19 95 Signed _____ Commissions LA WC 24619
(Authorized Inspector) (National Board (incl. endorsements), state, prov., and no.)

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Pennsylvania Power & Light Co. (Name) — Date May 8, 1995

Two North Ninth St., Allentown, PA 18101 (Address) — Sheet 1 of 2

2. Plant Susquehanna Steam Electric Station (Name) — Unit One

PO Box 467, Berwick, PA 18603 (Address) — DCP 93-3090A,B,C,&D Work Authorizations C43725, C43726, C43727, C43728 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by Pennsylvania Power & Light Co. (Name) — Type Code Symbol Stamp None

Two North Ninth St., Allentown, PA 18101 (Address) — Authorization No. N/A

Expiration Date N/A

4. Identification of System Residual Heat Removal System 149A Class II

5. (a) Applicable Construction Code III 19 71 Edition, thru W'72 Addenda, N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
BONNET	MCC PACIFIC VALVES	S/N XN050	N/A	151F031A	1976	REPLACED	YES
BONNET	CONTROL COMPONENTS INC.	M618920-S/N3	N/A	151F031A	1994	REPLACEMENT	YES
BONNET	MCC PACIFIC VALVES	S/N XN051	N/A	151F031B	1976	REPLACED	YES
BONNET	CONTROL COMPONENTS INC.	M618920-S/N2	N/A	151F031B	1994	REPLACEMENT	YES
BONNET	MCC PACIFIC VALVES	S/N XN052	N/A	151F031C	1976	REPLACED	YES
BONNET	CONTROL COMPONENTS INC.	M618920-S/N1	N/A	151F031C	1994	REPLACEMENT	YES

7. Description of Work Replace Bonnets on RHR Discharge Check Valves

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☑ SE-149-301
Other ☐ Pressure See Remarks psi Test Temp. See Remarks °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets I recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks CODE DATA REPORT(S) ATTACHED

Applicable Manufacturer's Data Reports to be attached

151F031A - Pressure: 310 p.s.i. / Temperature: 68°F, 151F031B - Pressure: 265 p.s.i. / Temperature: 69.3°F, 151F031C - Pressure: 235 p.s.i. / Temperature: 71.5°F, 151F031D - Pressure: 270 p.s.i. / Temperature: 66.3°F

CERTIFICATION OF COMPLIANCE

We certify that the statements made in the report are correct and this REPLACEMENT (repair or replacement) conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed [signature] Date 5/31 , 19 95

Owner or Owner's Designee, Title VP-Nuc Operations

CERTIFICATION OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of PENNSYLVANIA and employed by ARKWRIGHT MUTUAL INSURANCE CO. of WALTHAM, MASSACHUSETTS have inspected the components described in this Owner's Report during the period 8/30/94 to 3/13/95, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[signature] Commissions NB7966 PA WC 24619 AN11

Inspector's Signature National Board, State, Province, and Endorsements

Date June 8 19 95

FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL NUCLEAR PARTS AND APPURTENANCES*

As Required by the Provisions of the ASME Code, Section III

Not to Exceed One Day's Production

1. Manufactured and certified by *Control Components Inc. 22591 Avenida Empresa, Rancho Santa Margarita, CA 92688*
(name and address of Certificate Holder)

2. Manufactured for *PENNSYLVANIA POWER & LIGHT CO., ALLENTOWN, PA*
(name and address of purchaser)

3. Location of installation *SUSQUEHANNA STEAM ELECTRIC STATION, 5 MILES N.E. OF BERWICK, PA ON ROUTE 11*
(name and address)

4. Type *743800001* (drawing no.) *SA-105* (mat'l spec. no.) *70,000 PSI* (tensile strength) *N/A* (CRN) *1994* (year built)

5. ASME Code, Section III, Division 1: *1971* (edition) *WINTER 1972* (addenda date) *2* (class) *N/A* (Code Case no.)

6. Fabricated in accordance with Const. Spec. (Div. 2 only) *N/A* (no.) Revision *N/A* Date *N/A*

---> 7. Remarks *PART FOR A 20" PV CHECK VALVE.*
CCI WORK ORDER #652001/2-001
CCI DWG. B. O. M. P/N 743802001.

8. Nom. thickness (in.) *3.47"* Min. design thickness (in.) *3.44"* Dia. ID (ft & in.) *29.4"* Length overall (ft & in.) N/A

9. When applicable, Certificate Holders' Data Reports are attached for each item of this report:

	Part or Apurtenance Serial Number	National Board No. in Numerical Order
(1.)	*M618920 - S/N 1*	*N/A*
(2.)	*M618920 - S/N 2*	*N/A*
(3.)	*M618920 - S/N 3*	*N/A*
(4.)	*M618920 - S/N 4*	*N/A*
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	Part or Apurtenance Serial Number	National Board No. in Numerical Order
(26.)		
(27.)		
(28.)		
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(50.)		

10. Design pressure *720* psi. Temp. *100* Deg. F Hydro. test pressure *N/A* at temp. Deg. F

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11, (2) information in items 2 and 3 on this Data Report is included on each sheet, (3) each sheet is numbered and the number to sheets is recorded at the top of this form.

This form (E00040) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300.

PAGE 1-B-3

Form N-2

FORM N-2 (Back – Pg. 2 of 2)

Certificate Holder's Serial Nos. SEE PAGE 1 through N/A

CERTIFICATION OF DESIGN

Design specification certified by RAJAN V. PAREKH (when applicable) P.E. State PA Reg. no. 29882-E

Design report * certified by N/A (when applicable) P.E. State N/A Reg. no. N/A

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this (these) VALVE BONNET CAP conforms to the rules of construction of the ASME Code, Section III, Division 1.

NPT Certificate of Authorization No. 2696 ** Expires JUNE 7, 1994

Date 9/16/94 Name CONTROL COMPONENTS INC. (NPT Certificate Holder) Signed (Authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of CALIFORNIA and employed by HARTFORD STEAM BOILER INSPECTION AND INSURANCE COMPANY of HARTFORD, CONNECTICUT have inspected these items described in this Data Report on 9-16-94, and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code Section III, Division 1. Each part listed has been authorized for stamping on the date shown above.

By signing this certificate, neither the inspector nor his employer makes warranty, expressed or implied, concerning the equipment described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Date 9-16-94 Signed (Authorized Inspector) Commissions Ca 1494 (Nat'l Bd. (including endorsement) and state or prov., and no.)

** REFER TO ATTACHED "LETTER OF EXTENSION" FROM THE ASME COMMITTEE.

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner: Pennsylvania Power & Light Co. (Name) — Date: May 8, 1995

Two North Ninth St., Allentown, PA 18101 (Address) — Sheet 2 of 2

2. Plant: Susquehanna Steam Electric Station (Name) — Unit: One

PO Box 467, Berwick, PA 18603 (Address) — DCP 93-3090A,B,C,&D Work Authorizations C43725, C43726, C43727, C43728 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by: Pennsylvania Power & Light Co. (Name) — Type Code Symbol Stamp: None

Two North Ninth St., Allentown, PA 18101 (Address) — Authorization No.: N/A

Expiration Date: N/A

4. Identification of System: Residual Heat Removal System 149A Class II

5. (a) Applicable Construction Code: III 19 71 Edition, thru W'72 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
BONNET	MCC PACIFIC VALVES	S/N XN049	N/A	151F031D	1976	REPLACED	YES
BONNET	CONTROL COMPONENTS INC.	M618920-S/N4	N/A	151F031D	1994	REPLACEMENT	YES

Codes and Standards
Accreditation and Certification
Tel. 212-605-3361
Fax 212-605-8713

The American Society of Mechanical Engineers
345 East 47th Street
New York, NY 10017

June 2, 1994

Mr. Robert E. Topping; Mgr. QA
CONTROL COMPONENTS INC.
22591 Avenida Empresa
Rancho Santa Margarita, CA 92688

Subject: Extension of Expiration Date for ASME Certificates of Authorization for N & NPT (N-2695 & N-2696); Exp. 6/7/94

Dear Mr. Topping:

This letter is to serve as an extension of expiration date for the subject Certificate for which the current expiration date is June 7, 1994.

Since the results of the ASME survey conducted on April 11-13, 1994 are presently being evaluated by the ASME, this extension will allow sufficient time for the evaluation to be completed. Therefore, this extension will expire upon the date of the completion of the evaluation of the results or on September 30, 1994 - whichever comes first.

Very truly yours,

Joseph A. Russo
Manager, Accreditation
(212) 605-3387

JAR/mn

cc: AIA-Hartford Steam Boiler/Leslie Skora
State of CA/John Lemire
Chmn., SC-NA
File/CMPT

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner: Pennsylvania Power & Light Co. (Name)
Two North Ninth St., Allentown, PA 18101 (Address)
Date: May 10, 1995
Sheet: 1 of 2

2. Plant: Susquehanna Steam Electric Station (Name)
PO Box 467, Berwick, PA 18603 (Address)
Unit: One
DCP 93-3092A&B Work Authorizations C43721, C43752, C43722, C43753 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by: Pennsylvania Power & Light Co. (Name)
Two North Ninth St., Allentown, PA 18101 (Address)
Type Code Symbol Stamp: None
Authorization No.: N/A
Expiration Date: N/A

4. Identification of System: Core Spray System 151A Class II

5. (a) Applicable Construction Code: III 19 71 Edition, thru W'72 Addenda, N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
BONNET	MCC PACIFIC VALVES	S/N XN131	N/A	152F003A	1976	REPLACED	YES
BONNET	CONTROL COMPONENTS INC.	M618930-S/N2	N/A	152F003A	1994	REPLACEMENT	YES
BONNET	MCC PACIFIC VALVES	S/N XN130	N/A	152F003C	1976	REPLACED	YES
BONNET	CONTROL COMPONENTS INC.	M618930-S/N1	N/A	152F003C	1994	REPLACEMENT	YES
BONNET	MCC PACIFIC VALVES	S/N XN129	N/A	152F003B	1976	REPLACED	YES
BONNET	CONTROL COMPONENTS INC.	M618930-S/N3	N/A	152F003B	1994	REPLACEMENT	YES

7. Description of Work: Replace Bonnets on Core Spray Discharge Check Valves

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☑ SE-151-301
Other ☐ Pressure See Remarks psi Test Temp. See Remarks °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets I recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks CODE DATA REPORT(S) ATTACHED

Applicable Manufacturer's Data Reports to be attached

152F003A&C - Pressure: 290 p.s.i. / Temperature: 96.8°F, 152F003B&D - Pressure: 299 p.s.i. /

Temperature: 67.6°F

CERTIFICATION OF COMPLIANCE

We certify that the statements made in the report are correct and this REPLACEMENT (repair or replacement) conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed [signature] Date 5/31 , 19 95

Owner or Owner's Designee, Title VP-Nuc Operations

CERTIFICATION OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of PENNSYLVANIA and employed by ARKWRIGHT MUTUAL INSURANCE CO. of WALTHAM, MASSACHUSETTS have inspected the components described in this Owner's Report during the period 9/2/94 to 3/30/95, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[signature] Commissions NB 7866 PA WC 24619 AN11

Inspector's Signature National Board, State, Province, and Endorsements

Date June 5 19 95

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner: Pennsylvania Power & Light Co. (Name)
Two North Ninth St., Allentown, PA 18101 (Address)

Date: May 10, 1995

Sheet 2 of 2

2. Plant: Susquehanna Steam Electric Station (Name)
PO Box 467, Berwick, PA 18603 (Address)

Unit: One

DCP 93-3092A&B Work Authorizations C43721, C43752, C43722, C43753 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by: Pennsylvania Power & Light Co. (Name)
Two North Ninth St., Allentown, PA 18101 (Address)

Type Code Symbol Stamp: None

Authorization No.: N/A

Expiration Date: N/A

4. Indentification of System: Core Spray System 151A Class II

5. (a) Applicable Construction Code III 19 71 Edition, thru W72 Addenda, N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
BONNET	MCC PACIFIC VALVES	S/N XN132	N/A	152F003D	1976	REPLACED	YES
BONNET	CONTROL COMPONENTS INC.	M618930-S/N4	N/A	152F003D	1994	REPLACEMENT	YES

Codes and Standards

The American Society of Mechanical Engineers

Accreditation and Certification
Tel. 212-605-3381
Fax 212-605-8713

345 East 47th Street
New York, NY 10017

June 2, 1994

Mr. Robert E. Topping; Mgr. QA
CONTROL COMPONENTS INC.
22591 Avenida Empresa
Rancho Santa Margarita, CA 92688

Subject: Extension of Expiration Date for ASME Certificates of Authorization for N & NPT (N-2695 & N-2696); Exp. 6/7/94

Dear Mr. Topping:

This letter is to serve as an extension of expiration date for the subject Certificate for which the current expiration date is June 7, 1994.

Since the results of the ASME survey conducted on April 11-13, 1994 are presently being evaluated by the ASME, this extension will allow sufficient time for the evaluation to be completed. Therefore, this extension will expire upon the date of the completion of the evaluation of the results or on September 30, 1994 - whichever comes first.

Very truly yours,

Joseph A. Russo
Manager, Accreditation
(212) 605-3387

JAR/mn

cc: AIA-Hartford Steam Boiler/Leslie Skora
State of CA/John Lemire
Chmn., SC-NA
File/CMPT

FORM N-2 CERTIFICATE HOLDERS' DATA REPORT FOR IDENTICAL NUCLEAR PARTS AND APPURTENANCES*

As Required by the Provisions of the ASME Code, Section III
Not to Exceed One Day's Production

1. Manufactured and certified by *Control Components Inc. 22591 Avenida Empresa, Rancho Santa Margarita, CA 92688*
(name and address of Certificate Holder)
2. Manufactured for *PENNSYLVANIA POWER & LIGHT CO., ALLENTOWN, PA*
(name and address of purchaser)
3. Location of installation *SUSQUEHANNA STEAM ELECTRIC STATION, 5 MILES N.E. OF BERWICK, PA. ON ROUTE 11*
(name and address)
4. Type *743800001* (drawing no.) *SA-105* (mat'l spec. no.) *70,000 PSI* (tensile strength) *N/A* (CRN) *1994* (year built)
5. ASME Code, Section III, Division 1: *1971* (edition) *WINTER 1972* (addenda date) *2* (class) *N/A* (Code Case no.)
6. Fabricated in accordance with Const. Spec. (Div. 2 only) *N/A* (no.) Revision *N/A* Date *N/A*
7. Remarks *PART FOR A 12" PV CHECK VALVE.*
CCI WORK ORDER #652001/2-003
CCI DWG. B. O. M. P/N 743801001.
8. Nom. thickness (in.) *2.47"* Min. design thickness (in.) *2.44"* Dia. ID (ft & in.) *22.9"* Length overall (ft & in.) N/A
9. When applicable, Certificate Holders' Data Reports are attached for each item of this report:

	Part or Apurtenance Serial Number	National Board No. In Numerical Order
(1.)	*M618930 – S/N 1*	*N/A*
(2.)	*M618930 – S/N 2*	*N/A*
(3.)	*M618930 – S/N 3*	*N/A*
(4.)	*M618930 – S/N 4*	*N/A*
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	Part or Apurtenance Serial Number	National Board No. In Numerical Order
(26.)		
(27.)		
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(50.)		

10. Design pressure *275* psi. Temp. *100* Deg. F Hydro. test pressure *N/A* at temp. Deg. F

*Supplemental information in the form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 x 11, (2) information in items 2 and 3 on this Data Report is included on each sheet, (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

This form (E00040) may be obtained from the Order Dept., ASME, 22 Law Drive, Box 2300, Fairfield, NJ 07007-2300.

Form N-2

FORM N-2 (Back – Pg. 2 of 2)

Certificate Holder's Serial Nos. SEE PAGE 1 through N/A

CERTIFICATION OF DESIGN

Design specification certified by RAJAN V. PAREKH (when applicable) P.E. State PA Reg. no. 29882-E

Design report * certified by N/A (when applicable) P.E. State N/A Reg. no. N/A

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that this (these) VALVE BONNET CAP conforms to the rules of construction of the ASME Code, Section III, Division 1.

NPT Certificate of Authorization No. 2696 ** Expires JUNE 7, 1994

Date [illegible] Name CONTROL COMPONENTS INC. (NPT Certificate Holder) Signed [signature] (Authorized representative)

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of CALIFORNIA and employed by HARTFORD STEAM BOILER INSPECTION AND INSURANCE COMPANY of HARTFORD, CONNECTICUT have inspected these items described in this Data Report on 9-12-94, and state that to the best of my knowledge and belief, the Certificate Holder has fabricated these parts or appurtenances in accordance with the ASME Code Section III, Division 1. Each part listed has been authorized for stamping on the date shown above.

By signing this certificate, neither the inspector nor his employer makes warranty, expressed or implied, concerning the equipment described in this Data Report. Furthermore, neither the inspector nor his employer shall be liable in any manner for any personal injury or property damage or loss of any kind arising from or connected with this inspection.

Date 9-12-94 Signed [signature] (Authorized Inspector) Commissions CA 1484 (Nat'l Bd. (including endorsement) and state or prov., and no.)

** REFER TO ATTACHED "LETTER OF EXTENSION" FROM THE ASME COMMITTEE.

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner: Pennsylvania Power & Light Co. (Name) — Date: May 30, 1995

Two North Ninth St., Allentown, PA 18101 (Address) — Sheet 1 of 1

2. Plant: Susquehanna Steam Electric Station (Name) — Unit: One

PO Box 467, Berwick, PA 18603 (Address) — PMR 93-3077, WA C43767 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by: Pennsylvania Power & Light Co. (Name) — Type Code Symbol Stamp: None

Two North Ninth St., Allentown, PA 18101 (Address) — Authorization No.: N/A

Expiration Date: N/A

4. Indentification of System: HIGH PRESSURE COOLANT INJECTION (HPCI) SYSTEM 152B CLASS II

5. (a) Applicable Construction Code: III 19 71 Edition, thru W'72 Addenda, _____ Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
VALVE DISC	ANCHOR DARLING	S/N 2 HT # 4353	NA	HV-155F001	1975	REPLACED	YES
VALVE DISC	ANCHOR DARLING	U6849	NA	HV-155F001	1994	REPLACEMENT	YES

7. Description of Work: INSTALL NEW DISC IN VALVE HV-155F001

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☑
Other ☐ Pressure 1160 psi Test Temp. 80 °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets I recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks CODE DATA REPORT(S) ATTACHED

Applicable Manufacturer's Data Reports to be attached

CERTIFICATION OF COMPLIANCE

We certify that the statements made in the report are correct and this REPLACEMENT conforms to the rules of the ASME Code, Section XI.

repair or replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed EBS Owner or Owner's Designee, Title VP-Nuc Operations Date 5/31 , 19 95

CERTIFICATION OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of PENNSYLVANIA and employed by ARKWRIGHT MUTUAL INSURANCE CO. of WALTHAM, MASSACHUSETTS have inspected the components described in this Owner's Report during the period 2/2/95 to 3/20/95, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Inspector's Signature

Commissions NB7866 PA WC 24619 ANII

National Board, State, Province, and Endorsements

Date June 5 19 95

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner: Pennsylvania Power & Light Co. (Name) — Date: May 4, 1995

Two North Ninth St., Allentown, PA 18101 (Address) — Sheet 1 of 3

2. Plant: Susquehanna Steam Electric Station (Name) — Unit: One

PO Box 467, Berwick, PA 18603 (Address) — DCP 89-9153B, WA's C33301, C33303, C33304 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by: Pennsylvania Power & Light Co. (Name) — Type Code Symbol Stamp: None

Two North Ninth St., Allentown, PA 18101 (Address) — Authorization No.: N/A

Expiration Date: N/A

4. Indentification of System: EMERGENCY SERVICE WATER SYSTEM 154A CLASS III

5. (a) Applicable Construction Code: III 19 71 Edition, thru W'72 Addenda, _____ Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 80 thru W'80 and IWF-7000 W 1982 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
PIPE SUPPORT	BECHTEL	N/A	N/A	SP-HBC-139-H3	1982	REPAIRED	NO
PIPE SUPPORT	BECHTEL	N/A	N/A	SP-HBC-131-H11	1982	REPLACED	NO
PIPE SUPPORT	PP+L	N/A	N/A	SP-HBC-131-H11	1994	REPLACEMENT	NO
PIPE SUPPORT	BECHTEL	N/A	N/A	SP-HBC-139-H2050	1982	REPLACED	NO
PIPE SUPPORT	PP+L	N/A	N/A	SP-HBC-139-H2050	1994	REPLACEMENT	NO
PIPE SUPPORT	BECHTEL	N/A	N/A	SP-HBC-139-H2051	1982	REPLACED	NO

7. Description of Work: Removal, reinstallation and modification of existing pipe supports.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ NONE REQUIRED
Other ☐ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets I recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks This NIS-2 is being submitted to report pipe support work that should have been included in an
Applicable Manufacturer's Data Reports to be attached

NIS-2, for system 154A-III, previously submitted with the Unit 1 Seventh Outage Summary Report.

CERTIFICATION OF COMPLIANCE

We certify that the statements made in the report are correct and this REPLACEMENT conforms to the rules of the ASME Code, Section XI.
repair or replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed [signature] Date May 5 , 19 95
5/5/95 Owner or Owner's Designee, Title VP-Nuc Operations

CERTIFICATION OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of PENNSYLVANIA and employed by ARKWRIGHT MUTUAL INSURANCE CO. of WALTHAM, MASSACHUSETTS have inspected the components described in this Owner's Report during the period 3-23-94 to 1-31-9495, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI. 5-31-95

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[signature] Commissions NB7866 PA WC 24619 ANII
Inspector's Signature National Board, State, Province, and Endorsements

Date May 5 19 95

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner: Pennsylvania Power & Light Co. (Name)
Two North Ninth St., Allentown, PA 18101 (Address)

Date: May 4, 1995
Sheet: 2 of 3

2. Plant: Susquehanna Steam Electric Station (Name)
PO Box 467, Berwick, PA 18603 (Address)

Unit: One
DCP 89-9153B, WA's C33301, C33303, C33304 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by: Pennsylvania Power & Light Co. (Name)
Two North Ninth St., Allentown, PA 18101 (Address)

Type Code Symbol Stamp: None
Authorization No.: N/A
Expiration Date: N/A

4. Indentification of System: EMERGENCY SERVICE WATER SYSTEM 154A CLASS III

5. (a) Applicable Construction Code: III 19 71 Edition, thru W'72 Addenda, _____ Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 80 thru W'80 and IWF-7000 W 1982 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
PIPE SUPPORT	PP+L	N/A	N/A	SP-HBC-139-H2051	1994	REPLACEMENT	NO
PIPE SUPPORT	BECHTEL	N/A	N/A	SP-HBC-139-H2001	1982	REPLACED	NO
PIPE SUPPORT	PP+L	N/A	N/A	SP-HBC-139-H2001	1994	REPLACEMENT	NO
PIPE SUPPORT	BECHTEL	N/A	N/A	SP-HBC-140-H1	1982	REPLACED	NO
PIPE SUPPORT	PP+L	N/A	N/A	SP-HBC-140-H1	1994	REPLACEMENT	NO
PIPE SUPPORT	BECHTEL	N/A	N/A	SP-HBC-140-H2017	1982	REPLACED	NO
PIPE SUPPORT	PP+L	N/A	N/A	SP-HBC-140-H2017	1994	REPLACEMENT	NO
PIPE SUPPORT	BECHTEL	N/A	N/A	SP-HBC-140-H2021	1982	REPLACED	NO
PIPE SUPPORT	PP+L	N/A	N/A	SP-HBC-140-H2021	1994	REPLACEMENT	NO
PIPE SUPPORT	BECHTEL	N/A	N/A	SP-HRC-126-H2005	1982	REPLACED	NO
PIPE SUPPORT	PP+L	N/A	N/A	SP-HRC-126-H2005	1994	REPLACEMENT	NO

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Pennsylvania Power & Light Co. (Name) — Date May 4, 1995

Two North Ninth St., Allentown, PA 18101 (Address) — Sheet 3 of 3

2. Plant Susquehanna Steam Electric Station (Name) — Unit One

PO Box 467, Berwick, PA 18603 (Address) — DCP 89-9153B, WA's C33301, C33303, C33304 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by Pennsylvania Power & Light Co. (Name) — Type Code Symbol Stamp None

Two North Ninth St., Allentown, PA 18101 (Address) — Authorization No. N/A

Expiration Date N/A

4. Indentification of System EMERGENCY SERVICE WATER SYSTEM 154A CLASS III

5. (a) Applicable Construction Code III 19 71 Edition, thru W'72 Addenda, _____ Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 80 thru W'80 and IWF-7000 W 1982 Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
PIPE SUPPORT	BECHTEL	N/A	N/A	SP-HRC-127-H5	1982	REPLACED	NO
PIPE SUPPORT	PP+L	N/A	N/A	SP-HRC-127-H5	1994	REPLACEMENT	NO
PIPE SUPPORT	BECHTEL	N/A	N/A	SP-HRC-130-H5	1982	REPLACED	NO
PIPE SUPPORT	PP+L	N/A	N/A	SP-HRC-130-H5	1994	REPLACEMENT	NO

FORM N-2 NPT CERTIFICATE HOLDERS' DATA REPORT FOR NUCLEAR PART AND APPURTENANCES*

As required by the Provision of the ASME Code Rules, Section III, Div. 1

1. (a) Manufactured by Anchor/Darling Valve Co., 701 First St., Williamsport, PA 17701
(Name and address of NPT Certificate Holder)

(b) Manufactured for Pennsylvania Power & Light Co., Two North Ninth St., Allentown, PA 18101
(Name and address of N Certificate Holder for completed nuclear component)

2. Identification-Certificate Holder's Serial No. of Part S/N - U6849 ✓ Nat'l Bd. No. N/A

(a) Constructed According to Drawing No. D13570 Drawing Prepared by Anchor/Darling Valve Company

(b) Description of Part Inspected DISC HEAT #S6141 ✓ SA216-WCB ✓

(c) Applicable ASME Code: Section III, Edition 1971 ✓, Addenda date W72 ✓, Case No. -- Class 2 ✓

3. Remarks: 10"-900# F.W. GATE
(Brief description of service for which component was designed)

A/DV SHOP ORDER ET751-1

NOTE: NO DISC HYDRO PERFORMED

We certify that the statements made in this report are correct and this vessel part or appurtenance as defined in the Code conforms to the rules of construction of the ASME Code Section III.
(The applicable Design Specification and Stress Report are not the responsibility of the NPT Certificate Holder for parts. An NPT Certificate Holder for appurtenances is responsible for furnishing a separate Design Specification and Stress Report if the appurtenance is not included in the component Design Specification and Stress Report.)

Date 3/3 19 94 Signed Anchor/Darling Valve Co. By R.S. Stannett
(NPT Certificate Holder)

Certificate of Authorization Expires 4/15/95 Certificate of Authorization No. N1713

CERTIFICATION OF DESIGN FOR APPURTENANCE (when applicable)

Design information on file at _____

Stress analysis report on file at _____

Design specifications certified by _____ Prof. Eng. State _____ Reg. No. _____

Stress analysis report certified by _____ Prof. Eng. State _____ Reg. No. _____

CERTIFICATE OF SHOP INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State ~~or Province of~~ Pennsylvania and employed by Commercial Union Insurance Company of Boston, Mass. have inspected the part of a pressure vessel described in this Partial Data Report on 2-4-94 to 3-3-94 19__, and state that to the best of my knowledge and belief, the NPT Certificate Holder has constructed this part in accordance with the ASME Code Section III.

By signing this certificate, neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the part described in this Partial Data Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date 3-3 19 94

Charles Young
Inspector's Signature

Commissions Pennsylvania 2392
National Board, State, Province and No.

*Supplemental sheets in form of lists, sketches or drawings may be used provided (1) size is 8½" x 11", (2) information in items 1-3 on this Data Report is included on each sheet and (3) each sheet is numbered and number of sheets is recorded in item 3, "Remarks".

(10/77) This form (E00040) may be obtained from the Order Dept., ASME, 345 E. 47th St., New York, N.Y. 10017

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Pennsylvania Power & Light Co. (Name) — Date May 12, 1995

Two North Ninth St., Allentown, PA 18101 (Address) — Sheet 1 of 2

2. Plant Susquehanna Steam Electric Station (Name) — Unit One

PO Box 467, Berwick, PA 18603 (Address) — DCP's 94-3023A & D; WA's C43582 & C43583 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by Pennsylvania Power & Light Co. (Name) — Type Code Symbol Stamp None

Two North Ninth St., Allentown, PA 18101 (Address) — Authorization No. N/A

Expiration Date N/A

4. Identification of System Emergency Service Water System, 154A, Class III

5. (a) Applicable Construction Code ASME III 19 71 Edition, thru W72 Addenda, N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
ESW SUPPLY TO THE "A" RHR PUMP MOTOR OIL COOLING COIL	BECHTEL	N/A	N/A	SPHBC139-3	1982	REPLACED	YES
ESW SUPPLY TO THE "A" RHR PUMP MOTOR OIL COOLING COIL	PP&L	N/A	N/A	SPHBC139-3	1995	REPLACEMENT	NO
ESW RETURN TO THE "A" RHR PUMP MOTOR OIL COOLING COIL	BECHTEL	N/A	N/A	SPHBC140-3	1982	REPLACED	YES
ESW RETURN TO THE "A" RHR PUMP MOTOR OIL COOLING COIL	PP&L	N/A	N/A	SPHBC140-3	1995	REPLACEMENT	NO
ESW SUPPLY TO THE "D" RHR PUMP MOTOR OIL COOLING COIL	BECHTEL	N/A	N/A	SPHBC139-1	1982	REPLACED	YES
ESW SUPPLY TO THE "D" RHR PUMP MOTOR OIL COOLING COIL	PP&L	N/A	N/A	SPHBC139-1	1995	REPLACEMENT	NO

7. Description of Work Installed new ESW Inlet and Outlet Piping to "A" & "D" RHR Pump Motor Oil Coolers

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☑
Other ☐ Pressure 100 nom. psi Test Temp. ambient °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks _____

Applicable Manufacturer's Data Reports to be attached

CERTIFICATION OF COMPLIANCE

We certify that the statements made in the report are correct and this REPLACEMENT (repair or replacement) conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed _____ Date 5/31 , 19 95

Owner or Owner's Designee, Title VP-Nuc Operations

CERTIFICATION OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of PENNSYLVANIA and employed by ARKWRIGHT MUTUAL INSURANCE CO. of WALTHAM, MASSACHUSETTS have inspected the components described in this Owner's Report during the period 2/2/95 to 4/1/95, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Factory Mutual Engineering Assoc.

_____ Commissions NB 7866 PA WC 24619 ANII

Inspector's Signature National Board, State, Province, and Endorsements

Date June 5 19 95

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner: Pennsylvania Power & Light Co. (Name) — Date: May 12, 1995

Two North Ninth St., Allentown, PA 18101 (Address) — Sheet 2 of 2

2. Plant: Susquehanna Steam Electric Station (Name) — Unit: One

PO Box 467, Berwick, PA 18603 (Address) — DCP's 94-3023A & B; WA's C43582 & C43583 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by: Pennsylvania Power & Light Co. (Name) — Type Code Symbol Stamp: None

Two North Ninth St., Allentown, PA 18101 (Address) — Authorization No.: N/A

Expiration Date: N/A

4. Indentification of System: Emergency Service Water System, 154A, Class III

5. (a) Applicable Construction Code: ASME III 19 71 Edition, thru W'72 Addenda, N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
ESW RETURN TO THE "D" RHR PUMP MOTOR OIL COOLING COIL	BECHTEL	N/A	N/A	SPHBC140-2	1982	REPLACED	YES
ESW RETURN TO THE "D" RHR PUMP MOTOR OIL COOLING COIL	PP&L	N/A	N/A	SPHBC140-2	1995	REPLACEMENT	NO

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner: Pennsylvania Power & Light Co. (Name) — Date: 9 May, 1995

Two North Ninth St., Allentown, PA 18101 (Address) — Sheet 1 of 2

2. Plant: Susquehanna Steam Electric Station (Name) — Unit: One

PO Box 467, Berwick, PA 18603 (Address) — DCP 93-3069 WA# C43389 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by: Pennsylvania Power & Light Co. (Name) — Type Code Symbol Stamp: None

Two North Ninth St., Allentown, PA 18101 (Address) — Authorization No.: N/A

Expiration Date: N/A

4. Identification of System: CONTROL ROD HYDRAULICS SYSTEM 155B CLASS II

5. (a) Applicable Construction Code: ASME SECTION III 19 74 Edition, thru W75 Addenda, 1644-8 & N-71-15 Code Case

Material: NF-2610 ASME Section III, 1977 Edition, thru Winter 1977 Addenda

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989 No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
CRD SDV VENT LINE SUPPORT	BECHTEL	NONE	N/A	1N50	1982	REPLACED	YES
CRD SDV VENT LINE SUPPORT	PP&L	NONE	N/A	1N50	1995	REPLACEMENT	NO
CRD SDV VENT LINE SUPPORT	BECHTEL	NONE	N/A	1N61	1982	REPLACED	YES
CRD SDV VENT LINE SUPPORT	PP&L	NONE	N/A	IN61	1995	REPLACEMENT	NO
CRD SDV VENT LINE SUPPORT	NISCO	NONE	N/A	1S46	1981	REPLACED	YES
CRD SDV VENT LINE SUPPORT	PP&L	NONE	N/A	1S46	1995	REPLACEMENT	NO

7. Description of Work: THE ADDITION AND/OR CHANGE OF STRUCTURAL MEMBERS & CLAMPS

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐
Other ☐ Pressure N/A psi Test Temp. N/A °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks NONE

Applicable Manufacturer's Data Reports to be attached

CERTIFICATION OF COMPLIANCE

We certify that the statements made in the report are correct and this REPLACEMENT conforms to the rules of the ASME Code, Section XI.

repair or replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed [signature] Date 5/31 , 19 95

Owner or Owner's Designee, Title VP-Nuc Operations

CERTIFICATION OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of PENNSYLVANIA and employed by ARKWRIGHT MUTUAL INSURANCE CO. of WALTHAM, MASSACHUSETTS have inspected the components described in this Owner's Report during the period 3/20/95 to 5/16/95, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Factory Mutual Engineering Assoc.

[signature] Commissions NB7866 PA WC 24619 ANII

Inspector's Signature National Board, State, Province, and Endorsements

Date June 5 19 95

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Pennsylvania Power & Light Co. (Name) Date 9 May, 1995

Two North Ninth St., Allentown, PA 18101 (Address) Sheet 2 of 2

2. Plant Susquehanna Steam Electric Station (Name) Unit Two

PO Box 467, Berwick, PA 18603 (Address) DCP 93-3069 WA# C43389 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by Pennsylvania Power & Light Co. (Name) Type Code Symbol Stamp None

Two North Ninth St., Allentown, PA 18101 (Address) Authorization No. N/A

Expiration Date N/A

4. Indentification of System CONTROL ROD HYDRAULICS SYSTEM 155B CLASS II

5. (a) Applicable Construction Code ASME SECTION III 19 74 Edition, thru W75 Addenda, 1644-8 & N-71-15 Code Case

Material: NF-2610 ASME Section III, 1977 Edition, thru Winter 1977 Addenda

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1989 No Addenda

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
CRD SDV VENT LINE SUPPORT	NISCO	NONE	N/A	1S53	1981	REPLACED	YES
CRD SDV VENT LINE SUPPORT	PP&L	NONE	N/A	1S53	1995	REPLACEMENT	NO
CRD SDV VENT LINE SUPPORT	NISCO	NONE	N/A	1S58	1981	REPLACED	YES
CRD SDV VENT LINE SUPPORT	PP&L	NONE	N/A	1S58	1995	REPLACEMENT	NO
CRD SDV VENT LINE SUPPORT	NISCO	NONE	N/A	1N58	1981	REPLACED	YES
CRD SDV VENT LINE SUPPORT	PP&L	NONE	N/A	1N58	1995	REPLACEMENT	NO
CRD SDV VENT LINE SUPPORT	NISCO	NONE	N/A	1N57	1981	REPLACED	YES
CRD SDV VENT LINE SUPPORT	PP&L	NONE	N/A	1N57	1995	REPLACEMENT	NO
CRD SDV VENT LINE SUPPORT	NISCO	NONE	N/A	1S54A	1981	REPLACED	YES
CRD SDV VENT LINE SUPPORT	PP&L	NONE	N/A	1S54A	1995	REPLACEMENT	NO

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner: Pennsylvania Power & Light Co. (Name) — Date: May 12, 1995

Two North Ninth St., Allentown, PA 18101 (Address) — Sheet 1 of 5

2. Plant: Susquehanna Steam Electric Station (Name) — Unit: One

PO Box 467, Berwick, PA 18603 (Address) — DCP's 93-3059A, B & C; WA's C43245, C43246, C43250, C43251, C43255 through C43258 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by: Pennsylvania Power & Light Co. (Name) — Type Code Symbol Stamp: None

Two North Ninth St., Allentown, PA 18101 (Address) — Authorization No.: N/A

Expiration Date: N/A

4. Indentification of System: Reactor Vessel and Aux. System, 162A, Class I

5. (a) Applicable Construction Code: ASME III 19 71 Edition, thru W'72 Addenda, N-411 Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
PIPING FROM NOZZLE N-12A TO PENETRATION X-59A	BECHTEL	N/A	N/A	SPDCA137-4	1982	REPLACED	YES
PIPING FROM NOZZLE N-12A TO PENETRATION X-59A	PP&L	N/A	N/A	SPDCA137-4	1995	REPLACEMENT	NO
VENT FROM XY-1D004A TO SPDCA138-1	PP&L	N/A	N/A	SPDCA137-5	1995	REPLACEMENT	NO
PIPING FROM NOZZLE N-11A TO PENETRATION X-65A	BECHTEL	N/A	N/A	SPDCA138-1	1982	REPLACED	YES
PIPING FROM NOZZLE N-11A TO PENETRATION X-65A	PP&L	N/A	N/A	SPDCA138-1	1995	REPLACEMENT	NO

7. Description of Work: Installed new Reactor Water Level Condensing Chambers and associated Vent Piping

8. Tests Conducted: Hydrostatic [√] Pneumatic [ ] Nominal Operating Pressure [√]
Other [ ] Pressure 1100 / 1050 psi Test Temp. 80 / 155 °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks ASME Section III, 1977 Edition thru Summer 1979 Addenda (NB-3650) is applicable to Nuclear
Applicable Manufacturer's Data Reports to be attached

Class 1 evaluation only.

CERTIFICATION OF COMPLIANCE

We certify that the statements made in the report are correct and this REPLACEMENT (repair or replacement) conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed [signature] Date 5/31 , 19 95
Owner or Owner's Designee, Title VP-Nuc Operations

CERTIFICATION OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of PENNSYLVANIA and employed by ARKWRIGHT MUTUAL INSURANCE CO. of WALTHAM, MASSACHUSETTS have inspected the components described in this Owner's Report during the period 2/2/95 to 5/15/95, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[signature]
Inspector's Signature

Commissions Factory Mutual Engineering Assoc. NB 7866 PA WC 24619 ANII
National Board, State, Province, and Endorsements

Date June 5 19 95

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Pennsylvania Power & Light Co. (Name) — Date May 12, 1995

Two North Ninth St., Allentown, PA 18101 (Address) — Sheet 2 of 5

2. Plant Susquehanna Steam Electric Station (Name) — Unit One

PO Box 467, Berwick, PA 18603 (Address) — DCP's 93-3059A, B & C; WA's C43245, C43246, C43250, C43251, C43255 through C43258 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by Pennsylvania Power & Light Co. (Name) — Type Code Symbol Stamp None

Two North Ninth St., Allentown, PA 18101 (Address) — Authorization No. N/A

Expiration Date N/A

4. Indentification of System Reactor Vessel and Aux. System, 162A, Class I

5. (a) Applicable Construction Code ASME III 19 71 Edition, thru W'72 Addenda, N-411 Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
PIPING FROM NOZZLE N-12B TO PENETRATION X-59B	BECHTEL	N/A	N/A	SPDCA137-1	1982	REPLACED	YES
PIPING FROM NOZZLE N-12B TO PENETRATION X-59B	PP&L	N/A	N/A	SPDCA137-1	1995	REPLACEMENT	NO
VENT FROM XY-1D004B TO SPDCA138-2	PP&L	N/A	N/A	SPDCA137-6	1995	REPLACEMENT	NO
PIPING FROM NOZZLE N-11B TO PENETRATION X-65B	BECHTEL	N/A	N/A	SPDCA138-2	1982	REPLACED	YES
PIPING FROM NOZZLE N-11B TO PENETRATION X-65B	PP&L	N/A	N/A	SPDCA138-2	1995	REPLACEMENT	NO
REACTOR VESSEL HEAD VENT TO STEAM LINE	BECHTEL	N/A	N/A	SPDBA112-4	1982	REPLACED	YES
REACTOR VESSEL HEAD VENT TO STEAM LINE	PP&L	N/A	N/A	SPDBA112-4	1995	REPLACEMENT	NO
REACTOR VESSEL HEAD VENT TO PENETRATION X-59A	BECHTEL	N/A	N/A	SPDCA145-2	1982	REPLACED	YES
REACTOR VESSEL HEAD VENT TO PENETRATION X-59A	PP&L	N/A	N/A	SPDCA145-2	1995	REPLACEMENT	NO

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner: Pennsylvania Power & Light Co. (Name) — Date: May 12, 1995

Two North Ninth St., Allentown, PA 18101 (Address) — Sheet 3 of 5

2. Plant: Susquehanna Steam Electric Station (Name) — Unit: One

PO Box 467, Berwick, PA 18603 (Address) — DCP's 93-3059A, B & C; WA's C43245, C43246, C43250, C43251, C43255 through C43258 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by: Pennsylvania Power & Light Co. (Name) — Type Code Symbol Stamp: None

Two North Ninth St., Allentown, PA 18101 (Address) — Authorization No.: N/A

Expiration Date: N/A

4. Indentification of System: Reactor Vessel and Aux. System, 162A, Class I

5. (a) Applicable Construction Code: ASME III 19 71 Edition, thru W'72 Addenda, N-411 Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
REACTOR VESSEL HEAD VENT TO PENETRATION X-59B	BECHTEL	N/A	N/A	SPDCA145-5	1982	REPLACED	YES
REACTOR VESSEL HEAD VENT TO PENETRATION X-59B	PP&L	N/A	N/A	SPDCA145-5	1995	REPLACEMENT	NO
VENT FROM XY-14202 TO SPDBA112-4	PP&L	N/A	N/A	SPDCA145-8	1995	REPLACEMENT	NO
VENT FROM XY-B21-1D002 TO SPDBA112-4	PP&L	N/A	N/A	SPDCA145-9	1995	REPLACEMENT	NO
PIPE SUPPORT RX BLDG INSIDE CONTAINMENT	BECHTEL	N/A	N/A	SPDCA137-H7	1982	REPLACED	NO
PIPE SUPPORT RX BLDG INSIDE CONTAINMENT	PP&L	N/A	N/A	SPDCA137-H7	1995	REPLACEMENT	NO
PIPE SUPPORT RX BLDG INSIDE CONTAINMENT	PP&L	N/A	N/A	SPDCA137-H23	1995	REPLACEMENT	NO
PIPE SUPPORT RX BLDG INSIDE CONTAINMENT	PP&L	N/A	N/A	SPDCA137-H24	1995	REPLACEMENT	NO
PIPE SUPPORT RX BLDG INSIDE CONTAINMENT	PP&L	N/A	N/A	SPDCA138-H26	1995	REPLACEMENT	NO

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner: Pennsylvania Power & Light Co. (Name) — Date: May 12, 1995

Two North Ninth St., Allentown, PA 18101 (Address) — Sheet 4 of 5

2. Plant: Susquehanna Steam Electric Station (Name) — Unit: One

PO Box 467, Berwick, PA 18603 (Address) — DCP's 93-3059A, B & C; WA's C43245, C43246, C43250, C43251, C43255 through C43258 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by: Pennsylvania Power & Light Co. (Name) — Type Code Symbol Stamp: None.

Two North Ninth St., Allentown, PA 18101 (Address) — Authorization No.: N/A

Expiration Date: N/A

4. Indentification of System: Reactor Vessel and Aux. System, 162A, Class I

5. (a) Applicable Construction Code: ASME III 19 71 Edition, thru W'72 Addenda, N-411 Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
PIPE SUPPORT RX BLDG INSIDE CONTAINMENT	PP&L	N/A	N/A	SPDCA138-H27	1995	REPLACEMENT	NO
PIPE SUPPORT RX BLDG INSIDE CONTAINMENT	PP&L	N/A	N/A	SPDCA138-H28	1995	REPLACEMENT	NO
PIPE SUPPORT RX BLDG DRYWELL	BECHTEL	N/A	N/A	SPDBA112-H28	1982	REPLACED	NO
PIPE SUPPORT RX BLDG DRYWELL	PP&L	N/A	N/A	SPDBA112-H28	1995	REPLACEMENT	NO
PIPE SUPPORT RX BLDG DRYWELL	PP&L	N/A	N/A	SPDBA112-H51	1995	REPLACEMENT	NO
PIPE SUPPORT RX BLDG DRYWELL	BECHTEL	N/A	N/A	SPDCA145-H50	1982	REPLACED	NO
PIPE SUPPORT RX BLDG DRYWELL	PP&L	N/A	N/A	SPDCA145-H50	1995	REPLACEMENT	NO
PIPE SUPPORT RX BLDG DRYWELL	BECHTEL	N/A	N/A	SPDCA145-H52	1982	REPLACED	NO
PIPE SUPPORT RX BLDG DRYWELL	PP&L	N/A	N/A	SPDCA145-H52	1995	REPLACEMENT	NO
PIPE SUPPORT RX BLDG DRYWELL	BECHTEL	N/A	N/A	SPDCA145-H53	1982	REPLACED	NO
PIPE SUPPORT RX BLDG DRYWELL	PP&L	N/A	N/A	SPDCA145-H53	1995	REPLACEMENT	NO

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Pennsylvania Power & Light Co. (Name)
Two North Ninth St., Allentown, PA 18101 (Address)

Date May 12, 1995

Sheet 5 of 5

2. Plant Susquehanna Steam Electric Station (Name)
PO Box 467, Berwick, PA 18603 (Address)

Unit One

DCP's 93-3059A, B & C; WA's C43245, C43246, C43250, C43251, C43255 through C43258 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by Pennsylvania Power & Light Co. (Name)
Two North Ninth St., Allentown, PA 18101 (Address)

Type Code Symbol Stamp None

Authorization No. N/A

Expiration Date N/A

4. Identification of System Reactor Vessel and Aux. System, 162A, Class I

5. (a) Applicable Construction Code ASME III 19 71 Edition, thru W72 Addenda, N-411 Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
PIPE SUPPORT RX BLDG DRYWELL	PP&L	N/A	N/A	SPDCA145-H70	1995	REPLACEMENT	NO
PIPE SUPPORT RX BLDG DRYWELL	PP&L	N/A	N/A	SPDCA145-H71	1995	REPLACEMENT	NO

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Pennsylvania Power & Light Co. (Name) — Date May 12, 1995

Two North Ninth St., Allentown, PA 18101 (Address) — Sheet 1 of 1

2. Plant Susquehanna Steam Electric Station (Name) — Unit One

PO Box 467, Berwick, PA 18603 (Address) — DCP's 94-9088; WA C53150 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by Pennsylvania Power & Light Co. (Name) — Type Code Symbol Stamp None

Two North Ninth St., Allentown, PA 18101 (Address) — Authorization No. N/A

Expiration Date N/A

4. Indentification of System Recirc-Flow Control and Jet Pump Instrumentation, 164A, Class I

5. (a) Applicable Construction Code ASME III 19 71 Edition, thru W72 Addenda, N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
PIPE SUPPORT RX BLDG INSIDE CONTAINMENT	BECHTEL	N/A	N/A	SPDCA151-H2008	1982	REPLACED	NO
PIPE SUPPORT RX BLDG INSIDE CONTAINMENT	PP&L	N/A	N/A	SPDCA151-H2008	1995	REPLACEMENT	NO

7. Description of Work Modified support to change natural frequency of drain line to valve HV-143F031B

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ None Required
Other ☐ Pressure N/A psi Test Temp. N/A °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks

Applicable Manufacturer's Data Reports to be attached

CERTIFICATION OF COMPLIANCE

We certify that the statements made in the report are correct and this REPLACEMENT (repair or replacement) conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed [signature] Owner or Owner's Designee, Title VP-Nuc Operations Date 5/31, 19 95

CERTIFICATION OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of PENNSYLVANIA and employed by ARKWRIGHT MUTUAL INSURANCE CO. of WALTHAM, MASSACHUSETTS have inspected the components described in this Owner's Report during the period 3/20/95 to 5/1/95, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[signature] Inspector's Signature

Factory Mutual Engineering Assoc.

Commissions NB 7866 PA WC 24619 ANII

National Board, State, Province, and Endorsements

Date June 5 19 95

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Pennsylvania Power & Light Co. (Name) — Date MAY 4, 1995

Two North Ninth St., Allentown, PA 18101 (Address) — Sheet 1 of 1

2. Plant Susquehanna Steam Electric Station (Name) — Unit ONE

PO Box 467, Berwick, PA 18603 (Address) — DCP 95-9025, WA C53262 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by Pennsylvania Power & Light Co. (Name) — Type Code Symbol Stamp None

Two North Ninth St., Allentown, PA 18101 (Address) — Authorization No. N/A

Expiration Date N/A

4. Indentification of System PRIMARY CONTAINMENT ATMOSPHERE CONTROL SYSTEM 173A CLASS II

5. (a) Applicable Construction Code ASME III 19 71 Edition, W '72 Addenda, N-411 Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89 EDITION

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
PIPE SUPPORT	BECHTEL	N/A	N/A	HBB-116-H1	1982	REPLACED	NO
MECHANICAL SNUBBER	PACIFIC SCIENTIFIC	13424-81	N/A	HBB-116-H1	1981	REPLACED	N/A
PIPE SUPPORT	BECHTEL	N/A	N/A	HBB-116-H2	1982	REPLACED	NO
PIPE SUPPORT	BECHTEL	N/A	N/A	HBB-116-H4	1982	REPLACED	NO
PIPE SUPPORT	BECHTEL	N/A	N/A	SP-HBB-116-H2004	1982	REPLACED	NO

7. Description of Work REMOVAL OF SUPPORTS FROM HV-15703, HV-15704 & HV-15705

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ NO TESTING REQUIRED
Other ☐ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks IN RESPONSE TO EDR 94-002.

Applicable Manufacturer's Data Reports to be attached

CERTIFICATION OF COMPLIANCE

We certify that the statements made in the report are correct and this REPLACEMENT (repair or replacement) conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed [signature] Date 5/31 , 19 95

Owner or Owner's Designee, Title VP-Nuc Operations

CERTIFICATION OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of PENNSYLVANIA and employed by ARKWRIGHT MUTUAL INSURANCE CO. of WALTHAM, MASSACHUSETTS have inspected the components described in this Owner's Report during the period 3/26/95 to 5/5/95, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[signature]
Inspector's Signature

Factory Mutual Engineering Assoc.

Commissions NB 7866 PA NC 24619 ANII
National Board, State, Province, and Endorsements

Date June 5 19 95

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Pennsylvania Power & Light Co. (Name) Date May 30, 1995

Two North Ninth St., Allentown, PA 18101 (Address) Sheet 1 of 2

2. Plant Susquehanna Steam Electric Station (Name) Unit One

PO Box 467, Berwick, PA 18603 (Address) PMR 89-3018D WA's C04388, C04389, C04390 C04391 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by Pennsylvania Power & Light Co. (Name) Type Code Symbol Stamp None

Two North Ninth St., Allentown, PA 18101 (Address) Authorization No. N/A

Expiration Date N/A

4. Indentification of System CONTAINMENT RADIATION MONITORING SYSTEM 173A CLASS II

5. (a) Applicable Construction Code III 19 71 Edition, thru W72 Addenda, _____ Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
SMALL PIPE ASSEMBLY	PPL	NA	NA	SPHCB158-1	1992	REPLACED	NO
SMALL PIPE ASSEMBLY	PPL	NA	NA	SPHCB158-1	1994	REPLACEMENT	NO
SMALL PIPE SUPPORT	BECHTEL	NA	NA	SPHCB125-H7	1982	REPLACED	NO
SMALL PIPE SUPPORT	PPL	NA	NA	SPHCB125-H7	1994	REPLACEMENT	NO
SMALL PIPE SUPPORT	PPL	NA	NA	SPHCB158-H5	1994	REPLACEMENT	NO
SMALL PIPE SUPPORT	PPL	NA	NA	SPHCB159-H5	1994	REPLACEMENT	NO

7. Description of Work INSTALLATION AND TESTING OF 1" CRM PIPING

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☑ Nominal Operating Pressure ☐
Other ☐ Pressure 67 psi Test Temp. 88 / 90 °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks _____

Applicable Manufacturer's Data Reports to be attached

CERTIFICATION OF COMPLIANCE

We certify that the statements made in the report are correct and this REPLACEMENT (repair or replacement) conforms to the rules of the ASME Code, Section XI.

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed _____ Date 5/31 , 19 95

Owner or Owner's Designee, Title VP-Nuc Operations

CERTIFICATION OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of PENNSYLVANIA and employed by ARKWRIGHT MUTUAL INSURANCE CO. of WALTHAM, MASSACHUSETTS have inspected the components described in this Owner's Report during the period 2/10/95 to 3/20/95, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

_____ Commissions NB7866 PA WC24619 AN11

Inspector's Signature National Board, State, Province, and Endorsements

Date June 5 19 95

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner: Pennsylvania Power & Light Co. (Name) — Date: May 30, 1995

Two North Ninth St., Allentown, PA 18101 (Address) — Sheet 2 of 2

2. Plant: Susquehanna Steam Electric Station (Name) — Unit: 0NE

PO Box 467, Berwick, PA 18603 (Address) — PMR 89-3018D WA's C04388, C04389, C04390 C04391 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by: Pennsylvania Power & Light Co. (Name) — Type Code Symbol Stamp: None

Two North Ninth St., Allentown, PA 18101 (Address) — Authorization No.: N/A

Expiration Date: N/A

4. Identification of System: CONTAINMENT RADIATION MONITORING SYSTEM 173A CLASS II

5. (a) Applicable Construction Code: III 19 71 Edition, thru W72 Addenda, _____ Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 89

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
SMALL PIPE ASSEMBLY	PPL	NA	NA	SPHCB159-1	1992	REPLACED	NO
SMALL PIPE ASSEMBLY	PPL	NA	NA	SPHCB159-1	1994	REPLACEMENT	NO
SMALL PIPE ASSEMBLY	PPL	NA	NA	SPHCB160-1	1992	REPLACED	NO
SMALL PIPE ASSEMBLY	PPL	NA	NA	SPHCB160-1	1994	REPLACEMENT	NO
SMALL PIPE ASSEMBLY	PPL	NA	NA	SPHCB161-1	1992	REPLACED	NO
SMALL PIPE ASSEMBLY	PPL	NA	NA	SPHCB161-1	1994	REPLACEMENT	NO
SMALL PIPE ASSEMBLY	PPL	NA	NA	SPHCB162-1	1992	REPLACED	NO
SMALL PIPE ASSEMBLY	PPL	NA	NA	SPHCB162-1	1994	REPLACEMENT	NO
SMALL PIPE SUPPORT	PPL	NA	NA	SPHCB162-H4 /	1994	REPLACEMENT	NO
SMALL PIPE ASSEMBLY	PPL	NA	NA	SPHCB163-1	1992	REPLACED	NO
SMALL PIPE ASSEMBLY	PPL	NA	NA	SPHCB163-1 /	1994	REPLACEMENT	NO

FORM R-1, REPORT OF WELDED [X] REPAIR OR. [ ] ALTERATION
as required by the provisions of the National Board Inspection Code

1. Work performed by Pennsyivania Power and Light (name of repair or alteration organization) DCP93-3086 WA# C43383 (P.O. no., job no., etc.)
Two North Ninth Street, Allentown, Pa. 18101 (address)

2. Owner Pennsylvania Power and Light (name)
Two North Ninth Street, Allentown, Pa. 18101 (address)

3. Location of installation Susquehanna Steam Electric Station (name)
P.O. Box 467, Berwick, Pa. 18603 (address)

4. Unit identification: 1T-105A (boiler, pressure vessel) Name of original manufacturer GE / HEAT TRANSFER PRODUCTS

5. Identifying nos: 264586 (mfr's serial no.) 60425 (original National Board no.) N/A (jurisdiction no.) N/A (other) 1976 (year built)

6. Description of work: Capped 4 existing 2" schedule 80 pipe nozzles and installed 4 new 2" schedule 80 pipe nozzles. Also capped 1 existing 1" schedule 80 pipe nozzle. (use back, seperate sheet, or sketch if necessary)

Pressure test, if applied N/A psi

7. Replacement Parts. Attached are Manufacturers' Partial Data Reports properly indentified and signed by Authorized Inspectors for the following items of this report
N/A
(name of part, item number, mfr's. name and identifying stamp)

8. Remarks: NONE

This form may be obtained from the National Board of Boiler and Pressure Vessel Inspectors, 1055 Crupper Ave., Columbus, OH 43229 NB-66 Rev.5

DESIGN CERTIFICATION

The undersigned certifies that the statements made in this report are correct and that the design changes described in this report conform to the requirements of the National Board Inspection Code.

ASME Certificate of Authorization no. _____ to use the _____ symbol expires _____, 19____.

Date _____, 19____ _____ Signed _____
(name of organization) (authorized representative)

CERTIFICATE OF REVIEW OF DESIGN CHANGE

The undersigned, holding a valid Commision issued by the National Board of Boiler and Pressure Vessel Inspectors and certificate of competency issued by the state or province of _____ and employed by _____ of _____ has examined the design change as described in this report and verifies that to the best of his knowledge and belief such change complies with the applicable requirements of the National Board Inspection Code. By signing this certificate, neither the undersigned nor his employer makes any warrenty, expressed or implied, concerning the work described in this report. Furthermore, neither the undersigned nor my employer shall be liable in any manner for any personal injury, property damage or loss of any kind arising from or connected with this inspection, except such liability as may be provided in a policy of in surance which the undersigned's insurance company may issue upon said object and then only in accordance with the terms of said policy.

Date _____, 19____ Signed _____ Commissions _____
(Authorized Inspector) (National Board (incl. endorsements), state, prov., and no.)

CONSTRUCTION CERTIFICATION

The undersigned certifies that the statements made in this report are correct and that all construction and workmanship on this REPAIR conform to the National Board Inspection Code.
(repair or alteration)

Certificate of Authorization no. N/A to use the N/A symbol expires N/A, 19____

Date 5/31, 1995 PENNSYLVANIA POWER + LIGHT CO. Signed _____
(name of alteration organization) (authorized representative)

CERTIFICATE OF INSPECTION

The undersigned, holding a valid Commision issued by The National Board of Boiler and Pressure Vessel Inspectors and certificate of competency issued by the state or province of PENNSYLVANIA and employed by ARKWRIGHT MUTUAL INSURANCE CO. of WALTHAM, MASS. has inspected the work described in this report on 5/10, 1995 and state that to the best of my knowledge and belief this work has been done in accordance with the National Board Inspection Code. By signing this certificate, neither the undersigned nor my employer makes any warrenty, expressed or implied, concerning the work described in this report. Furthermore, neither the undersigned nor my employer shall be liable in any manner for any personal injury, property damage or loss of any kind arising from or connected with this inspection, except such liability as may be provided in a policy of in surance which the undersigned's insurance company may issue upon said object and then only in accordance with the terms of said policy.

Date June 5, 1995 Signed _____ Commissions NB7866
(Authorized Inspector) (National Board (incl. endorsements), state, prov., and no.)

FORM R-1, REPORT OF WELDED [X] REPAIR OR [ ] ALTERATION
as required by the provisions of the National Board Inspection Code

1. Work performed by Pennsylvania Power and Light (name of repair or alteration organization) DCP93-3086 / WA# C43384 (P.O. no., job no., etc.)
Two North Ninth Street, Allentown, Pa. 18101 (address)

2. Owner Pennsylvania Power and Light (name)
Two North Ninth Street, Allentown, Pa. 18101 (address)

3. Location of installation Susquehanna Steam Electric Station (name)
P.O. Box 467, Berwick, Pa. 18603 (address)

4. Unit identification: 1T-105B (boiler, pressure vessel) Name of original manufacturer GE / HEAT TRANSFER PRODUCTS

5. Identifying nos: 264587 (mfr's serial no.) 60426 (original National Board no.) N/A (jurisdiction no.) N/A (other) 1976 (year built)

6. Description of work: Capped 4 existing 2" schedule 80 pipe nozzles and installed 4 new 2" schedule 80 (use back, seperate sheet, or sketch if necessary)
pipe nozzles. Also capped 1 existing 1", sch-80 Pipe nozzle.

Pressure test, if applied N/A psi

7. Replacement Parts. Attached are Manufacturers' Partial Data Reports properly indentified and signed by Authorized Inspectors for the following items of this report
N/A
(name of part, item number, mfr's. name and identifying stamp)

8. Remarks: NONE

This form may be obtained from the National Board of Boiler and Pressure Vessel Inspectors, 1055 Crupper Ave., Columbus, OH 43229

NB-66
Rev.5

DESIGN CERTIFICATION

The undersigned certifies that the statements made in this report are correct and that the design changes described in this report conform to the requirements of the National Board Inspection Code.

ASME Certificate of Authorization no. _____ to use the _____ symbol expires _____, 19____.

Date _____, 19____ _____ Signed _____
(name of organization) (authorized representative)

CERTIFICATE OF REVIEW OF DESIGN CHANGE

The undersigned, holding a valid Commision issued by the National Board of Boiler and Pressure Vessel Inspectors and certificate of competency issued by the state or province of _____ and employed by _____ of _____ has examined the design change as described in this report and verifies that to the best of his knowledge and belief such change complies with the applicable requirements of the National Board Inspection Code. By signing this certificate, neither the undersigned nor his employer makes any warrenty, expressed or implied, concerning the work described in this report. Furthermore, neither the undersigned nor my employer shall be liable in any manner for any personal injury, property damage or loss of any kind arising from or connected with this inspection, except such liability as may be provided in a policy of in surance which the undersigned's insurance company may issue upon said object and then only in accordance with the terms of said policy.

Date _____, 19____ Signed _____ Commissions _____
(Authorized Inspector) (National Board (incl. endorsements), state, prov., and no

CONSTRUCTION CERTIFICATION

The undersigned certifies that the statements made in this report are correct and that all construction and workmanship on this REPAIR conform to the National Board Inspection Code.
(repair or alteration)

Certificate of Authorization no. N/A to use the N/A symbol expires N/A, 19____

Date 5/31, 1995 PENNSYLVANIA POWER + LIGHT CO. Signed _____
(name of alteration organization) (authorized representative)

CERTIFICATE OF INSPECTION

The undersigned, holding a valid Commision issued by The National Board of Boiler and Pressure Vessel Inspectors and certificate of competency issued by the state or province of PENNSYLVANIA and employed by ARKWRIGHT MUTUAL INSURANCE CO. of WALTHAM, MASS. has inspected the work described in this report on 5/10, 1995 and state that to the best of my knowledge and belief this work has been done in accordance with the National Board Inspection Code. By signing this certificate, neither the undersigned nor my employer makes any warrenty, expressed or implied, concerning the work described in this report. Furthermore, neither the undersigned nor my employer shall be liable in any manner for any personal injury, property damage or loss of any kind arising from or connected with this inspection, except such liability as may be provided in a policy of in surance which the undersigned's insurance company may issue upon said object and then only in accordance with the terms of said policy.

Date June 5, 1995 Signed _____ Commissions NB 7866
(Authorized Inspector) (National Board (incl. endorsements), state, prov., and no.)

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(Former E&S Construction NIS-2 Forms included in D.1)

SNUBBER REPLACEMENT

NIS-2 FORMS

SNUBBER REPLACEMENT

NIS-2 FORMS

ISI SNUBBER REPAIR AND REPLACEMENT SUMMARY

1.0 INTRODUCTION

This summary identifies the work performed on ASME Section XI Snubbers, (Classes 1,2,3, and Safety Related Snubbers, parts for replacements, and repairs for which ISI has NIS-2 responsibility). This work was performed during the Unit 1 Eighth Refueling and Inspection Outage.

2.0 CODE COMPLIANCE SUMMARY

All work on ASME Section XI items meet the requirements of IWA-4000 and IWA-7000 of ASME Section XI 1989 Edition, no Addenda.

3.0 Work in this area consists of Work Authorizations for Section XI replacements of snubbers and parts.

3.A Summary of replacements for snubbers, by System, Work Authorization Number, and Support Number (see Attachment 3.A).

3.B Summary of replacement or repair of snubber parts by System, Work Authorization Number, Support Number, and Replaced parts (see Attachment 3.B).

ATTACHMENT 3.A

SNUBBERS REPLACED

SYSTEM	WORK AUTHORIZATION	SUPPORT IDENTIFICATION
024A-III	Y40085	HBC8H2
134G-III	Y40258	HRC123H15
145A-I	Y40269	SPDBA103H2000
149A-II	Y40315	SPGBB115H2008
	Y40074	GBB104H8
150A-II	Y40103	SPDBB121H2012
152A-II	Y40166	DBB120H25
162A-II	Y40265	MST22H42B
	Y40093	MST22H47
164B-I	Y40177	DCA102H3
183A-II	Y40156	DBB104H18
	Y40279	SPDBB108H2008
183D-III	Y40227	GBC101H233
183E-III	H40198	SPHCC138H2008
183F-I	Y40114	SPDCA127H156
	Y40114	SPDCA127H161
	Y40117	SPDCA128H138
183H-II	Y40320	SPGBB134H3
	Y40106	SPDBB125H3

ATTACHMENT 3.B

SNUBBER REPLACEMENT PARTS

SYSTEM	WORK AUTHORIZATION	SUPPORT IDENTIFICATION	REPLACED PARTS
149A-II	Y40074	GBB104H8	2 Heavy Hex Nuts, 1 Load Stud
149A-II	Y40076	GBB104H47	1 Heavy Hex Nut
149A-II	Y40079	GBB109H35	Ground Rear Bracket Weld
150B-II	Y40158	DBB109H16	1 Load Stud
152A-II	Y40067	EBB102H15	Grind 1/16" off Clamp
	Y40067	EBB102H15	1 Load Stud, 2 Heavy Hex Nuts
161B-III	Y40170	DBC102H17	1 Pivot Pin
162A-II	Y40265	MST22H48	1 Load Stud, 2 Heavy Hex Nuts
	Y40262	MST22H32	1 Load Stud, 2 Heavy Hex Nuts
	Y40093	MST22H47	2 Heavy Hex Nuts
	Y40145	DBA102H12	1 Pivot Pin
	Y40260	MST22H17	1 Load Stud, 2 Heavy Hex Nuts
	Y40092	MST22H19	1 Load Stud, 1 Heavy Hex Nut
	H40198	MST22H24	1 Pivot Pin
	Y40093	MST22H47	1 Load Stud
164B-I	Y40109	SPDCA102H20	1 Load Stud, 1 Heavy Hex Nut
	Y40097	RWS100H49	1 Pivot Pin
	Y40266	RWS100H12	Grind 1/16" off Clamp
173C-II	Y40333	SPHCB122H2005	1 Load stud, 1 Pivot Pin, 2 Heavy Hex Nuts
183A-I	Y40120	SPDCA149H2003	2 Heavy Hex Nuts
	Y40304	SPDCA149H2006	2 Heavy Hex Nuts
	Y40302	SPDCA148H2010	1 Load Stud, 2 Heavy Hex Nuts
	Y40302	SPDCA148H2009	1 Pivot Pin
183A-II	Y40151	DBB102H12A	1 Pivot Pin
	Y40153	DBB103H7A	1 Pivot Pin
	Y40154	DBB104H13A	1 Pivot Pin
183D-III	Y40081	GBC101H272	2 Heavy Hex Nuts
	Y40081	GBC101H193	1 Pivot Pin, Grind 1/16" Steel From Clamp
	Y40224	GBC101H147	1 Pivot Pin
	Y40081	GBC101H272	1 Load Stud
183H	Y40280	SPDBB124H4	1 Load Stud, 1 Pivot Pin

SNUBBER REPLACEMENT

NIS-2 FORMS

SNUBBER NIS-2 FORMS

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Pennsylvania Power & Light Co. (Name) Date 05/18/95

Two North Ninth St., Allentown, PA 18101 (Address) Sheet 1 of 1

2. Plant Susquehanna Steam Electric Station (Name) Unit 1

PO Box 467, Berwick, PA 18603 (Address) Maintenance/WA # Y40085 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by Owner (Name) Type Code Symbol N/A

(Address) Authorization N/A

Expiration Date N/A

4. Identification of System 024A, Class III, Diesel Generator B Exhaust

5. (a) Applicable Construction Code ASME III 19 71 Edition, W'72 Addenda N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 '89 No Add.

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
Mech Shock	Pacific Scientific	19504	N/A	HBC8H2	1981	REPLACED	YES
Mech Shock Arrestor	Pacific Scientific	19448	N/A	HBC8H2	1981	REPLACEMENT	YES

7. Description of Work Replaced existing snubber with same size, functionally tested replacement snubber.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐
Exempt ☒ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets i recorded at the top of this form.

This form (E00030) may be obtained from the Order Dept., ASME, 345 E. 47th St., New York, N. Y

FORM NIS-2 (Back)

9. Remarks N/A

Applicable Manufacturer's Data Reports to be attached

CERTIFICATION OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Repair or Replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed [signature] Date 6/28/95 , 19 95

Owner or Owner's Designee, Title V.P. - NUCLEAR OPERATIONS

CERTIFICATION OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of PENNSYLVANIA and employed by ARKWRIGHT MUTUAL INSURANCE CO. of WALTHAM, MASSACHUSETTS have inspected the components described in this Owner's Report during the period 03/25/95 to 05/06/95, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

FACTORY MUTUAL ENG ASSOC.

[signature] Commissions NB7866 PA WC 24619 ANII

Inspector's Signature National Board, State, Province, and Endorsements

Date: June 28, 19 95

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Pennsylvania Power & Light Co. (Name) Date 05/18/95

Two North Ninth St., Allentown, PA 18101 (Address) Sheet 1 of 1

2. Plant Susquehanna Steam Electric Station (Name) Unit 1

PO Box 467, Berwick, PA 18603 (Address) Maintenance/WA # Y40258 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by Owner (Name) Type Code Symbol N/A

(Address) Authorization N/A

Expiration Date N/A

4. Identification of System 1-34G, Class III, Reactor Building Heating & Ventilation System

5. (a) Applicable Construction Code ASME III 19 71 Edition, W'72 Addenda N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 '89 No Add.

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
Mech Shock	Pacific Scientific	27958	N/A	HRC123H15	1982	REPLACED	NO
Mech Shock Arrestor	Pacific Scientific	28832	N/A	HRC123H15	1982	REPLACEMENT	NO

7. Description of Work Replaced existing snubber with same size, functionally tested replacement snubber.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐
Exempt ☒ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets i recorded at the top of this form.

This form (E00030) may be obtained from the Order Dept., ASME, 345 E. 47th St., New York, N. Y

FORM NIS-2 (Back)

9. Remarks N/A

Applicable Manufacturer's Data Reports to be attached

CERTIFICATION OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Repair or Replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed [signature] Date 6/28, 19 95

Owner or Owner's Designee, Title V.P. - NUCLEAR OPERATIONS

CERTIFICATION OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of PENNSYLVANIA and employed by ARKWRIGHT MUTUAL INSURANCE CO. of WALTHAM, MASSACHUSETTS have inspected the components described in this Owner's Report during the period 03/25/95 to 05/06/95, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

FACTORY MUTUAL ENG ASSOC.

[signature] Commissions NB 7866 PA U 2719 ANII

Inspector's Signature National Board, State, Province, and Endorsements

Date: June 28, 1995

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Pennsylvania Power & Light Co. (Name) Date 05/18/95

Two North Ninth St., Allentown, PA 18101 (Address) Sheet 1 of 1

2. Plant Susquehanna Steam Electric Station (Name) Unit 1

PO Box 467, Berwick, PA 18603 (Address) Maintenance/WA # Y40269 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by Owner (Name) Type Code Symbol N/A

(Address) Authorization N/A

Expiration Date N/A

4. Identification of System 1-45A, Class I, Feedwater Common Discharge

5. (a) Applicable Construction Code ASME III 19 71 Edition, W'72 Addenda N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 '89 No Add.

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
Mech Shock	Pacific Scientific	12967	N/A	SPDBA103H2000	1981	REPLACED	NO
Mech Shock Arrestor	Pacific Scientific	06668	N/A	SPDBA103H2000	1979	REPLACEMENT	NO

7. Description of Work Replaced existing snubber with same size, functionally tested replacement snubber.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐
Exempt ☒ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets i recorded at the top of this form.

This form (E00030) may be obtained from the Order Dept., ASME, 345 E. 47th St., New York, N. Y

FORM NIS-2 (Back)

9. Remarks N/A

Applicable Manufacturer's Data Reports to be attached

CERTIFICATION OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Repair or Replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed [signature] Date June 28, 19 95

Owner or Owner's Designee, Title V.P. - NUCLEAR OPERATIONS

CERTIFICATION OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of PENNSYLVANIA and employed by ARKWRIGHT MUTUAL INSURANCE CO. of, WALTHAM, MASSACHUSETTS have inspected the components described in this Owner's Report during the period 03/25/95 to 05/06/95, and state that, to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[signature] Commissions NB7766 PA WC24H9 AN11

Inspector's Signature

FACTORY MUTUAL ENG ASSOC.

National Board, State, Province, and Endorsements

Date: June 28, 19 95

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Pennsylvania Power & Light Co. (Name) — Date 05/18/95

Two North Ninth St., Allentown, PA 18101 (Address) — Sheet 1 of 3

2. Plant Susquehanna Steam Electric Station (Name) — Unit 1

PO Box 467, Berwick, PA 18603 (Address) — Maintenance/WA # See Sheet 3 of 3 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by Owner (Name) — Type Code Symbol N/A

(Address) — Authorization N/A

Expiration Date N/A

4. Identification of System 1-49A, Class II, LPCI/SDC RHR

5. (a) Applicable Construction Code ASME III 19 71 Edition, W'72 Addenda N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 '89 No Add.

6. Identification of Components Repaired or Replaced and Replacement Components

	Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
Item 1	1 Heavy Hex Nuts	Grinnell	Item # 14*(1)	N/A	GBB104H47	*(1)	REPLACED	NO
	1 Heavy Hex Nuts	Grinnell	Item # 14*(1)	N/A	GBB104H47	*(1)	REPLACEMENT	NO
Item 2	1 Load Stud	Grinnell	Item # 13*(1)	N/A	GBB104H8	*(1)	REPLACED	NO
	1 Load Stud	Grinnell	Item # 13*(1)	N/A	GBB104H8	*(1)	REPLACEMENT	NO
Item 3	2 Heavy Hex Nuts	Grinnell	Item # 14*(1)	N/A	GBB104H8	*(1)	REPLACED	NO
	2 Heavy Hex Nuts	Grinnell	Item # 14*(1)	N/A	GBB104H8	*(1)	REPLACEMENT	NO
	*NOTE (1): SERIAL/HEAT NUMBER AND YEAR BUILT NOT AVAILABLE.							

7. Description of Work Replaced parts with sufficient replacement parts and ground weld on rear bracket.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐
Exempt ☒ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets i recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks N/A

Applicable Manufacturer's Data Reports to be attached

CERTIFICATION OF COMPLIANCE

We certify that the statements made in the report are correct and this repair/replacement conforms to the rules of the ASME Code, Section XI.

Repair or Replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed [signature] Date June 28, 19 95

Owner or Owner's Designee, Title V.P. - NUCLEAR OPERATIONS

CERTIFICATION OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of PENNSYLVANIA and employed by ARKWRIGHT MUTUAL INSURANCE CO. of WALTHAM, MASSACHUSETTS have inspected the components described in this Owner's Report during the period 03/25/95 to 05/06/95, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

FACTORY MUTUAL ENG ASSOC.

[signature] Commissions NB 7866 PA WC 24619 ANII

Inspector's Signature National Board, State, Province, and Endorsements

Date: June 28, 19 95

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Pennsylvania Power & Light Co. (Name)
Two North Ninth St., Allentown, PA 18101 (Address)

Date 05/18/95

Sheet 2 of 3

2. Plant Susquehanna Steam Electric Station (Name)
PO Box 467, Berwick, PA 18603 (Address)

Unit 1

Maintenance/WA # See Sheet 3 of 3 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by Owner (Name)
(Address)

Type Code Symbol N/A

Authorization N/A

Expiration Date N/A

4. Identification of System 1-49A, Class II, LPCI/SDC RHR

5. (a) Applicable Construction Code ASME III 19 71 Edition, W'72 Addenda N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 '89 No Add.

6. Identification of Components Repaired or Replaced and Replacement Components

	Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
Item 4	Grind Rear Bracket	Grinnell	Item # 5*(1)	N/A	GBB109H35	*(1)	REPAIR	NO
Item 5	Mech Shock Arrestor	Pacific Scientific	28801	N/A	SPGBB115H2008	1982	REPLACED	NO
Item 6	Mech Shock Arrestor	Pacific Scientific	22875	N/A	SPGBB115H2008	1981	REPLACEMENT	NO
Item 7	Mech Shock Arrestor	Pacific Scientific	00552	N/A	GBB104H8	1978	REPLACED	NO
Item 8	Mech Shock Arrestor	Pacific Scientific	02430	N/A	GBB104H8	1991	REPLACEMENT	NO

*NOTE(1): SERIAL/HEAT NUMBER AND YEAR BUILT NOT AVAILABLE.

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Pennsylvania Power & Light Co. (Name) — Date 05/18/95

Two North Ninth St., Allentown, PA 18101 (Address) — Sheet 3 of 3

2. Plant Susquehanna Steam Electric Station (Name) — Unit 1

PO Box 467, Berwick, PA 18603 (Address) — Maintenance (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by Owner (Name) — Type Code Symbol N/A

(Address) — Authorization N/A

Expiration Date N/A

4. Identification of System 1-49A, Class II, LPCI/SDC RHR

5. (a) Applicable Construction Code ASME III 19 71 Edition, W'72 Addenda N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 '89 No Add.

6. Identification of Components Repaired or Replaced and Replacement Components

Item (s)	Susquehanna Work Authorization Number	Code Repair Form No.
1	Y40076	I95-149-007
2	Y40074	I95-149-001
3	Y40074	I95-149-001
4	Y40079	I95-149-065
5	Y40315	I95-149-021
6	Y40315	I95-149-021
7	Y40074	I95-149-002
8	Y40074	I95-149-002

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Pennsylvania Power & Light Co. (Name) Date 05/18/95

Two North Ninth St., Allentown, PA 18101 (Address) Sheet 1 of 1

2. Plant Susquehanna Steam Electric Station (Name) Unit 1

PO Box 467, Berwick, PA 18603 (Address) Maintenance/WA # Y40103 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by Owner (Name) Type Code Symbol N/A

(Address) Authorization N/A

Expiration Date N/A

4. Identification of System 1-50A, Class II, RCIC Pump DSCH

5. (a) Applicable Construction Code ASME III 19 71 Edition, W'72 Addenda N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 '89 No Add.

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
Mech Shock	Pacific Scientific	23566	N/A	SPDBB121H2012	1981	REPLACED	NO
Mech Shock Arrestor	Pacific Scientific	21148	N/A	SPDBB121H2012	1981	REPLACEMENT	NO

7. Description of Work Replaced existing snubber with same size, functionally tested replacement snubber.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐
Exempt ☒ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets i recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks N/A

Applicable Manufacturer's Data Reports to be attached

CERTIFICATION OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Repair or Replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed [signature] Date June 28, 19 95

Owner or Owner's Designee, Title V.P. - NUCLEAR OPERATIONS

CERTIFICATION OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of PENNSYLVANIA and employed by ARKWRIGHT MUTUAL INSURANCE CO. of WALTHAM, MASSACHUSETTS have inspected the components described in this Owner's Report during the period 03/25/95 to 05/06/95, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[signature] Commissions NB 7866 PA WC 24619 AUII

Inspector's Signature National Board, State, Province, and Endorsements

FACTORY MUTUAL ENG ASSOC.

Date: June 28, 19 95

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Pennsylvania Power & Light Co. (Name) Date 05/18/95

Two North Ninth St., Allentown, PA 18101 (Address) Sheet 1 of 3

2. Plant Susquehanna Steam Electric Station (Name) Unit 1

PO Box 467, Berwick, PA 18603 (Address) Maintenance/WA # See Sheet 3 of 3 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by Owner (Name) Type Code Symbol N/A

(Address) Authorization N/A

Expiration Date N/A

4. Identification of System 1-52A, Class II, HPCI Pump Discharge

5. (a) Applicable Construction Code ASME III 19 71 Edition, W'72 Addenda N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 '89 No Add.

6. Identification of Components Repaired or Replaced and Replacement Components

	Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
Item 1	1 Load Stud	Grinnell	Item # 13*(1)	N/A	EBB102H15	*(1)	REPLACED	NO
	1 Load Stud	Grinnell	Item # 13*(1)	N/A	EBB102H15	*(1)	REPLACEMENT	NO
Item 2	2 Heavy Hex Nuts	Grinnell	Item # 14*(1)	N/A	EBB102H15	*(1)	REPLACED	NO
	2 Heavy Hex Nuts	Grinnell	Item # 14*(1)	N/A	EBB102H15	*(1)	REPLACEMENT	NO
Item 3	Grind Clamp	Grinnell	Item # 12*(1)	N/A	EBB102H15	*(1)	REPAIR	NO
	*NOTE (1): SERIAL/HEAT NUMBER AND YEAR BUILT NOT AVAILABLE.							

7. Description of Work Replaced parts with sufficient replacement parts and ground 1/16" of steel from clamp.
Replaced parts with sufficient replacement parts and ground 1/16" of steel from clamp.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐ Exempt ☒ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets i recorded at the top of this form.

This form (E00030) may be obtained from the Order Dept., ASME, 345 E. 47th St., New York, N. Y

FORM NIS-2 (Back)

9. Remarks N/A

Applicable Manufacturer's Data Reports to be attached

CERTIFICATION OF COMPLIANCE

We certify that the statements made in the report are correct and this repair/replacement conforms to the rules of the ASME Code, Section XI.

Repair or Replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed [signature] Date June 28, 19 95

Owner or Owner's Designee, Title V.P. - NUCLEAR OPERATIONS

CERTIFICATION OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of PENNSYLVANIA and employed by ARKWRIGHT MUTUAL INSURANCE CO. of WALTHAM, MASSACHUSETTS have inspected the components described in this Owner's Report during the period 03/25/95 to 05/06/95, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

FACTORY MUTUAL ENG ASSOC.

[signature] Commissions NB7866 PA IC 24619 AN11

Inspector's Signature National Board, State, Province, and Endorsements

Date: June 28, 19 95.

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Pennsylvania Power & Light Co. (Name) — Date 05/18/95

Two North Ninth St., Allentown, PA 18101 (Address) — Sheet 2 of 3

2. Plant Susquehanna Steam Electric Station (Name) — Unit 1

PO Box 467, Berwick, PA 18603 (Address) — Maintenance/WA # See Sheet 3 of 3 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by Owner (Name) — Type Code Symbol N/A

(Address) — Authorization N/A

Expiration Date N/A

4. Identification of System 1-52A, Class II, HPCI Pump Discharge

5. (a) Applicable Construction Code ASME III 19 71 Edition, W'72 Addenda N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 '89 No Add.

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
Item 4 Mech Shock Arrestor	Pacific Scientific	2965	N/A	DBB120H25	1978	REPLACED	YES
Mech Shock Arrestor	Pacific Scientific	9459	N/A*	DBB120H25	1982	REPLACEMENT	NO

*NOTE(1): SERIAL/HEAT NUMBER AND YEAR BUILT NOT AVAILABLE.

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Pennsylvania Power & Light Co. (Name) — Date 05/18/95

Two North Ninth St., Allentown, PA 18101 (Address) — Sheet 3 of 3

2. Plant Susquehanna Steam Electric Station (Name) — Unit 1

PO Box 467, Berwick, PA 18603 (Address) — Maintenance (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by Owner (Name) — Type Code Symbol N/A

(Address) — Authorization N/A

Expiration Date N/A

4. Identification of System 1-52A, Class II, HPCI Pump Discharge

5. (a) Applicable Construction Code ASME III 19 71 Edition, W'72 Addenda N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 '89 No Add.

6. Identification of Components Repaired or Replaced and Replacement Components

Item (s)	Susquehanna Work Authorization Number	Code Repair Form No.
1	Y40067	I-95-152-005
2	Y40067	I-95-152-005
3	Y40067	I-95-152-036
4	Y40166	I-95-152-054

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Pennsylvania Power & Light Co. (Name) Date 05/18/95

Two North Ninth St., Allentown, PA 18101 (Address) Sheet 1 OF 6

2. Plant Susquehanna Steam Electric Station (Name) Unit 1

PO Box 467, Berwick, PA 18603 (Address) Maintenance/WA # See Sheet 5 of 6 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by Owner (Name) Type Code Symbol N/A

(Address) Authorization N/A

Expiration Date N/A

4. Identification of System 1-62A, Class I, Reactor Head & Auxiliary Systems

5. (a) Applicable Construction Code ASME III 19 71 Edition, W'72 Addenda N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 '89 No Add.

6. Identification of Components Repaired or Replaced and Replacement Components

	Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
Item 1	1 Pivot Pin	Grinnell	Item # 6*(1)	N/A	DBA102H12	*(1)	REPLACED	NO
	1 Pivot Pin	Grinnell	Item # 6*(1)	N/A	DBA102H12	*(1)	REPLACEMENT	NO
Item 2	1 Load Stud	Grinnell	Item # 13*(1)	N/A	MST22H17	*(1)	REPLACED	NO
	1 Load Stud	Grinnell	Item # 13*(1)	N/A	MST22H17	*(1)	REPLACEMENT	NO
Item 3	2 Heavy Hex Nuts	Grinnell	Item # 14*(1)	N/A	MST22H17	*(1)	REPLACED	NO
	2 Heavy Hex Nuts	Grinnell	Item # 14*(1)	N/A	MST22H17	*(1)	REPLACEMENT	NO
*NOTE (1): SERIAL/HEAT NUMBER AND YEAR BUILT NOT AVAILABLE.								

7. Description of Work Replaced parts with sufficient replacement parts.
Replaced existing snubber with same size, functionally tested replacement snubber.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐
Exempt ☒ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets i recorded at the top of this form.

* This form (E00030) may be obtained from the Order Dept., ASME, 345 E. 47th St., New York, N. Y

FORM NIS-2 (Back)

9. Remarks N/A

Applicable Manufacturer's Data Reports to be attached

CERTIFICATION OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Repair or Replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed [signature] Date June 28, 19 95

Owner or Owner's Designee, Title V.P. - NUCLEAR OPERATIONS

CERTIFICATION OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of PENNSYLVANIA and employed by ARKWRIGHT MUTUAL INSURANCE CO. of WALTHAM, MASSACHUSETTS have inspected the components described in this Owner's Report during the period 03/25/95 to 05/06/95, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[signature] Commissions NB 7866 PA WC 24619 ANII

Inspector's Signature

FACTORY MUTUAL ENG ASSOC.

National Board, State, Province, and Endorsements

Date: June 28, 19 95

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Pennsylvania Power & Light Co. (Name) — Date 05/18/95

Two North Ninth St., Allentown, PA 18101 (Address) — Sheet 2 OF 6

2. Plant Susquehanna Steam Electric Station (Name) — Unit 1

PO Box 467, Berwick, PA 18603 (Address) — Maintenance/WA # See Sheet 5 of 6 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by Owner (Name) — Type Code Symbol N/A

(Address) — Authorization N/A

Expiration Date N/A

4. Identification of System 1-62A, Class I, Reactor Head & Auxiliary Systems

5. (a) Applicable Construction Code ASME III 19 71 Edition, W'72 Addenda N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 '89 No Add.

6. Identification of Components Repaired or Replaced and Replacement Components

	Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
Item 4	1 Load Stud	Grinnell	Item #13*(1)	N/A	MST22H19	*(1)	REPLACED	NO
	1 Load Stud	Grinnell	Item #13*(1)	N/A	MST22H19	*(1)	REPLACEMENT	NO
Item 5	1 Heavy Hex Nut	Grinnell	Item #14*(1)	N/A	MST22H19	*(1)	REPLACED	NO
	1 Heavy Hex Nut	Grinnell	Item #14*(1)	N/A	MST22H19	*(1)	REPLACEMENT	NO
Item 6	1 Pivot Pin	Grinnell	Item #6*(1)	N/A	MST22H24	*(1)	REPLACED	NO
	1 Pivot Pin	Grinnell	Item #6*(1)	N/A	MST22H24	*(1)	REPLACEMENT	NO
Item 7	1 Load Stud	Grinnell	Item #13*(1)	N/A	MST22H32	*(1)	REPLACED	NO
	1 Load Stud	Grinnell	Item #13*(1)	N/A	MST22H32	*(1)	REPLACEMENT	NO
Item 8	2 Heavy Hex Nuts	Grinnell	Item #14*(1)	N/A	MST22H32	*(1)	REPLACED	NO
	2 Heavy Hex Nuts	Grinnell	Item #14*(1)	N/A	MST22H32	*(1)	REPLACEMENT	NO

*NOTE(1): SERIAL/HEAT NUMBER AND YEAR BUILT NOT AVAILABLE.

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Pennsylvania Power & Light Co. (Name) — Date 05/18/95

Two North Ninth St., Allentown, PA 18101 (Address) — Sheet 3 OF 6

2. Plant Susquehanna Steam Electric Station (Name) — Unit 1

PO Box 467, Berwick, PA 18603 (Address) — Maintenance/WA # See Sheet 5 of 6 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by Owner (Name) — Type Code Symbol N/A

(Address) — Authorization N/A

Expiration Date N/A

4. Identification of System 1-62A, Class I, Reactor Head & Auxiliary Systems

5. (a) Applicable Construction Code ASME III 19 71 Edition, W'72 Addenda N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 '89 No Add.

6. Identification of Components Repaired or Replaced and Replacement Components

	Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
Item 9	1 Load Stud	Grinnell	Item #13*(1)	N/A	MST22H47	*(1)	REPLACED	NO
	1 Load Stud	Grinnell	Item #13*(1)	N/A	MST22H47	*(1)	REPLACEMENT	NO
Item 10	2 Heavy Hex Nuts	Grinnell	Item #14*(1)	N/A	MST22H47	*(1)	REPLACED	NO
	2 Heavy Hex Nuts	Grinnell	Item #14*(1)	N/A	MST22H47	*(1)	REPLACEMENT	NO
Item 11	1 Load Stud	Grinnell	Item #13*(1)	N/A	MST22H48	*(1)	REPLACED	NO
	1 Load Stud	Grinnell	Item #13*(1)	N/A	MST22H48	*(1)	REPLACEMENT	NO
Item 12	2 Heavy Hex Nuts	Grinnell	Item #14*(1)	N/A	MST22H48	*(1)	REPLACED	NO
	2 Heavy Hex Nuts	Grinnell	Item #14*(1)	N/A	MST22H48	*(1)	REPLACEMENT	NO

*NOTE(1): SERIAL/HEAT NUMBER AND YEAR BUILT NOT AVAILABLE.

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Pennsylvania Power & Light Co. (Name) — Date 05/18/95

Two North Ninth St., Allentown, PA 18101 (Address) — Sheet 4 OF 6

2. Plant Susquehanna Steam Electric Station (Name) — Unit 1

PO Box 467, Berwick, PA 18603 (Address) — Maintenance/WA # See Sheet 6 of 6 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by Owner (Name) — Type Code Symbol N/A

(Address) — Authorization N/A

Expiration Date N/A

4. Identification of System 1-62A, Class I, Reactor Head & Auxiliary Systems

5. (a) Applicable Construction Code ASME III 19 71 Edition, W'72 Addenda N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 '89 No Add.

6. Identification of Components Repaired or Replaced and Replacement Components

	Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
Item 13	Mech Shock Arrestor	Pacific Scientific	9525	N/A	MST22H42B	1982	REPLACED	NO
Item 14	Mech Shock Arrestor	Pacific Scientific	10723	N/A	MST22H42B	1983	REPLACEMENT	NO
Item 15	Mech Shock Arrestor	Pacific Scientific	4091	N/A	MST22H47	1979	REPLACED	NO
Item 16	Mech Shock Arrestor	Pacific Scientific	6940	N/A	MST22H47	1980	REPLACEMENT	NO

*NOTE(1): SERIAL/HEAT NUMBER AND YEAR BUILT NOT AVAILABLE.

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Pennsylvania Power & Light Co. (Name) — Date 05/18/95

Two North Ninth St., Allentown, PA 18101 (Address) — Sheet 5 OF 6

2. Plant Susquehanna Steam Electric Station (Name) — Unit 1

PO Box 467, Berwick, PA 18603 (Address) — Maintenance (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by Owner (Name) — Type Code Symbol N/A

(Address) — Authorization N/A

Expiration Date N/A

4. Identification of System 1-62A, Class I, Reactor Head & Auxiliary Systems

5. (a) Applicable Construction Code ASME III 19 71 Edition, W'72 Addenda N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 '89 No Add.

6. Identification of Components Repaired or Replaced and Replacement Components

Item (s)	Susquehanna Work Authorization Number	Code Repair Form No.
1	Y40145	I95-162-048
2	Y40260	I95-162-045
3	Y40260	I95-162-045
4	Y40092	I95-162-023
5	Y40092	I95-162-023
6	H40198	I95-162-011
7	Y40262	I95-162-051
8	Y40262	I95-162-051
9	Y40093	I95-162-010
10	Y40093	I95-162-052
11	Y40265	I95-162-060
12	Y40265	I95-162-060

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Pennsylvania Power & Light Co. (Name) — Date 05/18/95

Two North Ninth St., Allentown, PA 18101 (Address) — Sheet 6 OF 6

2. Plant Susquehanna Steam Electric Station (Name) — Unit 1

PO Box 467, Berwick, PA 18603 (Address) — Maintenance (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by Owner (Name) — Type Code Symbol N/A

(Address) — Authorization N/A

Expiration Date N/A

4. Identification of System 1-62A, Class I, Reactor Head & Auxiliary Systems

5. (a) Applicable Construction Code ASME III 19 71 Edition, W'72 Addenda N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 '89 No Add.

6. Identification of Components Repaired or Replaced and Replacement Components

Item (s)	Susquehanna Work Authorization Number	Code Repair Form No.
13	Y40265	I95-162-055
14	Y40265	I95-162-055
15	Y40093	I95-162-009
16	Y40093	I95-162-009

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Pennsylvania Power & Light Co. (Name)
Two North Ninth St., Allentown, PA 18101 (Address)

Date 05/18/95

Sheet 1 of 3

2. Plant Susquehanna Steam Electric Station (Name)
PO Box 467, Berwick, PA 18603 (Address)

Unit 1

Maintenance/WA # See Sheet 3 of 3
(Repair Organization P.O. No., Job No., etc.)

3. Work Performed by Owner (Name)
(Address)

Type Code Symbol N/A

Authorization N/A

Expiration Date N/A

4. Identification of System 1-64B, Class I, Reactor Recirculation System

5. (a) Applicable Construction Code ASME III 19 71 Edition, W'72 Addenda N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 '89 No Add.

6. Identification of Components Repaired or Replaced and Replacement Components

	Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
Item 1	1 Load Stud	Grinnell	Item # 13*(1)	N/A	SPDCA102H20	*(1)	REPLACED	NO
	1 Load Stud	Grinnell	Item # 13*(1)	N/A	SPDCA102H20	*(1)	REPLACEMENT	NO
Item 2	1 Heavy Hex Nuts	Grinnell	Item # 14*(1)	N/A	SPDCA102H20	*(1)	REPLACED	NO
	1 Heavy Hex Nuts	Grinnell	Item # 14*(1)	N/A	SPDCA102H20	*(1)	REPLACEMENT	NO

*NOTE (1): SERIAL/HEAT NUMBER AND YEAR BUILT NOT AVAILABLE.

7. Description of Work Replaced parts with sufficient replacement parts and ground 1/16" from clamp. Replaced existing snubber with same size, functionally tested replacement snubber.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐
Exempt ☒ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets i recorded at the top of this form.

This form (E00030) may be obtained from the Order Dept., ASME, 345 E. 47th St., New York, N. Y

FORM NIS-2 (Back)

9. Remarks N/A

Applicable Manufacturer's Data Reports to be attached

CERTIFICATION OF COMPLIANCE

We certify that the statements made in the report are correct and this repair/replacement conforms to the rules of the ASME Code, Section XI.

Repair or Replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed [signature] Date June 28, 19 95

Owner or Owner's Designee, Title V.P. - NUCLEAR OPERATIONS

CERTIFICATION OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of PENNSYLVANIA and employed by ARKWRIGHT MUTUAL INSURANCE CO. of WALTHAM, MASSACHUSETTS have inspected the components described in this Owner's Report during the period 03/25/95 to 05/06/95, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

FACTORY MUTUAL ENG ASSOC.

[signature] Commissions NB 7866 PA/C 24619 AN/I

Inspector's Signature National Board, State, Province, and Endorsements

Date: June 28, 1995

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Pennsylvania Power & Light Co. (Name)
Two North Ninth St., Allentown, PA 18101 (Address)

Date 05/18/95

Sheet 2 of 3

2. Plant Susquehanna Steam Electric Station (Name)
PO Box 467, Berwick, PA 18603 (Address)

Unit 1

Maintenance/WA # See Sheet 3 of 3
(Repair Organization P.O. No., Job No., etc.)

3. Work Performed by Owner (Name)
(Address)

Type Code Symbol N/A

Authorization N/A

Expiration Date N/A

4. Identification of System 1-64B, Class I, Reactor Recirculation System

5. (a) Applicable Construction Code ASME III 19 71 Edition, W'72 Addenda N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 '89 No Add.

6. Identification of Components Repaired or Replaced and Replacement Components

	Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
Item 3	1 Pivot Pin	Grinnell	Item #6*(1)	N/A	RWS100H49	*(1)	REPLACED	NO
	1 Pivot Pin	Grinnell	Item #6*(1)	N/A	RWS100H49	*(1)	REPLACEMENT	NO
Item 4	Grind Clamp	Grinnell	Item #12*(1)	N/A	RWS100H12	*(1)	REPAIR	NO
ITem 5	Mech Shock Arrestor	Pacific Scientific	7227	N/A	DCA102H3	1978	REPLACED	YES
	Mech Shock Arrestor	Pacific Scientific	19548	N/A	DCA102H3	1981	REPLACEMENT	YES

*NOTE(1): SERIAL/HEAT NUMBER AND YEAR BUILT NOT AVAILABLE.

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Pennsylvania Power & Light Co. (Name)
Two North Ninth St., Allentown, PA 18101 (Address)

Date 05/18/95

Sheet 3 of 3

2. Plant Susquehanna Steam Electric Station (Name)
PO Box 467, Berwick, PA 18603 (Address)

Unit 1

Maintenance (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by Owner (Name)
(Address)

Type Code Symbol N/A

Authorization N/A

Expiration Date N/A

4. Identification of System 1-64B, Class I, Reactor Recirculation System

5. (a) Applicable Construction Code ASME III 19 71 Edition, W'72 Addenda N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 '89 No Add.

6. Identification of Components Repaired or Replaced and Replacement Components

Item (s)	Susquehanna Work Authorization Number	Code Repair Form No.
1	Y40109	I95-164-049
2	Y40109	I95-164-049
3	Y40097	I95-164-008
4	Y40266	I95-164-066
5	Y40177	I95-183-030

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Pennsylvania Power & Light Co. (Name) Date 05/18/95

Two North Ninth St., Allentown, PA 18101 (Address) Sheet 1 of 1

2. Plant Susquehanna Steam Electric Station (Name) Unit 1

PO Box 467, Berwick, PA 18603 (Address) Maintenance/WA # Y40333 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by Owner (Name) Type Code Symbol N/A

(Address) Authorization N/A

Expiration Date N/A

4. Identification of System 1-73C, Class II, Containment Atmosphere Control System

5. (a) Applicable Construction Code ASME III 19 71 Edition, W'72 Addenda N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 '89 No Add.

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
1 Load Stud	Grinnell	Item # 13*(1)	N/A	SPHCB122H2005	*(1)	REPLACED	NO
1 Load Stud	Grinnell	Item # 13*(1)	N/A	SPHCB122H2005	*(1)	REPLACEMENT	NO
1 Pivot Pin	Grinnell	Item # 6*(1)	N/A	SPHCB122H2005	*(1)	REPLACED	NO
1 Pivot Pin	Grinnell	Item # 6*(1)	N/A	SPHCB122H2005	*(1)	REPLACEMENT	NO
2 Heavy Hex Nuts	Grinnell	Item # 14*(1)	N/A	SPHCB122H2005	*(1)	REPLACED	NO
2 Heavy Hex Nuts	Grinnell	Item # 14*(1)	N/A	SPHCB122H2005	*(1)	REPLACEMENT	NO
*NOTE (1): SERIAL/HEAT NUMBER AND YEAR BUILT NOT AVAILABLE.							

7. Description of Work Replaced parts with sufficient replacement parts.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐
Exempt ☒ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets i recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks N/A

Applicable Manufacturer's Data Reports to be attached

CERTIFICATION OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Repair or Replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed [signature] Date June 28, 19 95

Owner or Owner's Designee, Title V.P. - NUCLEAR OPERATIONS

CERTIFICATION OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of PENNSYLVANIA and employed by ARKWRIGHT MUTUAL INSURANCE CO. of WALTHAM, MASSACHUSETTS have inspected the components described in this Owner's Report during the period 03/25/95 to 05/06/95, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

FACTORY MUTUAL ENG ASSOC.

Inspector's Signature Commissions National Board, State, Province, and Endorsements

Date: , 19

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Pennsylvania Power & Light Co. (Name) Date 05/18/95

Two North Ninth St., Allentown, PA 18101 (Address) Sheet 1 of 3

2. Plant Susquehanna Steam Electric Station (Name) Unit 1

PO Box 467, Berwick, PA 18603 (Address) Maintenance/WA # See Sheet 3 of 3 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by Owner (Name) Type Code Symbol N/A

(Address) Authorization N/A

Expiration Date N/A

4. Identification of System 1-83A, Class I, Main Steam Lines

5. (a) Applicable Construction Code ASME III 19 71 Edition, W'72 Addenda N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 '89 No Add.

6. Identification of Components Repaired or Replaced and Replacement Components

	Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
Item 1	2 Heavy Hex Nuts	Grinnell	Item # 14*(1)	N/A	SPDCA149H2003	*(1)	REPLACED	NO
	2 Heavy Hex Nuts	Grinnell	Item # 14*(1)	N/A	SPDCA149H2003	*(1)	REPLACEMENT	NO
" 2	2 Heavy Hex Nuts	Grinnell	Item # 14*(1)	N/A	SPDCA149H2006	*(1)	REPLACED	NO
	2 Heavy Hex Nuts	Grinnell	Item # 14*(1)	N/A	SPDCA149H2006	*(1)	REPLACEMENT	NO
" 3	1 Load Stud	Grinnell	Item # 13*(1)	N/A	SPDCA148H2010	*(1)	REPLACED	NO
	1 Load Stud	Grinnell	Item # 13*(1)	N/A	SPDCA148H2010	*(1)	REPLACEMENT	NO
*NOTE (1): SERIAL/HEAT NUMBER AND YEAR BUILT NOT AVAILABLE.								

7. Description of Work Replaced parts with sufficient replacement parts.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐
Exempt ☒ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets i recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks N/A

Applicable Manufacturer's Data Reports to be attached

CERTIFICATION OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Repair or Replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed [signature] Date June 28, 19 95

Owner or Owner's Designee, Title V.P. - NUCLEAR OPERATIONS

CERTIFICATION OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of PENNSYLVANIA and employed by ARKWRIGHT MUTUAL INSURANCE CO. of WALTHAM, MASSACHUSETTS have inspected the components described in this Owner's Report during the period 03/25/95 to 05/06/95, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

FACTORY MUTUAL ENG ASSOC.

[signature] Commissions NB 7866 PA WC 24619 AJil

Inspector's Signature National Board, State, Province, and Endorsements

Date: June 28, 19 95

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Pennsylvania Power & Light Co. (Name)
Two North Ninth St., Allentown, PA 18101 (Address)

Date 05/18/95

Sheet 2 of 3

2. Plant Susquehanna Steam Electric Station (Name)
PO Box 467, Berwick, PA 18603 (Address)

Unit 1

Maintenance/WA # See Sheet 3 of 3
(Repair Organization P.O. No., Job No., etc.)

3. Work Performed by Owner (Name)
(Address)

Type Code Symbol N/A

Authorization N/A

Expiration Date N/A

4. Identification of System 1-83A, Class I, Main Steam Lines

5. (a) Applicable Construction Code ASME III 19 71 Edition, W'72 Addenda N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 '89 No Add.

6. Identification of Components Repaired or Replaced and Replacement Components

	Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
Item 4	2 Heavy Hex Nuts	Grinnell	Item # 14*(1)	N/A	SPDCA148H2010	*(1)	REPLACED	NO
	2 Heavy Hex Nuts	Grinnell	Item # 14*(1)	N/A	SPDCA148H2010	*(1)	REPLACEMENT	NO
* 5	1 Pivot Pin	Grinnell	Item # 6*(1)	N/A	SPDCA148H2009	*(1)	REPLACED	NO
	1 Pivot Pin	Grinnell	Item # 6*(1)	N/A	SPDCA148H2009	*(1)	REPLACEMENT	NO

*NOTE(1): SERIAL/HEAT NUMBER AND YEAR BUILT NOT AVAILABLE.

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Pennsylvania Power & Light Co. (Name) — Date 05/18/95

Two North Ninth St., Allentown, PA 18101 (Address) — Sheet 3 of 3

2. Plant Susquehanna Steam Electric Station (Name) — Unit 1

PO Box 467, Berwick, PA 18603 (Address) — Maintenance (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by Owner (Name) — Type Code Symbol N/A

(Address) — Authorization N/A

Expiration Date N/A

4. Identification of System 1-83A, Class I, Main Steam Lines

5. (a) Applicable Construction Code ASME III 19 71 Edition, W'72 Addenda N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 '89 No Add.

6. Identification of Components Repaired or Replaced and Replacement Components

Item (s)	Susquehanna Work Authorization Number	Code Repair Form No.
1	Y40120	I95-183-004
2	Y40304	I95-183-038
3	Y40302	I95-183-040
4	Y40302	I95-183-040
5	Y40302	I95-183-041

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Pennsylvania Power & Light Co. (Name) — Date 05/18/95

Two North Ninth St., Allentown, PA 18101 (Address) — Sheet 1 of 3

2. Plant Susquehanna Steam Electric Station (Name) — Unit 1

PO Box 467, Berwick, PA 18603 (Address) — Maintenance/WA # See Sheet 3 of 3 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by Owner (Name) — Type Code Symbol N/A

(Address) — Authorization N/A

Expiration Date N/A

4. Identification of System 1-83A, Class II, Main Steam Lines

5. (a) Applicable Construction Code ASME III 19 71 Edition, W'72 Addenda N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 '89 No Add.

6. Identification of Components Repaired or Replaced and Replacement Components

	Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
Item 1	1 Pivot Pin	Grinnell	Item # 6*(1)	N/A	DBB102H12A	*(1)	REPLACED	NO
	1 Pivot Pin	Grinnell	Item # 6*(1)	N/A	DBB102H12A	*(1)	REPLACEMENT	NO
Item 2	1 Pivot Pin	Grinnell	Item # 6*(1)	N/A	DBB103H7A	*(1)	REPLACED	NO
	1 Pivot Pin	Grinnell	Item # 6*(1)	N/A	DBB103H7A	*(1)	REPLACEMENT	NO
Item 3	1 Pivot Pin	Grinnell	Item # 6*(1)	N/A	DBB104H13A	*(1)	REPLACED	NO
	1 Pivot Pin	Grinnell	Item # 6*(1)	N/A	DBB104H13A	*(1)	REPLACEMENT	NO
	*NOTE (1): SERIAL/HEAT NUMBER AND YEAR BUILT NOT AVAILABLE.							

7. Description of Work Replaced parts with sufficient replacement parts.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐
Exempt ☒ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets i recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks N/A

Applicable Manufacturer's Data Reports to be attached

CERTIFICATION OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Repair or Replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed [signature] Date June 28, 19 95

Owner or Owner's Designee, Title V.P. - NUCLEAR OPERATIONS

CERTIFICATION OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of PENNSYLVANIA and employed by ARKWRIGHT MUTUAL INSURANCE CO. of WALTHAM, MASSACHUSETTS have inspected the components described in this Owner's Report during the period 03/25/95 to 05/06/95, and state that, to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

FACTORY MUTUAL ENG ASSOC.

[signature] Commissions NB7866 PAUC 21619 ANII

Inspector's Signature National Board, State, Province, and Endorsements

Date: June 28, 1995

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Pennsylvania Power & Light Co. (Name)
Two North Ninth St., Allentown, PA 18101 (Address)

Date 05/18/95

Sheet 2 of 3

2. Plant Susquehanna Steam Electric Station (Name)
PO Box 467, Berwick, PA 18603 (Address)

Unit 1

Maintenance/WA # See Sheet 3 of 3
(Repair Organization P.O. No., Job No., etc.)

3. Work Performed by Owner (Name)
(Address)

Type Code Symbol N/A

Authorization N/A

Expiration Date N/A

4. Identification of System 1-83A, Class II, Main Steam Lines

5. (a) Applicable Construction Code ASME III 19 71 Edition, W'72 Addenda N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 '89 No Add.

6. Identification of Components Repaired or Replaced and Replacement Components

	Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
Item 4	Mech Shock Arrestor	Pacific Scientific	17243	N/A	SPDBB108H2008	1983	REPLACED	NO
	Mech Shock Arrestor	Pacific Scientific	13433	N/A	SPDBB108H2008	1981	REPLACEMENT	NO
Item 5	Mech Shock Arrestor	Pacific Scientific	02422	N/A	DBB104H18	1990	REPLACED	NO
	Mech Shock Arrestor	Pacific Scientific	00552	N/A	DBB104H18	1973	REPLACEMENT	NO

*NOTE(1): SERIAL/HEAT NUMBER AND YEAR BUILT NOT AVAILABLE.

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Pennsylvania Power & Light Co. (Name)
Two North Ninth St., Allentown, PA 18101 (Address)

Date 05/18/95

Sheet 3 of 3

2. Plant Susquehanna Steam Electric Station (Name)
PO Box 467, Berwick, PA 18603 (Address)

Unit 1

Maintenance (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by Owner (Name)
(Address)

Type Code Symbol N/A

Authorization N/A

Expiration Date N/A

4. Identification of System 1-83A, Class II, Main Steam Lines

5. (a) Applicable Construction Code ASME III 19 71 Edition, W'72 Addenda N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 '89 No Add.

6. Identification of Components Repaired or Replaced and Replacement Components

Item (s)	Susquehanna Work Authorization Number	Code Repair Form No.
1	Y40151	I95-183-056
2	Y40153	I95-183-042
3	Y40154	I95-183-043
4	Y40279	I95-183-026
5	Y40156	I95-183-063

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Pennsylvania Power & Light Co. (Name) Date 05/18/95

Two North Ninth St., Allentown, PA 18101 (Address) Sheet 1 of 3

2. Plant Susquehanna Steam Electric Station (Name) Unit 1

PO Box 467, Berwick, PA 18603 (Address) Maintenance/WA # See Sheet 3 of 3 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by Owner (Name) Type Code Symbol N/A

(Address) Authorization N/A

Expiration Date N/A

4. Identification of System 1-83D, Class III, Main Steam Systems

5. (a) Applicable Construction Code ASME III 19 71 Edition, W'72 Addenda N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 '89 No Add.

6. Identification of Components Repaired or Replaced and Replacement Components

	Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
Item 1	2 Heavy Hex Nuts	Grinnell	Item # 14*(1)	N/A	GBC101H272	*(1)	REPLACED	NO
	2 Heavy Hex Nuts	Grinnell	Item # 14*(1)	N/A	GBC101H272	*(1)	REPLACEMENT	NO
Item 2	1 Pivot Pin	Grinnell	Item # 6*(1)	N/A	GBC101H193	*(1)	REPLACED	NO
	1 Pivot Pin	Grinnell	Item # 6*(1)	N/A	GBC101H193	*(1)	REPLACEMENT	NO
Item 3	Grind Clamp	Grinnell	Item # 12*(1)	N/A	GBC101H193	*(1)	REPAIR	NO

*NOTE (1): SERIAL/HEAT NUMBER AND YEAR BUILT NOT AVAILABLE.

7. Description of Work Replaced parts with sufficient replacement parts and ground 1/16" of steel from clamp. Replaced existing snubber with same size, functionally tested replacement snubber.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐
Exempt ☒ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets i recorded at the top of this form.

This form (E00030) may be obtained from the Order Dept., ASME, 345 E. 47th St., New York, N. Y

FORM NIS-2 (Back)

9. Remarks N/A

Applicable Manufacturer's Data Reports to be attached

CERTIFICATION OF COMPLIANCE

We certify that the statements made in the report are correct and this repair/replacement conforms to the rules of the ASME Code, Section XI.

Repair or Replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed [signature] Date June 28, 19 95

Owner or Owner's Designee, Title V.P. - NUCLEAR OPERATIONS

CERTIFICATION OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of PENNSYLVANIA and employed by ARKWRIGHT MUTUAL INSURANCE CO. of WALTHAM, MASSACHUSETTS have inspected the components described in this Owner's Report during the period 03/25/95 to 05/06/95, and state that, to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

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FACTORY MUTUAL ENG ASSOC.

[signature] Commissions NB7766 PA WC 24619 ANII

Inspector's Signature National Board, State, Province, and Endorsements

Date: June 28, 1995

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Pennsylvania Power & Light Co. (Name)
Two North Ninth St., Allentown, PA 18101 (Address)

Date 05/18/95

Sheet 2 of 3

2. Plant Susquehanna Steam Electric Station (Name)
PO Box 467, Berwick, PA 18603 (Address)

Unit 1

Maintenance/WA # See Sheet 3 of 3
(Repair Organization P.O. No., Job No., etc.)

3. Work Performed by Owner (Name)
(Address)

Type Code Symbol N/A

Authorization N/A

Expiration Date N/A

4. Identification of System 1-83D, Class III, Main Steam Systems

5. (a) Applicable Construction Code ASME III 19 71 Edition, W'72 Addenda N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 '89 No Add.

6. Identification of Components Repaired or Replaced and Replacement Components

	Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
Item 4	1 Pivot Pin	Grinnell	Item # 6*(1)	N/A	GBC101H147	*(1)	REPLACED	NO
	1 Pivot Pin	Grinnell	Item # 6*(1)	N/A	GBC101H147	*(1)	REPLACEMENT	NO
Item 5	1 Load Stud	Grinnell	Item # 13*(1)	N/A	GBC101H272	*(1)	REPLACED	NO
	1 Load Stud	Grinnell	Item # 13*(1)	N/A	GBC101H272	*(1)	REPLACEMENT	NO
Item 6	Mech Shock	Pacific Scientific	1332	N/A	GBC101H233	1978	REPLACED	NO
	Mech Shock Arrestor	Pacific Scientific	10888	N/A	GBC101H233	1982	REPLACEMENT	NO

*NOTE(1): SERIAL/HEAT NUMBER AND YEAR BUILT NOT AVAILABLE.

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Pennsylvania Power & Light Co. (Name) — Date 05/18/95

Two North Ninth St., Allentown, PA 18101 (Address) — Sheet 3 of 3

2. Plant Susquehanna Steam Electric Station (Name) — Unit 1

PO Box 467, Berwick, PA 18603 (Address) — Maintenance (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by Owner (Name) — Type Code Symbol N/A

(Address) — Authorization N/A

Expiration Date N/A

4. Identification of System 1-83D, Class III, Main Steam Systems

5. (a) Applicable Construction Code ASME III 19 71 Edition, W'72 Addenda N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 '89 No Add.

6. Identification of Components Repaired or Replaced and Replacement Components

Item (s)	Susquehanna Work Authorization Number	Code Repair Form No.
1	Y40081	I95-183-046
2	Y40081	I95-183-047
3	Y40081	I95-183-047
4	Y40224	I95-183-044
5	Y40081	I95-183-022
6	Y40277	I95-183-062

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Pennsylvania Power & Light Co. (Name) — Date 05/18/95

Two North Ninth St., Allentown, PA 18101 (Address) — Sheet 1 of 1

2. Plant Susquehanna Steam Electric Station (Name) — Unit 1

PO Box 467, Berwick, PA 18603 (Address) — Maintenance/WA # H40198 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by Owner (Name) — Type Code Symbol N/A

(Address) — Authorization N/A

Expiration Date N/A

4. Identification of System 1-83E, Class III, Main Steam System

5. (a) Applicable Construction Code ASME III 19 71 Edition, W'72 Addenda N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 '89 No Add.

6. Identification of Components Repaired or Replaced and Replacement Components

Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
Mech Shock	Pacific Scientific	16396	N/A	SPHCC138H2008	1980	REPLACED	NO
Mech Shock Arrestor	Pacific Scientific	23570	N/A	SPHCC138H2008	1981	REPLACEMENT	NO

7. Description of Work Replaced existing snubber with same size, functionally tested replacement snubber.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐
Exempt ☒ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ in. x 11 in., (2) information in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number of sheets i recorded at the top of this form.

This form (E00030) may be obtained from the Order Dept., ASME, 345 E. 47th St., New York, N. Y

FORM NIS-2 (Back)

9. Remarks N/A

Applicable Manufacturer's Data Reports to be attached

CERTIFICATION OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Repair or Replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed [signature] Date June 28, 19 95

Owner or Owner's Designee, Title V.P. - NUCLEAR OPERATIONS

CERTIFICATION OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of PENNSYLVANIA and employed by ARKWRIGHT MUTUAL INSURANCE CO. of WALTHAM, MASSACHUSETTS have inspected the components described in this Owner's Report during the period 03/25/95 to 05/06/95, and state that, to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

FACTORY MUTUAL ENG ASSOC.

[signature] Commissions NB-7866 PA WC-24619 ANII

Inspector's Signature National Board, State, Province, and Endorsements

Date: June 28, 19 95

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Pennsylvania Power & Light Co. (Name) — Date 05/18/95

Two North Ninth St., Allentown, PA 18101 (Address) — Sheet 1 of 2

2. Plant Susquehanna Steam Electric Station (Name) — Unit 1

PO Box 467, Berwick, PA 18603 (Address) — Maintenance/WA # See Sheet 2 of 2 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by Owner (Name) — Type Code Symbol N/A

(Address) — Authorization N/A

Expiration Date N/A

4. Identification of System 1-83F, Class I, Main Steam System

5. (a) Applicable Construction Code ASME III 19 71 Edition, W'72 Addenda N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 '89 No Add.

6. Identification of Components Repaired or Replaced and Replacement Components

	Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
Item 1	Mech Shock Arrestor	Pacific Scientific	4191	N/A	SPDCA127H156	1978	REPLACED	YES
Item 2	Mech Shock Arrestor	Pacific Scientific	23591	N/A	SPDCA127H156	1981	REPLACEMENT	NO
Item 3	Mech Shock Arrestor	Pacific Scientific	23571	N/A	SPDCA127H161	1978	REPLACED	NO
Item 4	Mech Shock Arrestor	Pacific Scientific	27922	N/A	SPDCA127H161	1982	REPLACEMENT	NO
Item 5	Mech Shock Arrestor	Pacific Scientific	10948	N/A	SPDCA128H138	1979	REPLACED	NO
Item 6	Mech Shock Arrestor	Pacific Scientific	16424	N/A	SPDCA128H138	1980	REPLACEMENT	NO

7. Description of Work Replaced existing snubbers with same size, functionally tested replacement snubbers.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐
Exempt ☒ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ in. x 11 in., (2 informa-tion in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number o sheets is recorded at the top of this form.

This form (E00030) may be obtained from the Order Dept., ASME, 345 E. 47th St., New York, N. Y

FORM NIS-2 (Back)

9. Remarks N/A

Applicable Manufacturer's Data Reports to be attached

CERTIFICATION OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Repair or Replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed [signature] Date June 28, 19 95

Owner or Owner's Designee, Title V.P. - NUCLEAR OPERATIONS

CERTIFICATION OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of PENNSYLVANIA and employed by ARKWRIGHT MUTUAL INSURANCE CO. of WALTHAM, MASSACHUSETTS have inspected the components described in this Owner's Report during the period 03/25/95 to 05/06/95, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

FACTORY MUTUAL ENG ASSOC.

[signature] Commissions NB7866 PA WC 24619 AN 11

Inspector's Signature National Board, State, Province, and Endorsements

Date: June 28, 19 95

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Pennsylvania Power & Light Co. (Name) — Date 05/18/95

Two North Ninth St., Allentown, PA 18101 (Address) — Sheet 2 of 2

2. Plant Susquehanna Steam Electric Station (Name) — Unit 1

PO Box 467, Berwick, PA 18603 (Address) — Maintenance (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by Owner (Name) — Type Code Symbol N/A

(Address) — Authorization N/A

Expiration Date N/A

4. Identification of System 1-83F, Class I, Main Steam System

5. (a) Applicable Construction Code ASME III 19 71 Edition, W'72 Addenda N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 '89 No Add.

6. Identification of Components Repaired or Replaced and Replacement Components

Item (s)	Susquehanna Work Authorization Number	Code Repair Form No.
1	Y40114	I95-183-015
2	Y40114	I95-183-015
3	Y40114	I95-183-016
4	Y40114	I95-183-016
5	Y40117	I95-183-014
6	Y40117	I95-183-014

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Pennsylvania Power & Light Co. (Name) Date 05/18/95

Two North Ninth St., Allentown, PA 18101 (Address) Sheet 1 of 3

2. Plant Susquehanna Steam Electric Station (Name) Unit 1

PO Box 467, Berwick, PA 18603 (Address) Maintenance/WA # See Sheet 3 of 3 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by Owner (Name) Type Code Symbol N/A

(Address) Authorization N/A

Expiration Date N/A

4. Identification of System 1-83H, Class II, Main Steam Systems

5. (a) Applicable Construction Code ASME III 19 71 Edition, W'72 Addenda N/A Code Case

(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 '89 No Add.

6. Identification of Components Repaired or Replaced and Replacement Components

	Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
Item 1	1 Load Stud	Grinnell	Item # 13*(1)	N/A	SPDBB124H4	*(1)	REPLACED	NO
Item 2	1 Load Stud	Grinnell	Item # 13*(1)	N/A	SPDBB124H4	*(1)	REPLACEMENT	NO
Item 3	1 Pivot Pin	Grinnell	Item # 6*(1)	N/A	SPDBB124H4	*(1)	REPLACED	NO
Item 4	1 Pivot Pin	Grinnell	Item # 6*(1)	N/A	SPDBB124H4	*(1)	REPLACEMENT	NO
	*NOTE (1): SERIAL/HEAT NUMBER AND YEAR BUILT NOT AVAILABLE.							

7. Description of Work Replaced parts with sufficient replacement parts.
Replaced existing snubbers with same size, functionally tested replacement snubbers.

8. Tests Conducted: Hydrostatic ☐ Pneumatic ☐ Nominal Operating Pressure ☐
Exempt ☒ Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8½ in. x 11 in., (2 informa-tion in items 1 through 6 on this report is included on each sheet, and (3) each sheet is numbered and the number o sheets is recorded at the top of this form.

This form (E00030) may be obtained from the Order Dept., ASME, 345 E. 47th St., New York, N. Y

FORM NIS-2 (Back)

9. Remarks N/A

Applicable Manufacturer's Data Reports to be attached

CERTIFICATION OF COMPLIANCE

We certify that the statements made in the report are correct and this replacement conforms to the rules of the ASME Code, Section XI.

Repair or Replacement

Type Code Symbol Stamp N/A

Certificate of Authorization No. N/A Expiration Date N/A

Signed [signature] Date June 28, 19 95

Owner or Owner's Designee, Title V.P. - NUCLEAR OPERATIONS

CERTIFICATION OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State or Province of PENNSYLVANIA and employed by ARKWRIGHT MUTUAL INSURANCE CO. of WALTHAM, MASSACHUSETTS have inspected the components described in this Owner's Report during the period 03/25/95 to 05/06/95, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the requirements of the ASME Code, Section XI.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the examinations and corrective measures described in this Owner's Report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

[signature] Commissions NB7866 PA WC 24619 AN11

Inspector's Signature

FACTORY MUTUAL ENG ASSOC.

National Board, State, Province, and Endorsements

Date: June 28, 19 95

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Pennsylvania Power & Light Co. (Name) — Date 05/18/95

Two North Ninth St., Allentown, PA 18101 (Address) — Sheet 2 of 3

2. Plant Susquehanna Steam Electric Station (Name) — Unit 1

PO Box 467, Berwick, PA 18603 (Address) — Maintenance/WA # See Sheet 3 of 3 (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by Owner (Name) — Type Code Symbol N/A

(Address) — Authorization N/A

Expiration Date N/A

4. Identification of System 1-83H, Class II, Main Steam Systems

5. (a) Applicable Construction Code ASME III 19 71 Edition, W'72 Addenda N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 '89 No Add.

6. Identification of Components Repaired or Replaced and Replacement Components

	Name of Component	Name of Manufacturer	Manufacturer Serial No.	National Board No.	Other Identification	Year Built	Repaired, Replaced, or Replacement	ASME Code Stamped (Yes or No)
Item 5	Mech Shock Arrestor	Pacific Scientific	5010	N/A	SPD8B125H3	1978	REPLACED	NO
Item 6	Mech Shock Arrestor	Pacific Scientific	18577	N/A	SPD8B125H3	1981	REPLACEMENT	NO
Item 7	Mech Shock Arrestor	Pacific Scientific	10918	N/A	SPG8B134H3	1979	REPLACED	NO
ITem 8	Mech Shock Arrestor	Pacific Scientific	28856	N/A	SPG8B134H3	1982	REPLACEMENT	YES

FORM NIS-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Pennsylvania Power & Light Co. (Name) — Date 05/18/95

Two North Ninth St., Allentown, PA 18101 (Address) — Sheet 3 of 3

2. Plant Susquehanna Steam Electric Station (Name) — Unit 1

PO Box 467, Berwick, PA 18603 (Address) — Maintenance (Repair Organization P.O. No., Job No., etc.)

3. Work Performed by Owner (Name) — Type Code Symbol N/A

(Address) — Authorization N/A

Expiration Date N/A

4. Identification of System 1-83H, Class II, Main Steam Systems

5. (a) Applicable Construction Code ASME III 19 71 Edition, W'72 Addenda N/A Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 '89 No Add.

6. Identification of Components Repaired or Replaced and Replacement Components

Item (s)	Susquehanna Work Authorization Number	Code Repair Form No.
1	Y40280	I95-183-037
2	Y40280	I95-183-037
3	Y40280	I95-183-037
4	Y40280	I95-183-037
5	Y40106	I95-183-020
6	Y40106	I95-183-020
7	Y40320	I95-183-029
8	Y40320	I95-183-029

REACTOR PRESSURE VESSEL

EXTERNAL EXAMINATIONS

Susquehanna Steam Electric Station
Unit 1 RPV Inservice Examination
Eighth Refueling and Inspection Outage

Report of Examination Results

Owner:	**Plant:**
Pennsylvania Power and Light Company Two North Ninth Street Allentown, PA 18601	Susquehanna Steam Electric Station Unit 1 P. O. Box 467 Berwick, PA 18603
Commercial Service Date:	**Ratings:**
June 8, 1983	3,293 Mwt 1,084.8 MWe
Manufacturer:	**National Board Number:**
Chicago Bridge and Iron Company	3686

Prepared By:

W. F. Miller
Sr. NDE Specialist
GENE, NP&SD
Inspection Services

Reviewed By:

R. A. Seals
Project Manager
GENE, NP&SD
Inspection Services

Approved By:

T.K.Steingass
ISI Supervisor
PP&L Company
Susquehanna Steam
Electric Station

REACTOR PRESSURE VESSEL
EXTERNAL EXAMINATIONS

SUSQUEHANNA STEAM ELECTRIC STATION

UNIT 1 RPV INSERVICE EXAMINATON

EIGHTH REFUELING AND INSPECTION OUTAGE

REPORT OF EXAMINATION RESULTS

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UNIT 1 RPV INSERVICE EXAMINATION

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SECTION I

INTRODUCTION

This report contains the results of the inservice examinations performed on the Susquehanna Steam Electric Station Unit 1 Reactor Pressure Vessel. National Board No. 3686, during the Eighth Refueling and Inspection outage. Examinations were performed in the period from March 25, 1995 through May 6, 1995.

The examinations were performed in accordance with the requirements of:

1. The ASME Boiler and Pressure Vessel Code, 1989 Edition, without Addenda.
   a. Section V, Nondestructive Examination.
   b. Section XI, Rules for Inservice Inspection of Nuclear Power Plant Components - Division 1.
2. United States Code of Federal Regulations, Title 10 Energy.
   a. 10CFR21
   b. 10CFR50 Apendix B
   c. 10CFR50 Subpart 55
3. United States Nuclear Regulatory Commission Documents
   a. Regulatory Guide 1.150 Ultrasonic Testing of Reactor Vessel Welds during Preservice and Inservice Examinations, Revision 1, Alternate method.
   b. NUREG 0619 BWR Feedwater Nozzle and Control Rod Drive Return Line Nozzle Cracking.
4. American Society for Nondestructive Testing (ASNT) Documents
   a. SNT-TC-1A Personnel Qualification and Certification for Nondestructive Testing, 1984 Edition.

5. Pennsylvania Power and Light Co. ISI Program Documents

a. ISI-T-106/206 Revision 0, "Inservice Inspection Program Plan For The Second Inservice Inspection Interval".

b. ISI-T-108/208 Revision 0, "Class 1, 2, and 3 Components And Component Supports For The Second Inservice Inspection Interval".

Examinations were performed on ASME Section XI Category B-A, B-D, B-G-2 and B-J Components.

Augmented examinations were performed on PP&L Category AUG-2 and AUG-3 Components.

Remote Automated Ultrasonic examinations were performed on accessible portions of RPV shell assembly welds, RPV nozzle to vessel welds, RPV nozzle inside radiused sections, RPV nozzle bore sections, and RPV nozzle to safe end welds. The examinations were performed from the outer surface of the components. The items examined are listed in Section II.

Manual Ultrasonic, Magnetic Particle and Visual (VT-1) examinations were performed on accessible portions of RPV shell assembly welds, RPV nozzle to vessel welds, RPV nozzle to safe end welds and RPV bolting. The examinations were performed from the outer surface of the components. The items examined are listed in section II.

Original examination data, calibration data, personnel certifications, equipment certifications, material certifications, examination procedures, drawings, and evaluations that pertain to these examinations are being retained by PP&L. These documents are controlled by PP&L and are available for review at the Susquehanna site.

A Summary Table for each examination performed, appears in Section III of this Report.

Summary Reports containing the Regulatory Guide 1.150 required documentation, the description of examination coverage, the comparison of results with those of previous examinations, and a description of equipment characteristics appear in Section IV of this Report.

SUSQUEHANNA STEAM ELECTRIC STATION

UNIT 1 RPV INSERVICE EXAMINATION

EIGHTH REFUELING AND INSPECTION OUTAGE

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SCOPE OF EXAMS WITH WELD LOCATION DRAWINGS

SUSQUEHANNA STEAM ELECTRIC STATION

UNIT 1 RPV INSERVICE EXAMINATION

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SECTION II

SCOPE

The following items, listed by examination category, were examined during the Susquehanna Unit 1 Eighth Refueling and Inspection outage. The items examined and the examination(s) performed are listed below. The examination results are detailed in Section III of the report. The extent of examination coverage is detailed in Sections III and IV of this report.

I. ASME SECTION XI Examination Category B-A items examined in accordance with ASME Section XI and USNRC Reg. Guide 1.150 requirements.

AA (RPV Circumferential Weld)	Full Length	Auto & Manual UT
AF (Shell to Flange Weld)	0° to 120°	Manual UT
BA (RPV Vertical Weld)	Partial	Auto UT
BB (RPV Vertical Weld)	Full Length	Auto & Manual UT
BC (RPV Vertical Weld)	Full Length	Auto & Manual UT

II. ASME SECTION XI Examination Category B-D items examined in accordance with ASME Section and USNRC Reg. Guide 150 requirements.

N1A (Weld & Inside Radius)	Full Length	Auto & Manual UT
N2A (Weld & Inside Radius)	Full Length	Auto UT
N2F (Weld & Inside Radius)	Full Length	Auto UT
N4A (Weld)	Partial	Auto & Manual UT

N4B(Weld)	Full Length	Auto & Manual UT
N4C (Weld)	Full Length	Auto & Manual UT
N4D (Weld)	Full Length	Auto & Manual UT
N4E (Weld)	Full Length	Auto UT
N4F (Weld)	Full Length	Auto UT

III. ASME Section XI Examination Category B-G-2 items examined in accordance with ASME Section XI requirements.

CRD-10-31-BLT (Bolting)	8 Bolts	Visual VT-1
CRD-10-43-BLT (Bolting)	8 Bolts	Visual VT-1
CRD-14-27-BLT (Bolting)	8 Bolts	Visual VT-1
CRD-14-31-BLT (Bolting)	8 Bolts	Visual VT-1
CRD-14-35-BLT (Bolting)	8 Bolts	Visual VT-1
CRD-18-43-BLT (Bolting)	8 Bolts	Visual VT-1
CRD-18-59-BLT (Bolting)	8 Bolts	Visual VT-1
CRD-26-27-BLT (Bolting)	8 Bolts	Visual VT-1
CRD-30-03-BLT (Bolting)	8 Bolts	Visual VT-1
CRD-30-43-BLT (Bolting)	8 Bolts	Visual VT-1
CRD-34-59-BLT (Bolting)	8 Bolts	Visual VT-1
CRD-38-15-BLT (Bolting)	8 Bolts	Visual VT-1
CRD-38-59-BLT (Bolting)	8 Bolts	Visual VT-1
CRD-42-11-BLT (Bolting)	8 Bolts	Visual VT-1
CRD-46-07-BLT (Bolting)	8 Bolts	Visual VT-1
CRD-46-19-BLT (Bolting)	8 Bolts	Visual VT-1
CRD-50-19-BLT (Bolting)	8 Bolts	Visual VT-1
CRD-50-47-BLT (Bolting)	8 Bolts	Visual VT-1
CRD-54-15-BLT (Bolting)	8 Bolts	Visual VT-1
CRD-54-19-BLT (Bolting)	8 Bolts	Visual VT-1

IV. ASME Section XI Examination Category B-J items examined in Accordance with ASME Section XI requirements.

N4A (N-SE weld)	Full Length	Auto & Manual UT, MT
N4B (N-SE weld)	Full Length	Auto & Manual UT, MT
N4C (N-SE weld)	Full Length	Auto & Manual UT, MT
N4C (N-SE weld)	Full Length	Auto & Manual UT, MT
N4D (N-SE weld)	Full Length	Auto & ManualUT, MT
N4E (N-SE weld)	Full Length	Auto & Manual UT, MT
N4F (N-SE weld)	Full Length	Auto & Manual UT, MT

V. PP&L Examination Category AUG 2 items examined in accordance with USNRC NUREG-0313 requirements. These examinations were performed after MSIP application. The Post-MSIP exams are required over and above the routine exams required by Category C of NUREG-0313.

N1B (N-SE weld)	Full Length	Auto UT
N2B (N-SE weld)	Full Length	Auto UT
N2C (N-SE weld)	Full Length	Auto UT
N2D (N-SE weld)	Full Length	Auto UT
N2E (N-SE weld)	Full Length	Auto UT
N2G (N-SE weld)	Full Length	Auto UT
N2H (N-SE weld)	Full Length	Auto UT
N5A (N-SE weld)	Partial	Auto & Manual UT
N5A (SE to extension)	Full Length	Manual UT
N5B (N-SE weld)	Full Length	Manual UT
N5B (SE to extension)	Full Length	Manual UT
N8A (N-SE weld)	Full Length	Manual UT
N8A (SE to P-Seal)	Full Length	Manual UT
N8B (N-SE weld)	Full Length	Manual UT
N8B (SE to P-Seal)	Full Length	Manual UT

VI. PP&L Examination Category AUG 3 items examined in accordance with USNRC NUREG-0619 requirements.

N4A (NIR & Bore)	Partial	Auto & Manual UT
N4A (N-SE weld)	Full Length	Auto & Manual UT
N4B (NIR & Bore)	Partial	Auto & ManualUT
N4B (N-SE weld)	Full Length	Auto & Manual UT
N4C (NIR & Bore)	Full Length	Auto & ManualUT
N4C (N-SE weld)	Full Length	Auto & ManualUT
N4D (NIR & Bore)	Partial	Auto & ManualUT
N4D (N-SE weld)	Full Length	Auto & ManualUT
N4E (NIR & Bore)	Full Length	Auto & ManualUT
N4E (N-SE weld)	Full Length	Auto & ManualUT
N4F (NIR & Bore)	Full Length	Auto & ManualUT
N4F (N-SE weld)	Full Length	Auto & Manual UT

SUSQUEHANNA STEAM ELECTRIC STATION

UNIT 1 RPV INSERVICE EXAMINATION

EIGHTH REFUELING AND INSPECTION OUTAGE

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SECTION III

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RECORDABLE INDICATION DATA

SUSQUEHANNA STEAM ELECTRIC STATION

UNIT 1 RPV INSERVICE EXAMINATION

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EXAMINATION CATEGORY B-A

CATEGORY B-A

PRESSURE RETAINING WELDS IN REACTOR VESSEL

WELD TYPE	*WELD ID*	*ITEM No.*	*PROCEDURE*	*EXAM TYPE*	*REMARKS*
REACTOR VESSEL CIRCUMFERENTIAL Bottom Head to Shell Course 1	AA Exam Number 625019 ASME XI EXAM	B 1.11	GE-ISI-435 Rev. 2 NUT-6 Rev.2	0° WM C 45° R 60° R 0° WM C 45° R 60° R	NRI NRI NRI NRI NRI NRI Composite Auto/Manual Exam was limited to 99.0% of the Code requirement by N1 A & B and N8 A & B nozzles.
	AA Exam Number 625019 REG. GUIDE 1.150 INNER 25% of T	B 1.11	GE-ISI-435 Rev. 2 NUT-6 Rev. 2	45° T 45° NT 60° T 60° NT	NRI NRI NRI NRI
	AA Exam Number 625019 REG. GUIDE 1.150 OUTER 75% of T	B 1.11	GE-ISI-435 Rev. 2 NUT-6 Rev. 2	45° T 45° NT 60° T 60° NT	NRI NRI NRI NRI

NRI = NO RECORDABLE INDICATIONS
C = COMPLETE EXAM R = RESTRICTED EXAM
T = TRAVELING INDICATION PER REG GUIDE 1.150
NT = NONTRAVELING INDICATION PER REG GUIDE 1.150

CATEGORY B-A

PRESSURE RETAINING WELDS IN REACTOR VESSEL

WELD TYPE	*WELD ID*	*ITEM No.*	*PROCEDURE*	*EXAM TYPE*	*REMARKS*
REACTOR VESSEL CIRCUMFERENTIAL Shell Course 5 to RPV Flange	AF 0° - 120° Exam Number 625023 ASME XI EXAM	B 1.30	NUT-6 Rev. 2 GE-ISI-423 Rev. 1	0° WM C 45° C 60° C 0° FSS C	NRI Composite Examination, Combination of these examinations yields coverage of 100% of this segment of the weld. NRI
	AF 0° - 120° Exam Number 625023 REG. GUIDE 1.150 INNER 25% of T	B 1.30	NUT-6 Rev. 2	45° T 45° NT 60° T 60° NT	NRI NRI NRI NRI
	AF 0° - 120° Exam Number 625023 REG. GUIDE 1.150 OUTER 75% of T	B 1.30	NUT-6 Rev. 2	45° T 45° NT 60° T 60° NT	NRI NRI NRI NRI

NRI = NO RECORDABLE INDICATIONS
C = COMPLETE EXAM R = RESTRICTED EXAM
T = TRAVELING INDICATION PER REG GUIDE 1.150
NT = NONTRAVELING INDICATION PER REG GUIDE 1.150

CATEGORY B-A

PRESSURE RETAINING WELDS IN REACTOR VESSEL

WELD TYPE	*WELD ID*	*ITEM No.*	*PROCEDURE*	*EXAM TYPE*	*REMARKS*
REACTOR VESSEL LONGITUDINAL	BA Exam Number 625020 ASME XI EXAM	B 1.12	GE-ISI-435 Rev. 2	0° WM R 45° R 60° R 0° WM 45° 60°	NRI Auto examination was limited to 86.0% of the Code requirement NRI by Nozzle N2K. NRI N/A Manual examinations to be performed during R & IO9. N/A Coverage will then be 100%. N/A
	BA Exam Number 625020 REG. GUIDE 1.150 INNER 25% of T	B 1.12	GE-ISI-435 Rev. 2	45° T 45° NT 60° T 60° NT	NRI NRI NRI NRI
	BA Exam Number 625020 REG. GUIDE 1.150 OUTER 75% of T	B 1.12	GE-ISI-435 Rev. 2	45° T 45° NT 60° T 60° NT	NRI NRI NRI NRI

NRI = NO RECORDABLE INDICATIONS
C = COMPLETE EXAM R = RESTRICTED EXAM
T = TRAVELING INDICATION PER REG GUIDE 1.150
NT = NONTRAVELING INDICATION PER REG GUIDE 1.150

CATEGORY B-A

PRESSURE RETAINING WELDS IN REACTOR VESSEL

WELD TYPE	*WELD ID*	*ITEM No.*	*PROCEDURE*	*EXAM TYPE*	*REMARKS*
REACTOR VESSEL LONGITUDINAL	BB Exam Number 625021 ASME XI EXAM	B 1.12	GE-ISI-435 Rev. 2 NUT-6 Rev. 2	0° WM R 45° R 60° R 0° WM 45° 60°	NRI NRI NRI NRI NRI NRI	Composite Auto/Manual Examination coverage was 100%.
	BB Exam Number 625021 REG. GUIDE 1.150 INNER 25% of T	B 1.12	GE-ISI-435 Rev. 2 NUT-6 Rev. 2	45° T 45° NT 60° T 60° NT	NRI NRI NRI NRI	
	BB Exam Number 625021 REG. GUIDE 1.150 OUTER 75% of T	B 1.12	GE-ISI-435 Rev. 2 NUT-6 Rev. 2	45° T 45° NT 60° T 60° NT	NRI NRI NRI NRI	

NRI = NO RECORDABLE INDICATIONS
C = COMPLETE EXAM R = RESTRICTED EXAM
T = TRAVELING INDICATION PER REG GUIDE 1.150
NT = NONTRAVELING INDICATION PER REG GUIDE 1.150

CATEGORY B-A

PRESSURE RETAINING WELDS IN REACTOR VESSEL

WELD TYPE	*WELD ID*	*ITEM No.*	*PROCEDURE*	*EXAM TYPE*	*REMARKS*
REACTOR VESSEL LONGITUDINAL	BC Exam Number 625022 ASME XI EXAM	B 1.12	GE-ISI-435 Rev. 2 NUT-6 Rev. 2	0° WM R 45° R 60° R 0° WM 45° 60°	NRI NRI NRI NRI NRI NRI	Composite Auto/Manual Examination coverage was 100%.
	BC Exam Number 625022 REG. GUIDE 1.150 INNER 25% of T	B 1.12	GE-ISI-435 Rev. 2 NUT-6 Rev. 2	45° T 45° NT 60° T 60° NT	NRI NRI NRI NRI	
	BC Exam Number 625022 REG. GUIDE 1.150 OUTER 75% of T	B 1.12	GE-ISI-435 Rev. 2 NUT-6 Rev. 2	45° T 45° NT 60° T 60° NT	NRI NRI NRI NRI	

NRI = NO RECORDABLE INDICATIONS
C = COMPLETE EXAM R = RESTRICTED EXAM
T = TRAVELING INDICATION PER REG GUIDE 1.150
NT = NONTRAVELING INDICATION PER REG GUIDE 1.150

SUSQUEHANNA STEAM ELECTRIC STATION

UNIT 1 RPV INSERVICE EXAMINATION

EIGHTH REFUELING AND INSPECTION OUTAGE

REPORT OF EXAMINATION RESULTS

EXAMINATION CATEGORY B-D

CATEGORY B-D

FULL PENETRATION WELDS OF NOZZLES IN VESSELS

WELD TYPE	*WELD ID*	*ITEM No.*	*PROCEDURE*	*EXAM TYPE*	*REMARKS*
NOZZLE TO VESSEL WELD	N1A Exam Number 625027 ASME XI EXAM	B 3.90	GE-ISI-435 Rev. 2 NUT-6 Rev. 2	0° WM R 45° R 60° R 0° WM R 45° R 60° R	NRI NRI NRI This is a one-sided examination. Nozzle configuration limits the accessible portion of the weld to 61.7% of the IWB-2500-7(b) volume.
NOZZLE INSIDE RADIUS SECTION	Exam Number 625024	B3.100	GE-ISI-411 Rev. 2	ZONE 1 ZONE 2A	NRI The inside radius exam was 100% of the Code requirement NRI
	N1A Exam Number 625027 REG. GUIDE 1.150 INNER 25% of T	B 3.90	GE-ISI-435 Rev. 2 NUT-6 Rev. 2	45° T 45° NT 60° T 60° NT	NRI NRI NRI NRI
	N1A Exam Number 625027 REG. GUIDE 1.150 OUTER 75% of T	B 3.90	GE-ISI-435 Rev. 2 NUT-6 Rev. 2	45° T 45° NT 60° T 60° NT	NRI NRI NRI NRI

NRI = NO RECORDABLE INDICATIONS
C = COMPLETE EXAM R = RESTRICTED EXAM
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CATEGORY B-D

FULL PENETRATION WELDS OF NOZZLES IN VESSELS

WELD TYPE	*WELD ID*	*ITEM No.*	*PROCEDURE*	*EXAM TYPE*	*REMARKS*
NOZZLE TO VESSEL WELD	N2A Exam Number 625028 ASME XI EXAM	B 3.90	GE-ISI-435 Rev. 2	0° WM R 45° R 60° R 0° WM N/A 45° N/A 60° N/A	NRI NRI NRI This is a one-sided examination. Nozzle configuration limits the accessible portion of the weld to 65.6% of the IWB-2500-7(b) volume.
NOZZLE INSIDE RADIUS SECTION	Exam Number 625025	B3.100	GE-ISI-411 Rev. 2	ZONE 1 ZONE 2A	NRI The inside radius exam was 100% of the Code requirement NRI
	N2A Exam Number 625028 REG. GUIDE 1.150 INNER 25% of T	B 3.90	GE-ISI-435 Rev. 2	45° T 45° NT 60° T 60° NT	NRI NRI NRI NRI
	N2A Exam Number 625028 REG. GUIDE 1.150 OUTER 75% of T	B 3.90	GE-ISI-435 Rev. 2	45° T 45° NT 60° T 60° NT	NRI NRI NRI NRI

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CATEGORY B-D

FULL PENETRATION WELDS OF NOZZLES IN VESSELS

WELD TYPE	*WELD ID*	*ITEM No.*	*PROCEDURE*	*EXAM TYPE*	*REMARKS*
NOZZLE TO VESSEL WELD	N2F Exam Number 625029 ASME XI EXAM	B 3.90	GE-ISI-435 Rev. 2	0° WM R 45° R 60° R	NRI NRI NRI This is a one-sided examination. Nozzle configuration limits the accessible portion of the weld to 65.4 % of the IWB-2500-7(b) volume.
NOZZLE INSIDE RADIUS SECTION	Exam Number 625026	B3.100	GE-ISI-411 Rev. 2	ZONE 1 ZONE 2A	NRI The inside radius exam was 100% of the Code requirement NRI
	N2F Exam Number 625029 REG. GUIDE 1.150 INNER 25% of T	B 3.90	GE-ISI-435 Rev. 2	45° T 45° NT 60° T 60° NT	NRI NRI NRI NRI
	N2F Exam Number 625029 REG. GUIDE 1.150 OUTER 75% of T	B 3.90	GE-ISI-435 Rev. 2	45° T 45° NT 60° T 60° NT	NRI NRI NRI NRI

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CATEGORY B-D

FULL PENETRATION WELDS OF NOZZLES IN VESSELS

WELD TYPE	*WELD ID*	*ITEM No.*	*PROCEDURE*	*EXAM TYPE*	*REMARKS*
NOZZLE TO VESSEL WELD	N4A Exam Number 625030 ASME XI EXAM	B 3.90	GE-ISI-435 Rev. 2 NUT-6 Rev. 2	0° WM R 45° R 60° R	NRI NRI NRI This is a one-sided examination. Nozzle configuration limits the accessible portion of the weld to 62.0% of the IWB-2500-7(b) volume.
NOZZLE INSIDE RADIUS SECTION	Exam Number N/A	B3.100	GE-ISI-411 Rev. 2	N/A N/A	
	N4A Exam Number 625030 REG. GUIDE 1.150 INNER 25% of T	B 3.90	GE-ISI-435 Rev. 2 NUT-6 Rev. 2	45° T 45° NT 60° T 60° NT	NRI 4 Spot indications, acceptable. NRI NRI
	N4A Exam Number 625030 REG. GUIDE 1.150 OUTER 75% of T	B 3.90	GE-ISI-435 Rev. 2 NUT-6 Rev. 2	45° T 45° NT 60° T 60° NT	NRI NRI NRI NRI

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CATEGORY B-D

FULL PENETRATION WELDS OF NOZZLES IN VESSELS

WELD TYPE	*WELD ID*	*ITEM No.*	*PROCEDURE*	*EXAM TYPE*	*REMARKS*
NOZZLE TO VESSEL WELD	N4B Exam Number 625031 ASME XI EXAM	B 3.90	GE-ISI-435 Rev. 2 NUT-6 Rev. 2	0° WM R 45° R 60° R	NRI NRI NRI This is a one-sided examination. Nozzle configuration limits the accessible portion of the weld to 65.6% of the IWB-2500-7(b) volume.
NOZZLE INSIDE RADIUS SECTION	Exam Number N/A	B3.100	GE-ISI-411 Rev. 2	N/A N/A	
	N4B Exam Number 625031 REG. GUIDE 1.150 INNER 25% of T	B 3.90	GE-ISI-435 Rev. 2 NUT-6 Rev. 2	45° T 45° NT 60° T 60° NT	NRI NRI NRI NRI
	N4B Exam Number 625031 REG. GUIDE 1.150 OUTER 75% of T	B 3.90	GE-ISI-435 Rev. 2 NUT-6 Rev. 2	45° T 45° NT 60° T 60° NT	NRI NRI NRI NRI

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CATEGORY B-D

FULL PENETRATION WELDS OF NOZZLES IN VESSELS

WELD TYPE	*WELD ID*	*ITEM No.*	*PROCEDURE*	*EXAM TYPE*	*REMARKS*
NOZZLE TO VESSEL WELD	N4C Exam Number 625032 ASME XI EXAM	B 3.90	GE-ISI-435 Rev. 2	0° WM R 45° R 60° R	NRI NRI NRI This is a one-sided examination. Nozzle configuration limits the accessible portion of the weld to 64.3% of the IWB-2500-7(b) volume.
NOZZLE INSIDE RADIUS SECTION	Exam Number N/A	B3.100	GE-ISI-411 Rev. 2	N/A N/A	
	N4C Exam Number 625032 REG. GUIDE 1.150 INNER 25% of T	B 3.90	GE-ISI-435 Rev. 2	45° T 45° NT 60° T 60° NT	NRI NRI NRI NRI
	N4C Exam Number 625032 REG. GUIDE 1.150 OUTER 75% of T	B 3.90	GE-ISI-435 Rev. 2	45° T 45° NT 60° T 60° NT	NRI NRI NRI NRI

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CATEGORY B-D

FULL PENETRATION WELDS OF NOZZLES IN VESSELS

WELD TYPE	*WELD ID*	*ITEM No.*	*PROCEDURE*	*EXAM TYPE*	*REMARKS*
NOZZLE TO VESSEL WELD	N4D Exam Number 625033 ASME XI EXAM	B 3.90	GE-ISI-435 Rev. 2 NUT-6 Rev. 2	0° WM R 45° R 60° R	NRI NRI NRI This is a one-sided examination. Nozzle configuration limits the accessible portion of the weld to 63.0% of the IWB-2500-7(b) volume.
NOZZLE INSIDE RADIUS SECTION	Exam Number N/A	B3.100	GE-ISI-411 Rev. 2	N/A N/A	
	N4D Exam Number 625033 REG. GUIDE 1.150 INNER 25% of T	B 3.90	GE-ISI-435 Rev. 2 NUT-6 Rev. 2	45° T 45° NT 60° T 60° NT	NRI NRI NRI NRI
	N4D Exam Number 625033 REG. GUIDE 1.150 OUTER 75% of T	B 3.90	GE-ISI-435 Rev. 2 NUT-6 Rev. 2	45° T 45° NT 60° T 60° NT	NRI NRI NRI NRI

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CATEGORY B-D

FULL PENETRATION WELDS OF NOZZLES IN VESSELS

WELD TYPE	*WELD ID*	*ITEM No.*	*PROCEDURE*	*EXAM TYPE*	*REMARKS*
NOZZLE TO VESSEL WELD	N4E Exam Number 625034 ASME XI EXAM	B 3.90	GE-ISI-435 Rev. 2	0° WM R 45° R 60° R	NRI NRI NRI This is a one-sided examination. Nozzle configuration limits the accessible portion of the weld to 65.6% of the IWB-2500-7(b) volume.
NOZZLE INSIDE RADIUS SECTION	Exam Number N/A	B3.100	GE-ISI-411 Rev. 2	N/A N/A	
	N4E Exam Number 625034 REG. GUIDE 1.150 INNER 25% of T	B 3.90	GE-ISI-435 Rev. 2	45° T 45° NT 60° T 60° NT	NRI 2 Spot indications, acceptable. NRI 4 Spot indications, acceptable.
	N4E Exam Number 625034 REG. GUIDE 1.150 OUTER 75% of T	B 3.90	GE-ISI-435 Rev. 2	45° T 45° NT 60° T 60° NT	NRI NRI NRI NRI

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CATEGORY B-D

FULL PENETRATION WELDS OF NOZZLES IN VESSELS

WELD TYPE	*WELD ID*	*ITEM No.*	*PROCEDURE*	*EXAM TYPE*	*REMARKS*
NOZZLE TO VESSEL WELD	N4F Exam Number 625035 ASME XI EXAM	B 3.90	GE-ISI-435 Rev. 2	0° WM R 45° R 60° R	NRI NRI NRI This is a one-sided examination. Nozzle configuration limits the accessible portion of the weld to 65.6% of the IWB-2500-7(b) volume.
NOZZLE INSIDE RADIUS SECTION	Exam Number N/A	B3.100	GE-ISI-411 Rev. 2	N/A N/A	
	N4F Exam Number 625035 REG. GUIDE 1.150 INNER 25% of T	B 3.90	GE-ISI-435 Rev. 2	45° T 45° NT 60° T 60° NT	NRI NRI NRI NRI
	N4F Exam Number 625035 REG. GUIDE 1.150 OUTER 75% of T	B 3.90	GE-ISI-435 Rev. 2	45° T 45° NT 60° T 60° NT	NRI NRI NRI NRI

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SUSQUEHANNA STEAM ELECTRIC STATION

UNIT 1 RPV INSERVICE EXAMINATION

EIGHTH REFUELING AND INSPECTION OUTAGE

REPORT OF EXAMINATION RESULTS

EXAMINATION CATEGORY B-G-2

CATEGORY B-G-2

PRESSURE RETAINING BOLTING, 2 IN. AND LESS IN DIAMETER

COMPONENT TYPE	*COMP. ID*	*ITEM No.*	*PROCEDURE*	*EXAM TYPE*	*REMARKS*
CRD HOUSING BOLTS, STUDS, AND NUTS	CRD 10-31 EXAM No. 555005	B 7.80	NVT-1 Rev. 1	VT-1	ACCEPTABLE REPLACED WITH NEW DESIGN BOLTS
CRD HOUSING BOLTS, STUDS, AND NUTS	CRD 10-43 EXAM No. 555006	B 7.80	NVT-1 Rev. 1	VT-1	REJECTABLE REPLACED WITH NEW DESIGN BOLTS
CRD HOUSING BOLTS, STUDS, AND NUTS	CRD 14-27 EXAM No. 555007	B 7.80	NVT-1 Rev. 1	VT-1	REJECTABLE REPLACED WITH NEW DESIGN BOLTS
CRD HOUSING BOLTS, STUDS, AND NUTS	CRD 14-31 EXAM No. 555008	B 7.80	NVT-1 Rev. 1	VT-1	REJECTABLE REPLACED WITH NEW DESIGN BOLTS
CRD HOUSING BOLTS, STUDS, AND NUTS	CRD 14-35 EXAM No. 555009	B 7.80	NVT-1 Rev. 1	VT-1	REJECTABLE REPLACED WITH NEW DESIGN BOLTS
CRD HOUSING BOLTS, STUDS, AND NUTS	CRD 18-43 EXAM No. 555010	B 7.80	NVT-1 Rev. 1	VT-1	ACCEPTABLE REPLACED WITH NEW DESIGN BOLTS
CRD HOUSING BOLTS, STUDS, AND NUTS	CRD 18-59 EXAM No. 555011	B 7.80	NVT-1 Rev. 1	VT-1	ACCEPTABLE REPLACED WITH NEW DESIGN BOLTS
CRD HOUSING BOLTS, STUDS, AND NUTS	CRD 26-27 EXAM No. 555012	B 7.80	NVT-1 Rev. 1	VT-1	ACCEPTABLE REPLACED WITH NEW DESIGN BOLTS
CRD HOUSING BOLTS, STUDS, AND NUTS	CRD 30-03 EXAM No. 555013	B 7.80	NVT-1 Rev. 1	VT-1	ACCEPTABLE REPLACED WITH NEW DESIGN BOLTS
CRD HOUSING BOLTS, STUDS, AND NUTS	CRD 30-43 EXAM No. 555014	B 7.80	NVT-1 Rev. 1	VT-1	ACCEPTABLE REPLACED WITH NEW DESIGN BOLTS

NRI = NO RECORDABLE INDICATIONS

CATEGORY B-G-2

PRESSURE RETAINING BOLTING, 2 IN. AND LESS IN DIAMETER

COMPONENT TYPE	*COMP. ID*	*ITEM No.*	*PROCEDURE*	*EXAM TYPE*	*REMARKS*
CRD HOUSING BOLTS, STUDS, AND NUTS	CRD 34-59 EXAM No. 555015	B 7.80	NVT-1 Rev. 1	VT-1	REJECTABLE REPLACED WITH NEW DESIGN BOLTS
CRD HOUSING BOLTS, STUDS, AND NUTS	CRD 38-15 EXAM No. 555016	B 7.80	NVT-1 Rev. 1	VT-1	REJECTABLE REPLACED WITH NEW DESIGN BOLTS
CRD HOUSING BOLTS, STUDS, AND NUTS	CRD 38-59 EXAM No. 555017	B 7.80	NVT-1 Rev. 1	VT-1	REJECTABLE REPLACED WITH NEW DESIGN BOLTS
CRD HOUSING BOLTS, STUDS, AND NUTS	CRD 42-11 EXAM No. 555018	B 7.80	NVT-1 Rev. 1	VT-1	REJECTABLE REPLACED WITH NEW DESIGN BOLTS
CRD HOUSING BOLTS, STUDS, AND NUTS	CRD 46-07 EXAM No. 555019	B 7.80	NVT-1 Rev. 1	VT-1	ACCEPTABLE REPLACED WITH NEW DESIGN BOLTS
CRD HOUSING BOLTS, STUDS, AND NUTS	CRD 46-19 EXAM No. 555020	B 7.80	NVT-1 Rev. 1	VT-1	ACCEPTABLE REPLACED WITH NEW DESIGN BOLTS
CRD HOUSING BOLTS, STUDS, AND NUTS	CRD 50-19 EXAM No. 555021	B 7.80	NVT-1 Rev. 1	VT-1	ACCEPTABLE REPLACED WITH NEW DESIGN BOLTS
CRD HOUSING BOLTS, STUDS, AND NUTS	CRD 50-47 EXAM No. 555022	B 7.80	NVT-1 Rev. 1	VT-1	ACCEPTABLE REPLACED WITH NEW DESIGN BOLTS
CRD HOUSING BOLTS, STUDS, AND NUTS	CRD 54-15 EXAM No. 555023	B 7.80	NVT-1 Rev. 1	VT-1	REJECTABLE REPLACED WITH NEW DESIGN BOLTS
CRD HOUSING BOLTS, STUDS. AND NUTS	CRD 54-19 EXAM No. 555024	B 7.80	NVT-1 Rev. 1	VT-1	REJECTABLE REPLACED WITH NEW DESIGN BOLTS

SUSQUEHANNA STEAM ELECTRIC STATION

UNIT 1 RPV INSERVICE EXAMINATION

EIGHTH REFUELING AND INSPECTION OUTAGE

REPORT OF EXAMINATION RESULTS

EXAMINATION CATEGORY B-J

CATEGORY B-J

PRESSURE RETAINING WELDS IN PIPING

WELD TYPE	*WELD ID*	*ITEM No.*	*PROCEDURE*	*EXAM TYPE*	*REMARKS*
CIRCUMFERENTIAL WELD NOZZLE TO SAFE END	N4A EXAM No. 625052	B9.11	NMTWD-1 Rev. 8	SUR	NRI
CIRCUMFERENTIAL WELD NOZZLE TO SAFE END	N4B EXAM No. 625053	B9.11	NMTWD-1 Rev. 8	SUR	NRI
CIRCUMFERENTIAL WELD NOZZLE TO SAFE END	N4C EXAM No. 625054	B9.11	NMTWD-1 Rev. 8	SUR	NRI
CIRCUMFERENTIAL WELD NOZZLE TO SAFE END	N4D EXAM No. 625055	B9.11	NMTWD-1 Rev. 8	SUR	NRI
CIRCUMFERENTIAL WELD NOZZLE TO SAFE END	N4E EXAM No. 625056	B9.11	NMTWD-1 Rev. 8	SUR	NRI

NRI = NO RECORDABLE INDICATIONS

CATEGORY B-J

PRESSURE RETAINING WELDS IN PIPING

WELD TYPE	*WELD ID*	*ITEM No.*	*PROCEDURE*	*EXAM TYPE*	*REMARKS*
CIRCUMFERENTIAL WELD NOZZLE TO SAFE END	N4F EXAM No. 625057	B9.11	NMTWD-1 Rev. 8	SUR	NRI

NRI = NO RECORDABLE INDICATIONS

SUSQUEHANNA STEAM ELECTRIC STATION

UNIT 1 RPV INSERVICE EXAMINATION

EIGHTH REFUELING AND INSPECTION OUTAGE

REPORT OF EXAMINATION RESULTS

EXAMINATION CATEGORY AUG-2

CATEGORY AUG-2

AUGMENTED EXAMINATIONS PER NUREG-0313

WELD TYPE	*WELD ID*	*ITEM No.*	*PROCEDURE*	*EXAM TYPE*	*REMARKS*
NOZZLE TO SAFE END	N1B-NOZ-SE EXAM No. 625036	AUG-2	GE-ISI-440 Rev. 1	VOL Post MSIP	NRI Non relevant indications, such as ID Geometry, Interface, Root, etc., were recorded.
NOZZLE TO SAFE END	N2B-NOZ-SE EXAM No. 625037	AUG-2	GE-ISI-440 Rev. 1	VOL Post MSIP	NRI Non relevant indications, such as ID Geometry, Interface, Root, etc., were recorded.
NOZZLE TO SAFE END	N2C-NOZ-SE EXAM No. 625038	AUG-2	GE-ISI-440 Rev. 1	VOL Post MSIP	NRI Non relevant indications, such as ID Geometry, Interface, Root, etc., were recorded.
NOZZLE TO SAFE END	N2D-NOZ-SE EXAM No. 625039	AUG-2	GE-ISI-440 Rev. 1	VOL Post MSIP	NRI Non relevant indications, such as ID Geometry, Interface, Root, etc., were recorded.
NOZZLE TO SAFE END	N2E-NOZ-SE EXAM No. 625040	AUG-2	GE-ISI-440 Rev. 1	VOL Post MSIP	NRI Non relevant indications, such as ID Geometry, Interface, Root, etc., were recorded.
NOZZLE TO SAFE END	N2G-NOZ-SE EXAM No. 625041	AUG-2	GE-ISI-440 Rev. 1	VOL Post MSIP	NRI Non relevant indications, such as ID Geometry, Interface, Root, etc., were recorded.

NRI = NO RELEVANT INDICATIONS

CATEGORY AUG-2

AUGMENTED EXAMINATIONS PER NUREG-0313

WELD TYPE	*WELD ID*	*ITEM No.*	*PROCEDURE*	*EXAM TYPE*	*REMARKS*
NOZZLE TO SAFE END	N2H-NOZ-SE EXAM No. 625042	AUG-2	GE-ISI-440 Rev. 1	VOL Post MSIP	NRI Non relevant indications, such as ID Geometry, Interface, Root, etc., were recorded.
NOZZLE TO SAFE END	N2J-NOZ-SE EXAM No. 625043	AUG-2	GE-ISI-440 Rev. 1	VOL Post MSIP	NRI Non relevant indications, such as ID Geometry, Interface, Root, etc., were recorded.
NOZZLE TO SAFE END	N5A-NOZ-SE EXAM No. 625044	AUG-2	GE-ISI-440 Rev. 1 NUT-1 Rev. 4	VOL Post MSIP	NRI Non relevant indications, such as ID Geometry, Interface, Root, etc., were recorded. Exam limited to 93.8%
SAFE END EXT TO SAFE END	N5A-SE EXT-SE EXAM No. 625045	AUG-2	GE-ISI-440 Rev. 1 NUT-1 Rev.4	VOL Post MSIP	NRI Non relevant indications, such as ID Geometry, Interface, Root, etc., were recorded.
NOZZLE TO SAFE END	N5B-NOZ-SE EXAM No. 625046	AUG-2	NUT-1 Rev. 4	VOL Post MSIP	NRI Non relevant indications, such as ID Geometry, Interface, Root, etc., were recorded.
SAFE END EXT TO SAFE END	N5B-SE EXT-SE EXAM No. 625047	AUG-2	NUT-1 Rev. 4	VOL Post MSIP	NRI Non relevant indications, such as ID Geometry, Interface, Root, etc., were recorded.

NRI = NO RELEVANT INDICATIONS

CATEGORY AUG-2

AUGMENTED EXAMINATIONS PER NUREG-0313

WELD TYPE	*WELD ID*	*ITEM No.*	*PROCEDURE*	*EXAM TYPE*	*REMARKS*
NOZZLE TO SAFE END	N8A-NOZ-SE EXAM No. 625048	AUG-2	NUT-1 Rev. 4	VOL Post MSIP	NRI Non relevant indications, such as ID Geometry, Interface, Root, etc., were recorded.
SAFE END TO PENT SEAL	N8A-SE-PENT SEAL EXAM No. 625049	AUG-2	NUT-1 Rev. 4	VOL Post MSIP	NRI Non relevant indications, such as ID Geometry, Interface, Root, etc., were recorded.
NOZZLE TO SAFE END	N8B-NOZ-SE EXAM No. 625050	AUG-2	NUT-1 Rev. 4	VOL Post MSIP	NRI Non relevant indications, such as ID Geometry, Interface, Root, etc., were recorded.
SAFE END TO PENT SEAL	N8B-SE - PENT SEAL EXAM No. 625051	AUG-2	NUT-1 Rev.4	VOL Post MSIP	NRI Non relevant indications, such as ID Geometry, Interface, Root, etc., were recorded.

NRI = NO RELEVANT INDICATIONS

SUSQUEHANNA STEAM ELECTRIC STATION

UNIT 1 RPV INSERVICE EXAMINATION

EIGHTH REFUELING AND INSPECTION OUTAGE

REPORT OF EXAMINATION RESULTS

EXAMINATION CATEGORY AUG-3

CATEGORY AUG-3

AUGMENTED EXAMINATIONS PER NUREG-0619

WELD TYPE	*WELD ID*	*ITEM No.*	*PROCEDURE*	*EXAM TYPE*	*REMARKS*
NOZZLE INSIDE RADIUS	N4A-IR EXAM No. 625001	AUG-3	GE-ISI-411 Rev. 2 GE-ISI-444 Rev. 1	VOL	NRI Examination was limited to 96.2% due to the proximity of Nozzle N11A.
NOZZLE TO SAFE END	N4A-NOZ-SE EXAM No. 625002	AUG-3	GE-ISI-438 Rev. 1 NUT-2 Rev. 3	VOL	NRI Non relevant indications, such as ID Geometry, Interface, Root, etc., were recorded. Examined 100%
NOZZLE BORE	N4A-BORE EXAM No. 625003	AUG-3	GE-ISI-411 Rev. 2 GE-ISI-444 Rev. 1	VOL	NRI Examined 100%
NOZZLE INSIDE RADIUS	N4B-IR EXAM No. 624004	AUG-3	GE-ISI-411 Rev. 1	VOL	NRI
NOZZLE TO SAFE END	N4B-NOZ-SE EXAM No. 624005	AUG-3	GE-ISI-439 Rev. 0	VOL	NRI Non relevant indications, such as ID Geometry, Interface, Root, etc., were recorded.
NOZZLE BORE	N4B-BORE EXAM No. 624006	AUG-3	GE-ISI-411 Rev. 1 GE-ISI-444 Rev. 0	VOL	NRI Examination was limited to 98.0% due to thermocouple pads.

NRI = NO RECORDABLE INDICATIONS

CATEGORY AUG-3

AUGMENTED EXAMINATIONS PER NUREG-0619

WELD TYPE	*WELD ID*	*ITEM No.*	*PROCEDURE*	*EXAM TYPE*	*REMARKS*
NOZZLE INSIDE RADIUS	N4C-IR EXAM No. 625007	AUG-3	GE-ISI-411 Rev. 2 GE-ISI-444 Rev. 1	VOL	NRI Examined 100%
NOZZLE TO SAFE END	N4C-NOZ-SE EXAM No. 625008	AUG-3	GE-ISI-438 Rev. 1 NUT-2 Rev. 3	VOL	NRI Non relevant indications, such as ID Geometry, Interface, Root, etc., were recorded. Examined 100%
NOZZLE BORE	N4C-BORE EXAM No. 625009	AUG-3	GE-ISI-411 Rev. 2 GE-ISI-444 Rev. 1	VOL	NRI Examined 100%
NOZZLE INSIDE RADIUS	N4D-IR EXAM No. 625010	AUG-3	GE-ISI-411 Rev. 2 GE-ISI-444 Rev. 1	VOL	NRI Examination was limited to 96.2% due to the proximity of Nozzle N11B.
NOZZLE TO SAFE END	N4D-NOZ-SE EXAM No. 625011	AUG-3	GE-ISI-438 Rev. 1 NUT-2 Rev. 3	VOL	NRI Non relevant indications, such as ID Geometry, Interface, Root, etc., were recorded. Examined 100%
NOZZLE BORE	N4D-BORE EXAM No. 625012	AUG-3	GE-ISI-411 Rev. 1 GE-ISI-444 Rev. 0	VOL	NRI Examination was limited to 96.7% due to thermocouple pads.

NRI = NO RECORDABLE INDICATIONS

CATEGORY AUG-3

AUGMENTED EXAMINATIONS PER NUREG-0619

WELD TYPE	*WELD ID*	*ITEM No.*	*PROCEDURE*	*EXAM TYPE*	*REMARKS*
NOZZLE INSIDE RADIUS	N4E-IR EXAM No. 625013	AUG-3	GE-ISI-411 Rev. 2 GE-ISI-444 Rev. 1	VOL	NRI Examined 100%
NOZZLE TO SAFE END	N4E-NOZ-SE EXAM No. 625014	AUG-3	GE-ISI-438 Rev. 1 NUT-2 Rev. 3	VOL	NRI Non relevant indications, such as ID Geometry, Interface. Root, etc., were recorded. Examined 100%
NOZZLE BORE	N4E-BORE EXAM No. 625015	AUG-3	GE-ISI-411 Rev. 2 GE-ISI-444 Rev. 1	VOL	NRI Examined 100%
NOZZLE INSIDE RADIUS	N4F-IR EXAM No. 625016	AUG-3	GE-ISI-411 Rev. 2 GE-ISI-444 Rev. 1	VOL	NRI Examined 100%
NOZZLE TO SAFE END	N4F-NOZ-SE EXAM No. 625017	AUG-3	GE-ISI-438 Rev. 1 NUT-2 Rev. 3	VOL	NRI Non relevant indications, such as ID Geometry, Interface. Root, etc., were recorded. Examined 100%
NOZZLE BORE	N4F-BORE EXAM No. 625018	AUG-3	GE-ISI-411 Rev. 1 GE-ISI-444 Rev. 0	VOL	NRI Examined 100%

NRI = NO RECORDABLE INDICATIONS

SUSQUEHANNA STEAM ELECTRIC STATION

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SECTION IV

SUMMARY REPORTS

SUSQUEHANNA STEAM ELECTRIC STATION

UNIT 1 RPV INSERVICE EXAMINATION

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REPORT OF EXAMINATION RESULTS

SUMMARY REPORT #1

Summary Report Number 1:

USNRC REGULATORY GUIDE 1.150 REPORT OF EXAMINATION RESULTS FOR THE SUSQUEHANNA UNIT 1, EIGHTH INSERVICE EXAMINATION.

USNRC Regulatory Guide 1.150, Revision 1, Alternate Method requires that ultrasonic examinations performed on reactor pressure vessels be documented in a manner that will allow meaningful comparison of data gathered during successive examinations. This report documents the steps taken by General Electric to assure that the data gathered during the Susquehanna Unit 1 Inservice Ultrasonic Examination meets the intent of Reg. Guide 1.150.

Ultrasonic Examinations during the Susquehanna Unit 1, Eighth Refueling Outage, were performed using both automated and manual examination equipment. This report addresses each section of Reg. Guide 1.150 as it affects both types of examination equipment. Data gathered supporting the conclusions presented in this report is on file at the site.

The results of each examination are reported along with the required evaluations. The examination data is on file at the site.

Procedure GE-ADM-1006, defines the Reg. Guide 1.150 compliance activities performed by General Electric during the Susquehanna Unit 1 Inservice Examination. This report contains the documentation required by the procedure. The examination was performed in accordance with the requirements of ASME Section XI 1989 Edition, without Addenda; supplemented by GE-ADM-1006.

INSPECTION SYSTEM PERFORMANCE CHECKS

The Pre-Exam Performance Checks specified in Paragraph 1.1 of the Reg. Guide Alternate Method were not performed during the Susquehanna Unit 1 Inservice Examination. General Electric's Quality Assurance requirements do not allow performance checks performed up to six months in advance of an examination to constitute Quality Assurance records for the project. These checks, if performed, could not become a part of the records package.

The Field Performance Checks specified in Paragraph 1.2 of the Reg. Guide Alternate Method are performed for both automated and manual ultrasonic examination equipment. The required checks are performed as follows:

Field Performance Checks

RF Wave Form and Frequency Amplitude Information

The required RF wave form and frequency amplitude information, for the search units used during the automated examinations, are generated via an FFT transform through the examination system. The system then generates a Data Sheet. The frequency amplitude, band width and associated data appear on the print out. The data displays a digitized RF wave form and all information necessary for re-creating the equipment set-up. A specialized block, designed for obtaining the required data, was used. The reflectors are documented to allow comparisons at a later date. Each transducer was analyzed. RF wave form and frequency analysis information, for each search unit used during the automated exams, is on file at the site. These files contain information gathered before the exams were begun and after they were completed.

The required RF wave form and frequency amplitude information, for the search units used during manual examinations, are also gathered through the FFT transform function of the automated examination system.

The system generated Data Sheet is used. The frequency amplitude, band width and associated data appear on the print out. The data displays a digitized RF wave form and all information necessary for re-creating the equipment set-up. A specialized block, designed for obtaining the required data, was used. The reflectors are documented to allow comparisons at a later date. Each transducer is analyzed for a specific use, and with a specific wedge (shoe) where applicable. RF wave form and frequency analysis information for each search unit used during the manual exams in on file at the site.

Screen Height Linearity Data and Amplitude Control Linearity Data

Linearity data for both automated and manual examination systems is recorded as required by the applicable examination procedure. The Procedures governing these ultrasonic examinations require documentation of these checks on a calibration data sheet. These calibration data sheets are not an attachment in this report. Linearity data is on file at the site. These files contain all required records.

Angle Beam Profile Characterization

Beam profile information is obtained for each automated examination package and each manual examination transducer/wedge combination used during ultrasonic examination of RPV welds. The data for automated examination packages is gathered using an automated calibration scanning mechanism. The data for manual examination search units is gathered using manual techniques. The beam profile data is not an attachment to this report. Beam profile data is on file at the site. These files contain information gathered both before the exams were begun and after they were completed

CALIBRATION

Calibrations for the Automated Examination System

Automated examination system calibrations were performed in accordance with procedure GE-ISI-435 Revision 2 for GERIS 2000 Examination of RPV Assembly Welds. The Initial Calibration of the examination system was performed dynamically using a mechanized calibration scanner that operates in a manner that duplicated the essential variables of the mechanized examination scanner. This is immediately rechecked in a static mode to correlate the calibration simulator. The Initial Recheck (static mode) is then used for subsequent calibrations. The scanner speed set by the operator for the examination scanner was, per procedure, limited to the scanning speed set for the calibration scanner. The direction(s) of scanning during calibration trace (forward) and retrace (backward) are verified during the system calibration. If, for example, a valid calibration is obtained for both trace and retrace modes, examination data may be gathered in both the forward and backward directions. If a valid calibration for only one direction was obtained then examination data was gathered only in the direction of the valid calibration. Records for the automated system calibrations are on file at the site.

Calibration for the Manual Examination System(s)

Calibrations for manual examination systems are performed in accordance with procedure NUT-6, Revision 2, for all Vessel Assembly Welds. This manual examination procedure uses static calibration methods. The signals are maximized during both calibration and examination. Calibrations are verified at scanning speed. Records for manual system calibrations are on file at the site.

Calibration Nonconformances

There were two nonconformances issued against Geris 2000 calibrations. Both involved exceeding the 12 hour calibration period. In both cases, the data was found to be acceptable. The nonconformance reports appear at the end of this report.

Calibration Confirmations

Calibration confirmations, for both automated and manual examination systems, are performed in accordance with the applicable examination procedure. In all cases, the procedural requirements equal or exceed those specified in the ASME Code. There were no electronic simulators or off-site system calibrations used during the Susquehanna Unit 1 Inservice Examination.

Calibration Blocks

The calibration blocks used during the Susquehanna Unit 1 Inservice Examination are furnished by the Owner. These blocks were fabricated in accordance with the requirements of Appendix 1 of ASME Section XI, 1974 Edition, with addenda through Winter 1975. No alternate calibration blocks or new conventional blocks were used during this Inservice Examination. There was an acoustic difference noted between two of the vessel calibration blocks. See report Number 3 for details.

EXAMINATION

Examination Scope and Extent

The scope and extent of the examinations are as specified in the Susquehanna Unit 1 Inservice Inspection Plan. Minor interferences occurred during the examination, due to the RPV and insulation designs. The interferences were analyzed and their effect on the examination documented.

The examinations were performed in accordance with written procedures. The procedures contain requirements for electronic gating and transducer scanning overlap. The procedural requirements are in accordance with Reg. Guide 1.150 requirements.

Internal Surface Examination Capabilities

Internal surface flaw detection capability, for both automated and manual exam systems, is demonstrated by detection of the ASME 2% ID notch during calibration. No alternate reflectors were utilized for this examination. The referenced 1" of material measured perpendicular to the clad/base metal interface was examined. See the Recording and Sizing Section for details.

Scanning Weld-Metal Interface

The ultrasonic examination techniques developed by General Electric for Inservice Inspections at Susquehanna Unit 1, utilize the ASME Section V, Article 4 specified beaming angles of 0°, 45°, and 60°. These beam angles are not based on Susquehanna specific weld preparation details. The ability of these beaming angles to detect unfavorably oriented planar flaws was demonstrated. See the Recording and Sizing Section for details.

The Estimate of Sizing Tolerances

The sizing error band, for both automated and manual examination equipment, is estimated below:

Automated Examination Equipment Error Band = + 7.6% t

ID Notches were consistently oversized. These data are used during indication analysis.

Manual Examination Equipment Error Band = + 8.8%t

ID notch data was consistently oversized by the combination of beaming angles.

The Estimate of Unexamined Volumes

The estimate of unexamined and not effectively examined volumes, for both automated and manual examinations, are shown below:

1) Volume Affected by near field effects.

Automated Examination	.500" beneath the scanning surface
Manual Examination	.500" beneath the scanning surface

2) Volume Shadowed by Laminar defects.

Automated Examination	None determinable, no indications with total loss of back reflection
Manual Examination	None determinable, no indications with total loss of back reflection

3) Volumes unexamined due to vessel configuration.

Vessel configuration resulted in some unexamined volume for both automated and manual examinations. The "Examination Coverage Report" details the unexamined volumes and their effect on each examination.

4) Unexamined volumes near the cladded ID surface

Automated Examination	None determinable, artificial flaws at interface are detectable.
Manual Examination	None determinable, artificial flaws at interface are detectable.

5) Volumes affected by electronic gating.

Automated Examination	None determinable, entire thickness was within the system gates.
Manual Examination	No electronic gating was used.

Sketches of Automatic Examination Equipment for use by reviewers, are included with the Coverage Report. No sketches of manual examination equipment are included since the equipment consisted of standard catalogue items needing no such sketches to allow review.

No alternate volumetric examinations were used during the Inservice Examination of Susquehanna Unit 1 Reactor Pressure Vessel Assembly Welds.

Nonconformance Report

Project SUSQUEHANNA UNIT I | Project No. 1FRMD | NCR No. SSES I - 001

Reference Documents: GE-ISI-435 Rev.2

Description of Nonconformance: (State Cause) NCR Code 043 Cause Code C02

Due to mechanical failure the 12 hour calibration period was exceeded by 59 minutes.

Hugo S. Winterhalter

Initiated By Hugo S. Winterhalter Date 4/04/95 QC Supervisor Mark Sodeman Date 4/20/95

10CFR21 Review: ( ) Is (✓) Is Not Reportable Signature: R. [illegible] 4/15/95

Proposed Disposition and Technical Justification: (Attach Extra Sheets, Sketches, Etc. as Necessary)

Accept-As-Is ☒ Repair ☐ Rework ☐ Reject ☐ Other If Not Mat. Or Items ☐

The mechanical failure was repaired and the calibration was checked successfully. The elapsed time from cal in to cal out was 12:59.

Project Manager R. [illegible] Date 4/15/95 QC Supervisor Mark Sodeman Date 4/20/95

Final Disposition

(Accept-As-Is) & Repair Dispositions, Design Verification Is Provided Per:

Since the calibration was checked successfully, the data was determined to be good.

Client (If Required) [illegible] Date 4-17-95 *ANI Review [illegible] Date 4-18-95

Project Manager R. [illegible] Date 4/17/95 QC Supervisor Mark Sodeman Date 4/20/95

Preventative Action:

Attempt to limit mechanical failures

QC Approval Mark Sodeman Date 4/20/95

Disposition Completed And Nonconformance Report Closed QC Supervisor Mark Sodeman Date 4/20/95

Nonconformance Report

Project SUSQUEHANNA UNIT I | Project No. 1FRMD | NCR No. SSES I - 002

Reference Documents: GE-ISI-435 Rev.2

Description of Nonconformance: (State Cause) NCR Code 043 Cause Code C04

Due to delays in being granted access to enter nozzle windows the 12 hour calibration period was exceeded by 66 minutes.

Hugo S. Winterhalter

Initiated By Hugo S Winterhalter Date 4/09/95 QC Supervisor Mark Sodeman Date 4/20/95

10CFR21 Review: ( ) Is (✓) Is Not Reportable Signature: R. [illegible] 4/15/95

Proposed Disposition and Technical Justification: (Attach Extra Sheets, Sketches, Etc. as Necessary)

Accept-As-Is ☒ Repair ☐ Rework ☐ Reject ☐ Other If Not Mat. Or Items ☐

Access was obtained, the transducer package was retrieved and the calibration was checked successfully. The elapsed time from cal in to cal out was 13:06.

Project Manager R. [illegible] Date 4-15-95 QC Supervisor Mark Sodeman Date 4/20/95

Final Disposition

(Accept-As-Is) & Repair Dispositions, Design Verification Is Provided Per:

Since the calibration was checked successfully, the data was determined to be good and no rescans were necessary.

Client (If Required) [illegible] Date 4-17-95 *ANI Review [illegible] Date 4-18-95

Project Manager R. [illegible] Date 4/17/95 QC Supervisor Mark Sodeman Date 4/20/95

Preventative Action:

Improve Pre-Job Planning

QC Approval Mark Sodeman Date 4/20/95

Disposition Completed And Nonconformance Report Closed QC Supervisor Mark Sodeman Date 4/20/95

SUSQUEHANNA STEAM ELECTRIC STATION

UNIT 1 RPV INSERVICE EXAMINATION

EIGHTH REFUELING AND INSPECTION OUTAGE

REPORT OF EXAMINATION RESULTS

SUMMARY REPORT #2

Summary Report Number 2: REPORT OF EXAMINATION COVERAGE

This report details the extent of examination coverage for each item examined, during the Susquehanna Unit 1, Eighth Refueling and Inspection Outage. It identifies the areas where transducer access was limited due to RPV configuration, part geometry, insulation configuration, and/or configuration of the search unit. This report documents the interferences, provides a description of the measures taken to reduce their effect, and provides the percentage of the examination volume/area that was effectively examined.

The following pages list the items examined, the examination technique used, identification of any interference(s), estimates of the volumes examined in accordance with ASME Section XI requirements, and estimates of the volumes not examined in accordance with Section XI requirements. The details of any interference are documented in the Examination Data for the Item.

Susquehanna RF & IO 8

GERIS 2000 OD

Examination Coverage

Report

Rev 0

Prepared by: Mark Torok Mark Torok Date: 4-21-95

Reviewed by: Wade F. Miller Wade F. Miller Date: 4/27/95

Description of the Nozzle Examination Techniques of GERIS 2000 OD

GE Nuclear Energy
175 Curtner Avenue
San Jose, California 95125

January, 1995

I. INTRODUCTION

This technical description is provided to describe the capability of General Electric's automated RPV inspection system (GERIS 2000) to meet the requirements of Regulatory Guide 1.150 paragraphs 7.b and 7.c and 10 CFR 50-55a(g).

Examination techniques described in this report are those used by General Electric when performing automatic ultrasonic inspections on ASME Code category B-D nozzle to vessel attachment welds. Scanning coverage documented in this report is for nozzle forging (flange type) to vessel seam welds. The ASME Boiler and Pressure Vessel Code referenced in this report is the 1980 Edition Winter 1981 Addenda.

No automated inspection system in use today is capable of effectively examining 100% of the ASME Code examination volume defined in Section XI - IWB 2500-7(b). This fact has been recognized in that the NRC Regulatory Guide 1.150 requires that volumes that are not examined be defined and documented in the examination report.

II. ASME CODE AND REGULATORY GUIDE 1.150 REQUIREMENTS

Section 50.55a, "Codes and Standards," of 10 CFR Part 50 requires that Class I components per American Society for Mechanical Engineers Boiler and Pressure Vessel Code (ASME B&PV Code) meet the requirements set forth in Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components," of the ASME Code.

Section XI IWB-2500-1 requires that nozzle-to-vessel welds be examined by volumetric inspection techniques. The area to be volumetrically examined for nozzle-to-vessel welds per Figure IWB-2500-7(b) is defined as the weld metal plus adjacent base material regions as shown in Fig. 1.

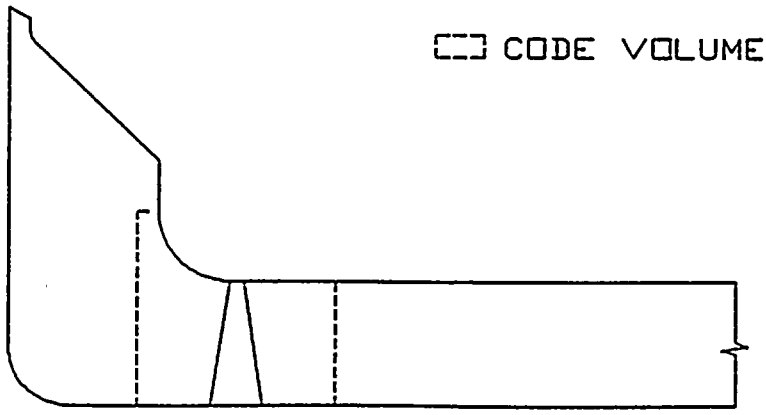

Fig 1 - Nozzle Weld Examination Volume

The area to be examined for nozzle-inner radius and bore regions per Figure IWB-2500-7(b) is defined as the inner 1/2 inch of the inner radius and the nozzle bore through to the vessel wall thickness as shown in Fig 2.

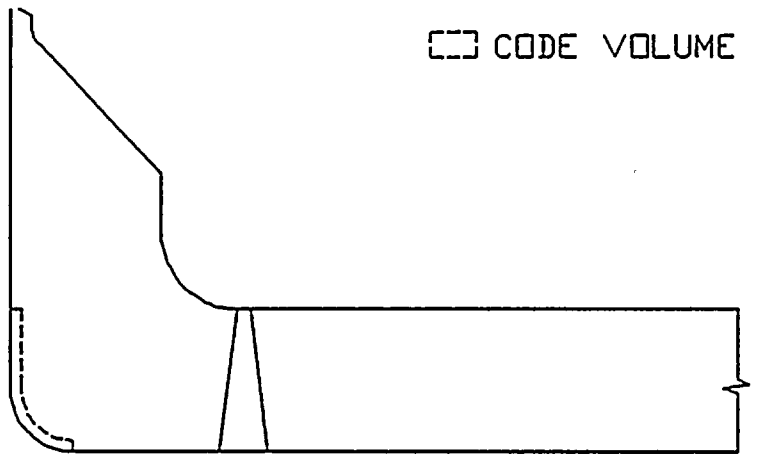

Fig 2 - Nozzle Inner Radius and Bore Examination Volume

Ultrasonic examinations are performed according to Article 4 "Ultrasonic Examination When Dimensioning of Indications is Required" of Section V. Scanning is performed by angle beam and straight beam techniques per paragraphs T-441.5 through T-441.7 wherever such scanning is feasible.

The United States Nuclear Regulatory Commission (NRC) has issued Regulatory Guide 1.150, "Ultrasonic Testing of Reactor Vessel Welds During Preservice and Inservice Examinations", to assure improved pressure vessel inspections. The recommendations of this guide are supplemental to the requirements of Section XI.

For volumes that are inaccessible to the transducer, or volumes shadowed by part geometry that have not been effectively examined, Regulatory Guide 1.150 paragraph 7.b requires that a best estimate of the affected volume be reported along with the ultrasonic examination results.

III. AUTOMATED NOZZLE SCANNER

Nozzle-to-Vessel Weld and Nozzle Inner Radius Scanner

The nozzle device, mounted on a channel track clamped around the nozzle OD cylindrical surface, provides the means of performing a remote ultrasonic examination of the nozzle welds (Fig 3). The nozzle device includes the nozzle tractor, scanner arm and transducer package.

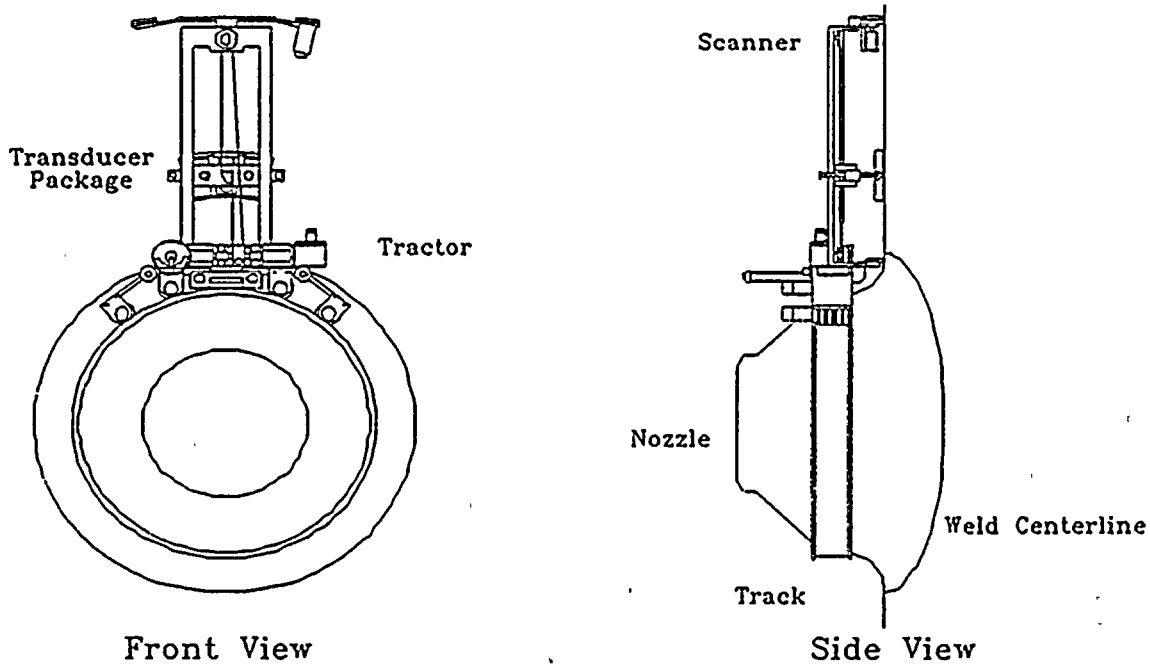

Fig 3 - Nozzle-to-Vessel Weld Scanner

The nozzle tractor consists of a main body with two motor driven magnetic wheels and two hinged end sections, each with one motor driven magnetic wheel assembly. A pendulum and resolver are mounted on the main body to give the angular position of the nozzle tractor. The reciprocating scanner arm is attached to the nozzle tractor and extends perpendicular to the nozzle track for scanning the nozzle to vessel welds and nozzle inner radius.

The scanner arm consists of a frame, two tandem mounted stepping motors, a worm gear driven resolver, and a ball screw driven plate which holds the ultrasonic transducer package. The scanner arm is held to the vessel wall with two spring loaded guide rods on the inboard end and two magnetic wheels mounted at the outboard end of the scanner arm.

The transducer package consists of a combination of various transducer wedges individually mounted in a frame. The wedges produce beam angles as required by Section V. To improve coupling and efficiency, a specially designed transducer package assembly is utilized which allows independent transducer suspension and couplant delivery.

Safe-End Mounted Scanner

The safe-end mounted scanner (Fig 4) attaches to a channel track clamped around the nozzle safe-end, and provides the means of performing a remote ultrasonic examination of the nozzle inner bore surface. The safe-end mounted scanner is designed for scanning the nozzle bore inner surfaces.

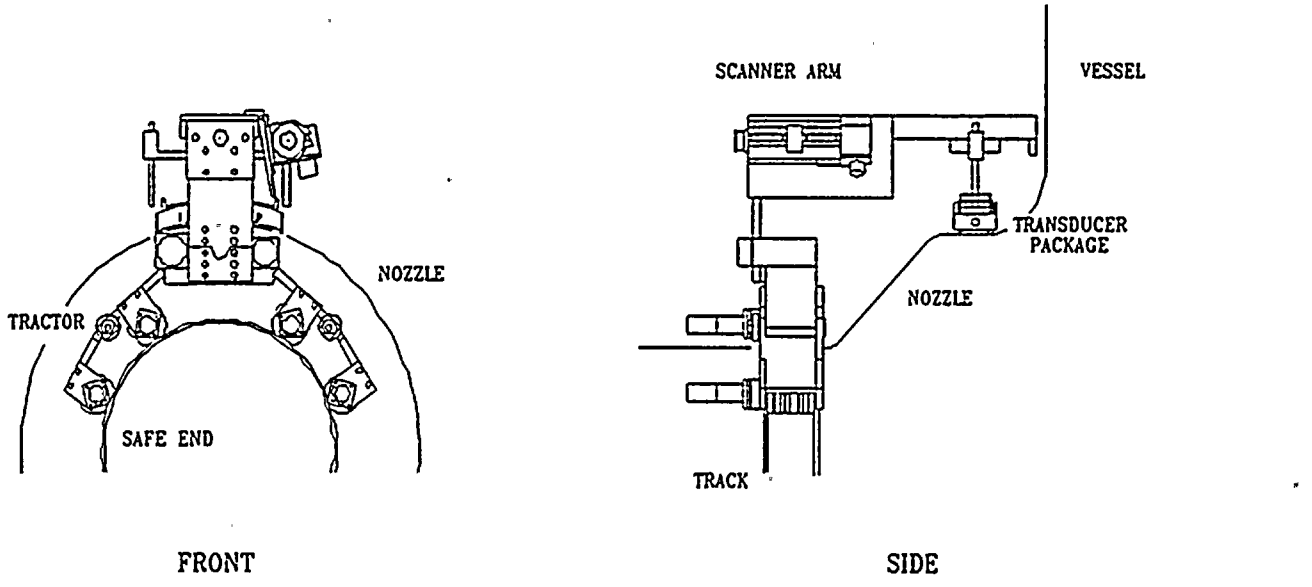

Fig 4 - Safe-End Mounted Scanner

The safe-end mounted tractor consists of a main body with two motor-driven magnetic wheels and two hinged-end sections, each with motor-driven magnetic wheel assemblies. A pendulum and resolver are mounted on the main body to give the angular position of the tractor. The reciprocating scanner arm is attached to the tractor and extends perpendicular to the safe-end track for scanning the nozzle-bore region.

IV. TECHNIQUES FOR NOZZLE-TO-VESSEL WELDS

The accessible examination volume of nozzle-to-vessel welds is examined by using three types of scanning packages as described below.

Transverse Scan for parallel oriented reflectors

The T-scan (sound beam transverse to the weld axis) transducer package consists of 45 and 60 degree angle beam and a 0 degree straight beam transducer as shown in Fig 5. The 45 and 60 degree angle beam transducers are angulated to produce sound beams that are perpendicular to weld centerline at the vessel inner surface.

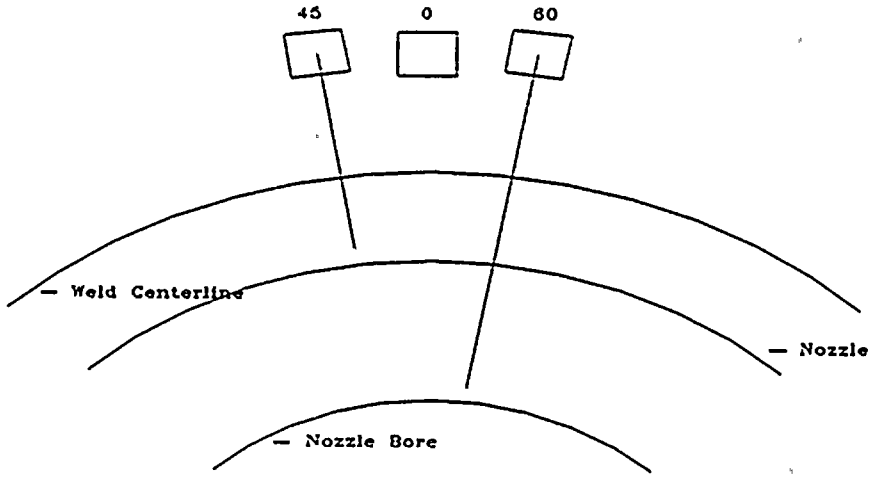

Fig 5 - T Scan Examination Package

The scan coverages for the T-scan examinations are shown in Fig 6. The examination begins with the T-scan package adjacent the nozzle OD blend radius which is located at Pos 1, the package is scanned radially outward so that the sound beam will pass through 1/2 T (vessel wall thickness) of vessel base metal material (right dashed line). The radial distance needed for the 45 degree transducer is the distance between Pos 2 and Pos 3 for the 60 degree transducer.

One complete revolution of the nozzle scanner, with the T-scan package will scan the accessible examination volume for parallel oriented reflectors using 45 and 60 degree angle beams.

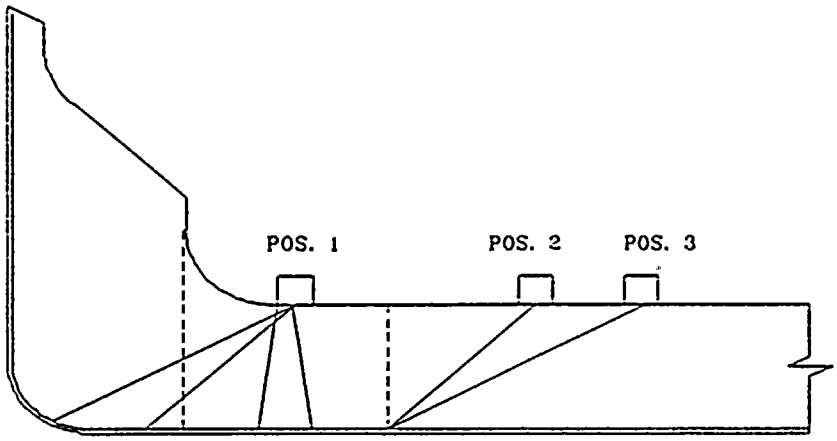

Fig 6 - T-scan Examination Coverage

Parallel Scan for transverse oriented reflectors

The P-scan (sound beam parallel to the weld axis) transducer packages (P1 and P2) consists of 45 and 60 degree angle beam transducers. The transducers are angulated to produce sound beams that are tangent to the weld centerline at the vessel inner surface.

The P1-scan consists of the 45 and 60 degree angle beam transducers pointed in the counter-clockwise direction as shown in Fig 7.

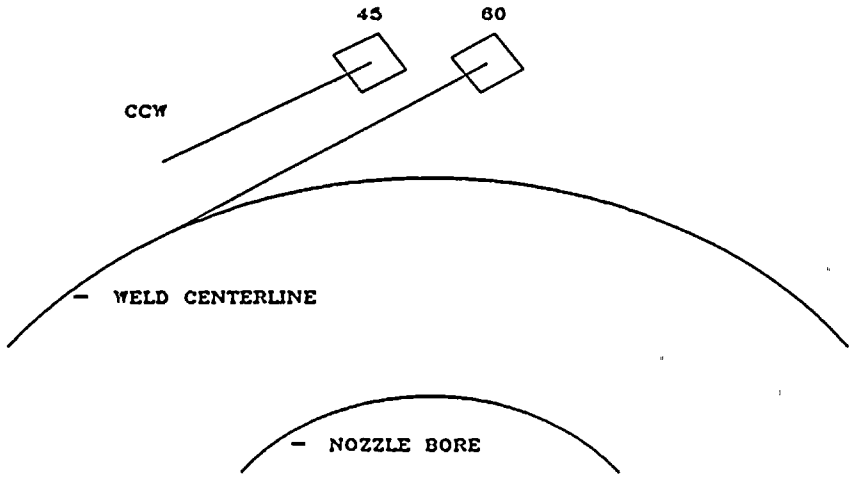

Fig 7 - P1 Scan Examination Package

For the P2 scan, the transducers are rotated to have the sound beams pointed in the clockwise direction as shown in . To compensate for the transducer offset distance from the center of the scanner axis, changes are made to the rotation angles. This compensation results in different rotation angle values for the clockwise and counter-clockwise directions.

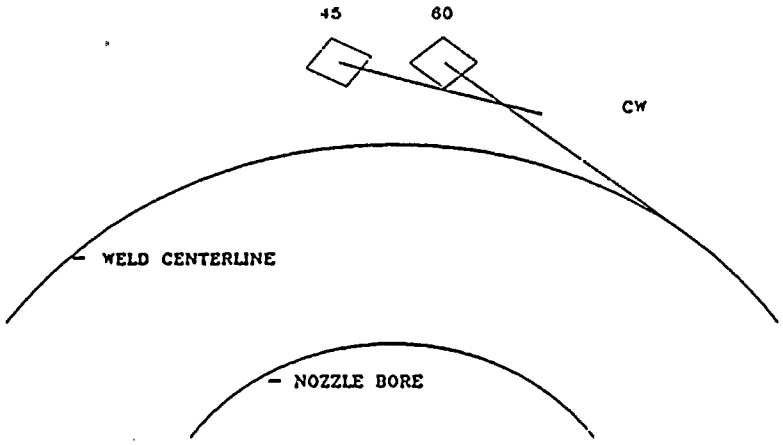

Fig 8 - P2 Scan Examination Package

Two complete revolutions of the nozzle scanner are made. One revolution with the P1 package and another revolution with the P2 package are performed to scan (from two directions) the accessible examination volume for transverse oriented reflectors.

The scan coverages for the P-scan examinations are shown in Fig 9. The examination begins for the P-scan (P1 and P2) package adjacent the nozzle OD blend radius located at Pos 1. The package is moved radially outward for a distance so the sound beams pass through 1/2 T of vessel base metal material (right dashed line). The radial distance for the 45 degree transducer is Pos 2, and Pos 3 for the 60 degree transducer.

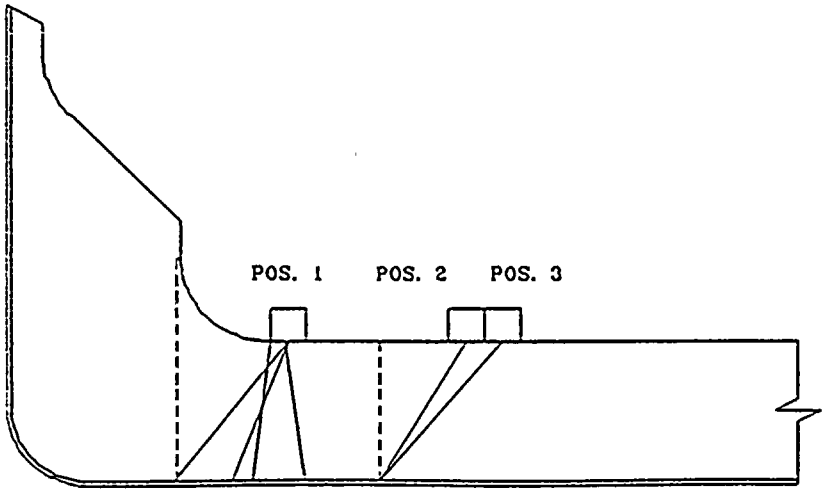

Fig 9 - P scan examination coverage

Weld and Base Metal Examinations

The L-wave scan (0 degree longitudinal) examination is performed with one 0 degree longitudinal beam transducer located in the T-scan package. This single transducer performs dual functions. The first function is the weld metal examination and the second is the base metal examination.

The scan coverages for the L-wave weld and base metal examinations are shown in Fig 10. The examination begins with the L-wave scan package adjacent the nozzle OD blend radius located at Pos 1. The package is moved radially outward so that the sound beam will pass through 1/2 T (vessel wall thickness) of vessel base metal material (right vertical dashed line). The radial distance needed for the 0 degree weld metal examination is Pos 2 and Pos. 3 for the 0 degree base metal exam. The base metal scan examines the volume of base metal material for laminations that would interfere with the angle beam examinations.

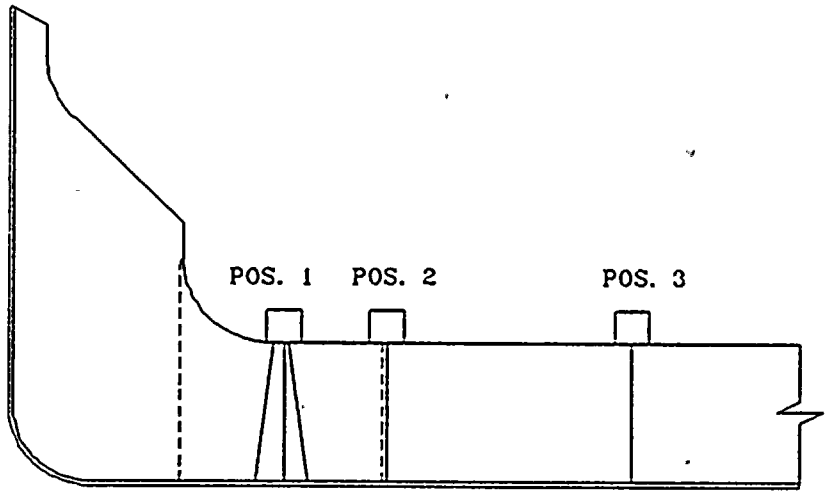

Fig 10 - L-wave Weld and Base Metal Coverage

One complete revolution of the nozzle scanner, with the T-scan package will scan the accessible examination volume for planar and laminar reflectors using a 0 degree straight beam.

V. EXAMINATION TECHNIQUES FOR NOZZLE-INNER RADIUS AND BORE.

The nozzle inner radius and bore are divided into five examination zones and are identified as Zones 1, 2A, 2B, 3, 4A, 4B and 5 as shows in Fig 11. Each zone is examined by a separate testing technique. Each examination technique has its own unique transducer array.

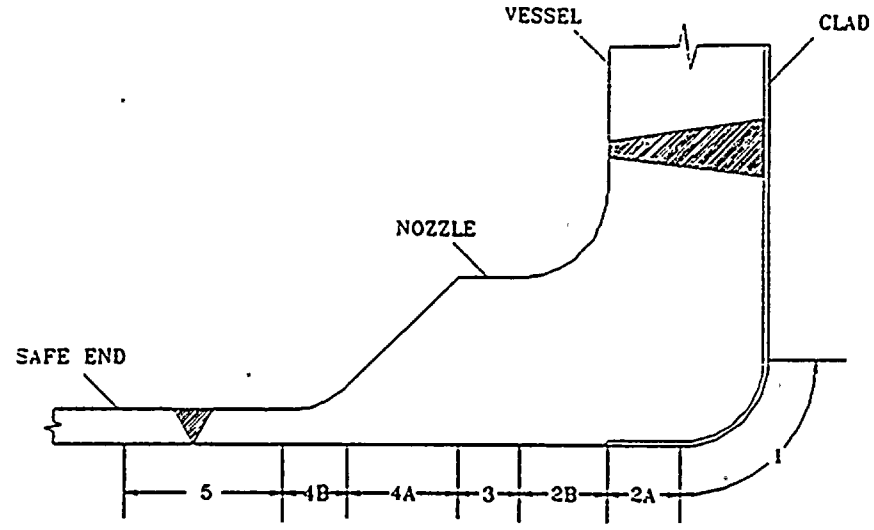

Fig 11 - Nozzle Inner Radius and Bore Examination Zones

To meet the ASME Section XI requirements, examinations are performed on Zones 1 and 2A. On Feedwater nozzles NUREG-0619 requires augmented examinations of Zones 1 through 5.

Zone 1 Examination

The nozzle inner radius (Zone 1) is normally examined from the vessel plate with a refracted shear wave that passes through the nozzle-to-vessel weld as shown in Fig 12. The Zone 1 scan consists of two transducers, one directed in the clockwise direction and the other in the counter-clockwise. This scan is performed with the nozzle scanner as shown previously in Fig 3.

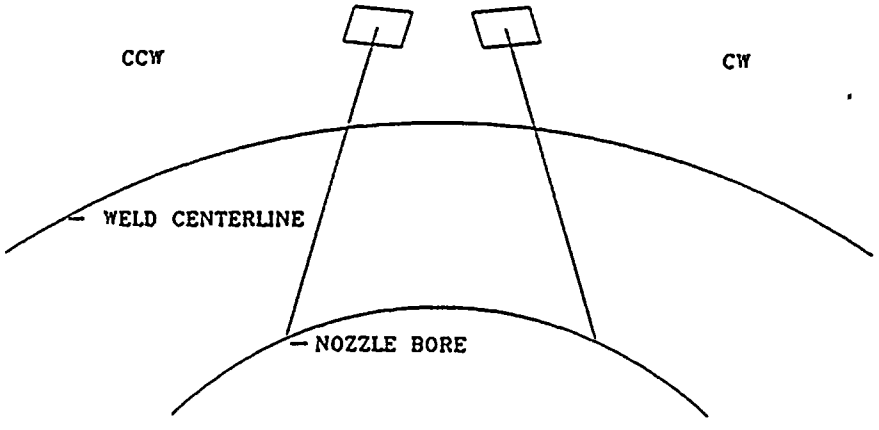

Fig 12 - Zone 1 Examination Package

The sound beam is directed to intersect the inner-radius at a favorable angle (normal to an inner-radius flaw) for flaw detection. Sound beam and rotation angles are dependent on the individual nozzle geometry.

The scan coverage for the Zone 1 examination is shown in Fig 13. The examination begins with the Zone 1 package adjacent to the nozzle OD blend radius which is located at Pos 1; the package is scanned radially outward so that the sound beam will pass through inner-radius volume (right dashed line). The radial distance needed for the Zone 1 transducer is the distance Pos. 1 and Pos 2.

One complete revolution of the nozzle scanner, with the Zone 1 package will scan the accessible examination volume of the Zone 1 region for axially-oriented flaws.

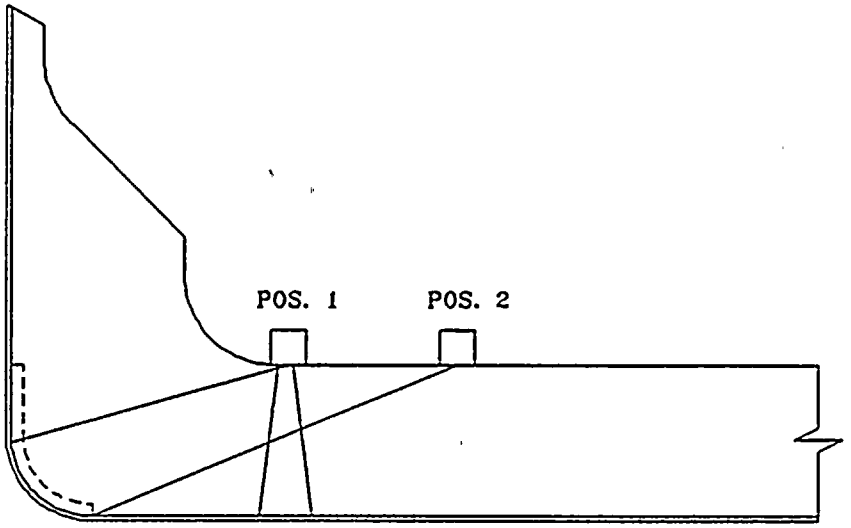

Fig 13 - Zone 1 Examination Coverage

In addition, scanning the inner-radius from the nozzle OD blend radius may be preferred on certain nozzle configurations. As is the case for the Zone 1 examination from the vessel plate, the sound beam and rotation angles are dependant on nozzle design.

Zone 2A Examination

The Zone 2A area of the nozzle bore is examined with shear waves from the surface where the nozzle OD blend radius merges with the cylindrical surface of the RPV as shown in Fig 14. This scan is performed with the nozzle scanner as previously shown in Fig 3.

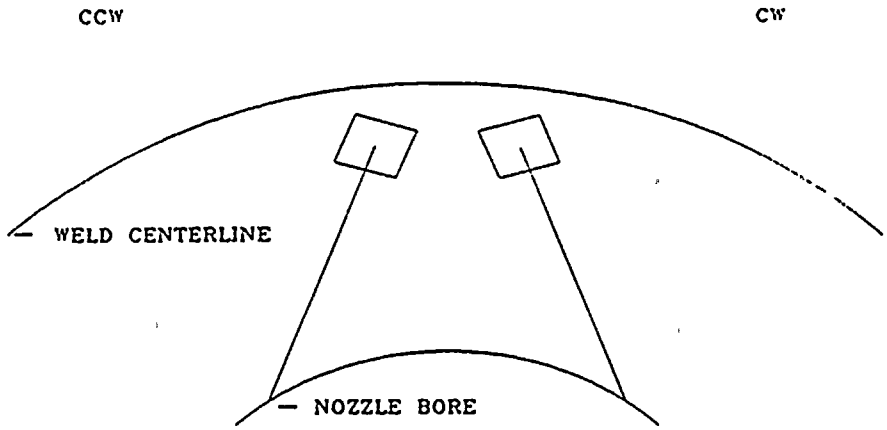

Fig 14 - Zone 2A Examination Package

The sound beam is designed to intersect the nozzle bore at a favorable angle (normal to a nozzle-bore flaw) for flaw detection. Sound beam and rotation angles are dependent on the individual nozzle geometry.

The scan coverage for the Zone 2A examination is shown in Fig 15. The examination begins with the Zone 2 transducer adjacent the nozzle OD blend radius located at Pos 1. The package is moved radially inward so that the sound beam will pass into the nozzle bore equivalent to a distance of vessel wall thickness (upper horizontally dashed line). The radial distance needed for the Zone 2 examination is the distance between Pos 1 and Pos 2.

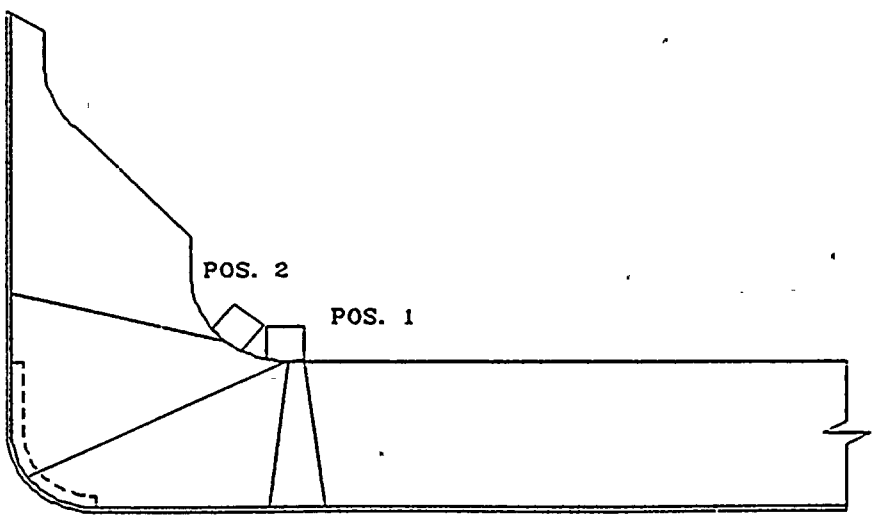

Fig 15 - Zone 2A Examination Coverage

One complete revolution of the nozzle scanner, with the Zone 2A package will scan the accessible examination volume of the Zone 2A region for axially-oriented flaws. Coverage typically includes parts of the Zone 1 and 2B regions.

Zone 2B Examination

The Zone 2B area of the nozzle bore is examined with shear waves from the nozzle OD cylinderical surface as shown in Fig 16. The Zone 2B scan consists of two transducers, one directed in the clockwise direction and the other in the counter-clockwise. This scan is performed with the safe end scanner as shown previously in Fig 4.

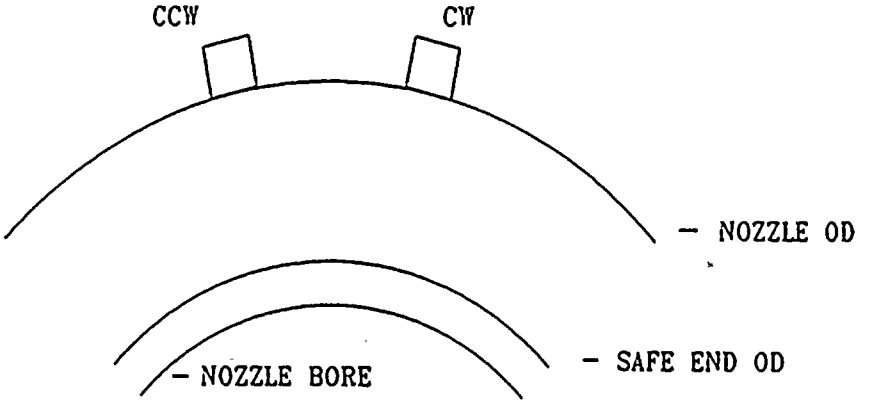

Fig 16 - Zone 2B Examination Package

The sound beam is designed to intersect the nozzle bore in the Zone 2B region of the nozzle bore. Sound beam and rotation angles are dependent on the individual nozzle geometry.

The scan coverage of the Zone 2B examination is shown in Fig 17. .The examination begins with the Zone 2B package adjacent to the nozzle OD blend radius which is located at Pos. 1. The package is scanned axially toward the end of the nozzle OD cylinderical surface which is located at Pos. 2.

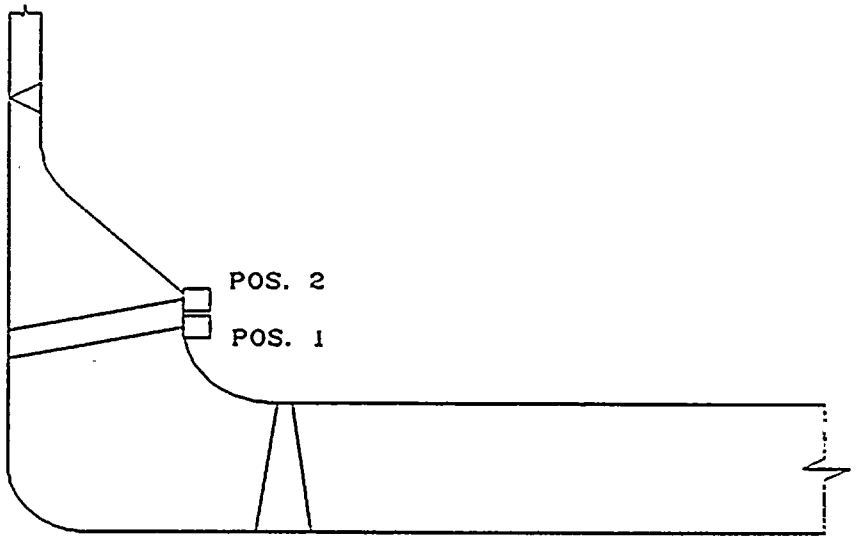

Fig 17- Zone 2B Examination Coverage

One complete revolution of the safe-end scanner, with the Zone 2B package will scan the accessible examination volume of the Zone 2B region (area not examined with the Zone 2A examination) for axially-oriented flaws.

Zone 3 Examination

The Zone 3 area of the nozzle bore is examined with shear waves from the nozzle OD cylinderical surface as shown in Fig 18. The Zone 3 scan consists of two transducers, one directed in the clockwise direction and the other in the counter-clockwise. This scan is performed with the safe end scanner as shown previously in Fig 4.

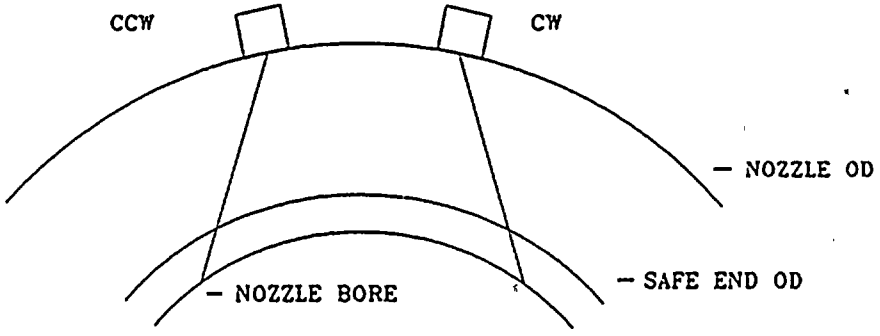

Fig 18 - Zone 3 Examination Package

The sound beam is designed to intersect the nozzle bore in the Zone 3 region of the nozzle bore. Sound beam and rotation angles are dependent on the individual nozzle geometry.

The scan coverage of the Zone 3 examination is shown in Fig 19. The examination begins with the Zone 3 package adjacent to the nozzle OD blend radius which is located at Pos. 1. The package is scanned axially toward the end of the nozzle OD cylinderical surface which is located at Pos. 2.

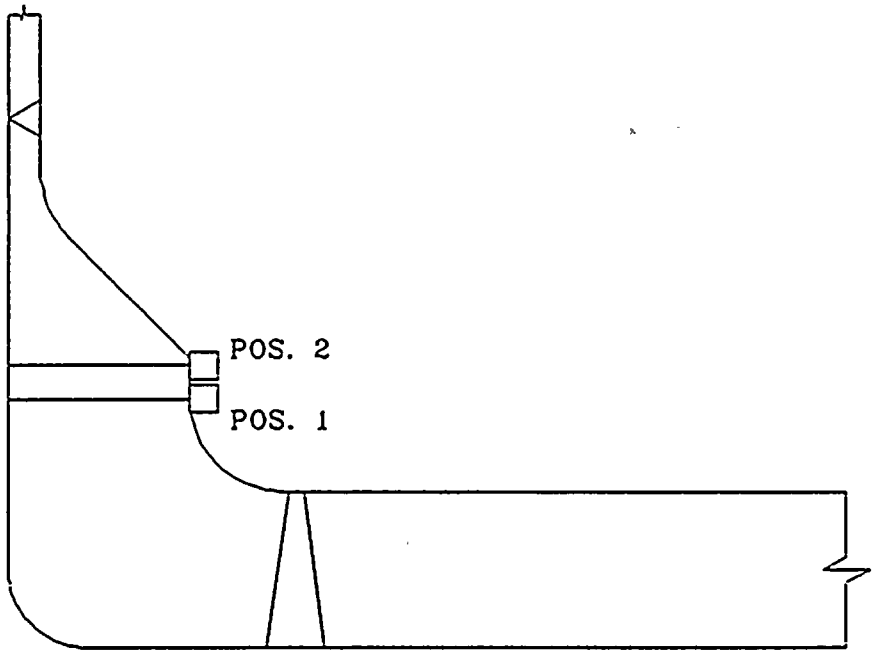

Fig 19 - Zone 3 Examination Coverage

One complete revolution of the safe-end scanner, with the Zone 3 package will scan the the Zone 3 region for axially-oriented flaws.

Zone 4A Examination

The Zone 4A area of the nozzle bore is examined with shear waves from the nozzle OD cylinderical surface as shown in Fig 20. The Zone 4A scan consists of two transducers, one directed in the clockwise direction and the other in the counter-clockwise. This scan is performed with the safe end scanner as shown previously in Fig 4.

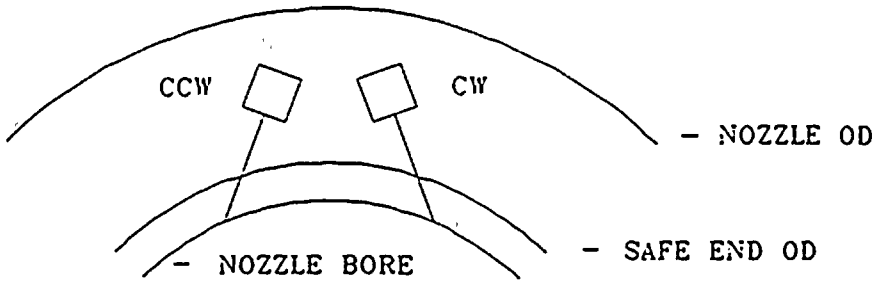

Fig 20 - Zones 4A and 4B Examination Package

The sound beam is designed to intersect the nozzle bore in the Zone 4A region of the nozzle bore. Sound beam and rotation angles are dependent on the individual nozzle geometry.

The scan coverage of the Zone 4A examination is shown in Fig 21. The examination begins with the Zone 4A package adjacent to the nozzle OD cylinderical which is located at Pos. 1. The package is scanned axially to the nozzle-to-safe end blend radius surface which is located at Pos. 2.

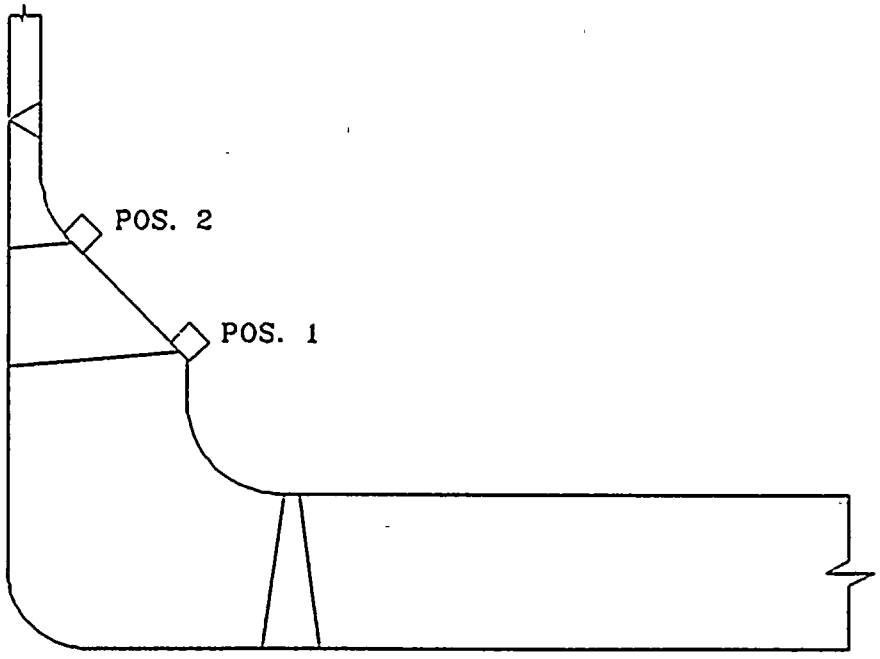

Fig 21 - Zone 4A Examination Coverage

One complete revolution of the safe-end scanner, with the Zone 4A package will scan the the Zone 4A region for axially-oriented flaws.

Zone 4B Examination

The Zone 4B area of the nozzle bore is examined with shear waves from the nozzle-to-safe-end blend radius surface with the transducer similar to that as shown in . The Zone 4B scan consists of two transducers, one directed in the clockwise direction and the other in the counter-clockwise. When geometry permits (large blend radius), this scan is performed with the safe end scanner as shown previously in Fig 4, else it is performed manually.

The scan coverage of the Zone 4B examination is shown in Fig 23. The examination begins with the Zone 4B package adjacent to the nozzle taper which is located at Pos. 1. The package is scanned axially to the nozzle-to-safe end OD surface which is located at Pos. 2.

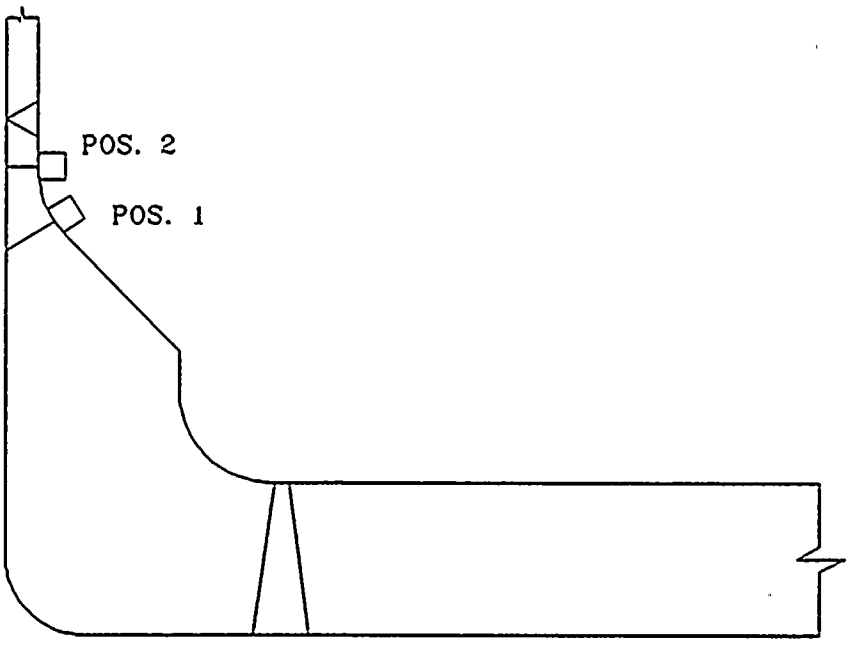

Fig 23 - Zone 4B Examination Coverage

One complete revolution of the safe-end scanner, with the Zone 4B package will scan the the Zone 4B region for axially-oriented flaws.

Zone 5 Examination

The Zone 5 area of the nozzle bore is examined with shear waves or RL (depending on safe end material) from the nozzle-to-safe end OD surfaces as shown in Fig 24. The Zone 5 scan consists of two transducers, one directed in the clockwise direction and the other in the counter-clockwise. This scan is performed with the safe end scanner as shown previously in Fig 4. An alternate method is to perform this scan with the SMART 2000 Ultrasonic system.

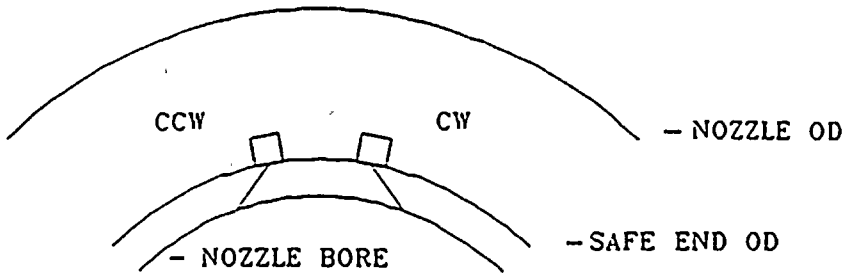

Fig 24 - Zone 5 Examination Package

The scan coverage of the Zone 5 examination is shown in Fig 25. The examination begins with the Zone 5 package adjacent to the nozzle-to-safe end blend radius which is located at Pos. 1. The package is scanned axially to the position on nozzle-to-safe end OD surface which is directly above the point on the thermal sleeve where leakage could occur and is located at Pos. 2.

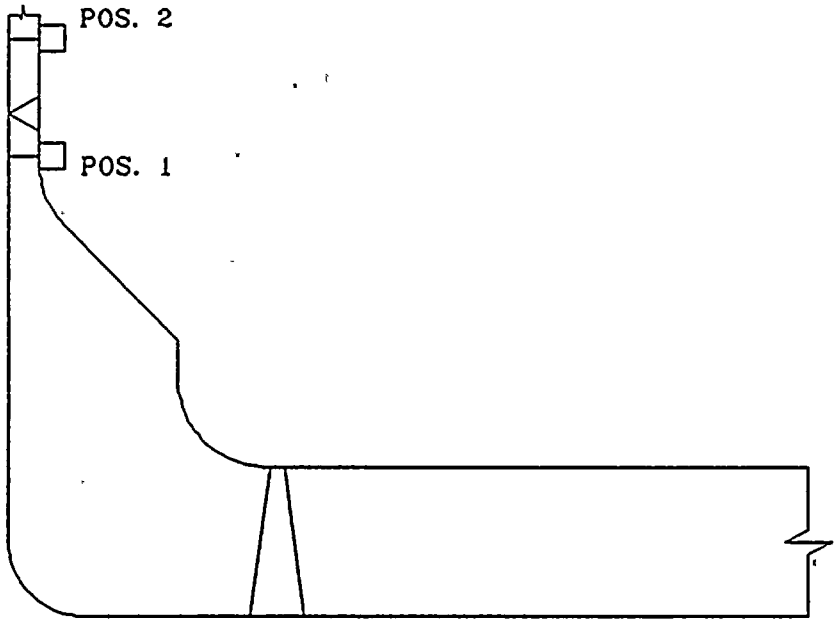

Fig 25 - Zone 5 Examination Coverage

One complete revolution of the safe-end scanner, with the Zone 5 package will scan the the Zone 5 region for axially-oriented flaws.

IV. SCANNING COVERAGE

The flanged nozzle design when examined from the outside vessel surface does not allow a full volummetric inspection of the volume specified in figure IWB-2500-7(b). The primary limitation is due to the fact that the volume can only be examined from one side and in one direction and is recognized by the ASME Code. Another limitation in scanning the N2H and N2J Recirculation Inlet nozzles was an adjacent N9 Jet Pump Instrument nozzle. The use of a shorter scanning arm was needed to scan this area. The automated transducer (60° T scan) could not scan back enough to cover the entire 1/2 T of vessel base material. With this limitation, 87% of the nozzle was scanned with 100% of accessible coverage, while the remaining 13% of the nozzle was scanned with 98% of accessible coverage obtained.

Scan Limitations and Volume of Coverage.

Table 1 summarizes the examined volume from the coverage plots contained in the examination data packages. Areas not examined due to near field effects reflected in the following table (this area has been determined to be the outer 0.5" of examination volume).

SCAN TYPE	CODE VOLUME (SQ. IN)	VOLUME EXAMINED (SQ. IN)	% OF TOTAL CODE VOLUME EXAMINED	% OF ACCESSIBLE VOLUME EXAMINED
0° WM	65.2	26.4	40	100
45° T	65.2	44.5	68	100
60° T	65.2	48.4	74	100
60° T*	65.2	47.2	72	98
45° P	65.2	33.9	52	100
60° P	65.2	41.8	64	100
INNER RADIUS	4.0	4.0	100	100

* - SCANNING VOLUME RESTRICTED BY N9

Table 1 - Cross-sectional examination volume.

Supplemental manual examinations (nozzles)

Supplemental manual examinations to cover the area missed by the automated scanner (60° T scan) between the N2 and N9 nozzles would increase the cross-sectional coverage by 1.2 sq. in. Due to the minimal amount of Code Volume not covered with the 60° T scan (2% of accessible), and the fact that 45° T, 45° P and 60° P scans were performed in this restricted region, no supplemental examination was performed.

APPENDIX A

Code Examination Coverage Summary

Summary	Component	Exam	Coverage %	Composite Code Coverage and Restrictions
625019	AA BHEAD-SC1	0° WM 45°T-scan 60°T-scan 45°P-scan 60°P-scan	100 99.3 96.25 100 100	99% GERIS 2000 Exam restricted at N1A, B and N8A, B. Manual Exam unrestricted. Supplemental Manual exams performed at N1A, B and N8A, B.
625023	AF 0° - 120°	0° WM 45°T-scan 60°T-scan 45°P-scan	71 95.4 97.2 71	100% Manual examination coverage of bottom side limited due to flange configuration. Credit taken for ligament exam brings total credit to100%. (Scheduled Examination from 0° to 120°)
625020	BA SC1 LONG	0° WM 45°T-scan 60°T-scan 45°P-scan 60°P-scan	100 82.5 82.5 82.5 82.5	86% GERIS 2000 Exam restricted at N2K. No Supplemental manual exams performed this outage. Upon com-pletion of supplemental exams during RF & IO 9 100% coverage will be achieved.
625021	BB SC1 LONG	0° WM 45°T-scan 60°T-scan 45°P-scan 60°P-scan	100 100 100 100 100	100% GERIS 2000 Exam restricted a N2C. Supplemental Manual exams were performed in this area.
625022	BC SC1 LONG	0° WM 45°T-scan 60°T-scan 45°P-scan 60°P-scan	100 100 100 100 100	100% GERIS 2000 Exam restricted a nozzles N1B and N2F. Supplemental Manual exams performed in these areas.
625027	N1A NOZ-SC1	0° WM 45°T-scan 60°T-scan 45°P-scan 60°P-scan	48.2 80 87 52 41.2	61.7% GERIS 2000 scanning unrestricted.

Summary	Component	Exam	Coverage %	Composite Code Coverage and Restrictions
625024	N1A I.R. NOZ-IR	Zone 1 Zone 2a	100 100	100% GERIS 2000 scanning unrestricted.
625028	N2A NOZ-SC1	0° WM 45°T-scan 60°T-scan 45°P-scan 60°P-scan	48.6 79.3 86.2 53.3 60.6	65.6% GERIS 2000 scanning unrestricted.
625025	N2A IR NOZ-IR	Zone 1 Zone 2a	100 100	100% GERIS 2000 Exam unrestricted.
625029	N2F NOZ-SC1	0° WM 45°T-scan 60°T-scan 45°P-scan 60°P-scan	47.6 79.3 86.2 53.3 60.6	65.4% GERIS 2000 Scanning unrestricted.
625026	N2F IR NOZ-IR	Zone 1 Zone 2a	100 100	100% GERIS 2000 Exam unrestricted.
625030	N4A N0Z-SC3	0° WM 45°T-scan 60°T-scan 45°P-scan 60°P-scan	48.6 73.8 77 52.6 58.7	62% GERIS 2000 Exam restricted at N11A . Supplemental Manual exams performed in this area, with a L=0 to L=+4.5
625001	N4A IR NOZ-SC3	Zone 1 Zone 2a	92.3 100	96.2% GERIS 2000 Exam restricted at N11A. Supplemental Manual exams performed in the areas with a D=0 to D=+4.5.
625003	N4A-BORE FW NOZZLE BORE	Zone 2b Zone 3 Zone 4a Zone 4b	100 100 100 100	100%GERIS 2000 Exam unrestricted.

Summary	Component	Exam	Coverage %	Composite Code Coverage and Restrictions
625031	N4B NOZ-SC3	0° WM 45°T-scan 60°T-scan 45°P-scan 60°P-scan	48.4 79.3 86.2 53.3 60.6	65.6% GERIS 2000 Scanning unrestricted.
625004	N4B IR NOZ-IR	Zone 1 Zone 2a	100 100	100% GERIS 2000 Exam unrestricted.
625006	N4B-BORE FW NOZZLE BORE	Zone 2b Zone 3 Zone 4a Zone 4b	100 100 100 100	100% GERIS 2000 Exam unrestricted.
625032	N4C NOZ-SC3	0° WM 45°T-scan 60°T-scan 45°P-scan 60°P-scan	48.6 79.3 80 53.2 60.6	64.3% GERIS 2000 T-scan exam at N9A (Azimuth 65° to 95°) limited to a radial distance of 12 inches.
625007	N4C I.R. NOZ-IR	Zone 1 Zone 2a	100 100	100% GERIS 2000 Exam unrestricted.
625009	N4C-BORE FW NOZZLE BORE	Zone 2b Zone 3 Zone 4a Zone 4b	100 100 100 100	100 % GERIS 2000 Exam unrestricted.
625033	N4D NOZ-SC3	0° WM 45°T-scan 60°T-scan 45°P-scan 60°P-scan	52.6 74 76.8 52.6 58.7	63% GERIS 2000 Exam restricted at N11B. Supplemental Manual exams performed in this area, with a L=0 to L=+4.5
625010	N4D IR NOZ-IR	Zone 1 Zone 2a	92.3 100	96.2% GERIS 2000 Exam restricted at N11B. Supplemental Manual exams performed in this area with a D=0 to D=+4.5.

Summary	Component	Exam	Coverage %	Composite Code Coverage and Restrictions
625012	N4D-BORE	Zone 2b	100	96.7 % GERIS 2000 Scanning unrestricted.
	FW	Zone 3	96	
	NOZZLE	Zone 4a	90.8	
	BORE	Zone 4b	100	
625034	N4E	0° WM	48.4	GERIS 2000 Scanning unrestricted
	NOZ-SC3	45°T-scan	79.3	
		60°T-scan	86.2	
		45°P-scan	53.3	
		60°P-scan	60.6	
625013	N4E IR	Zone 1	100	100 % GERIS 2000 Exam unrestricted
	NOZ-IR	Zone 2a	100	
625015	N4E-BORE	Zone 2b	100	100 % GERIS 2000 Exam unrestricted
		Zone 3	100	
		Zone 4a	100	
		Zone 4b	100	
625035	N4F	0° WM	48.4	65.6% GERIS 2000 Scanning unrestricted.
	NOZ-SC3	45°T-scan	79.3	
		60°T-scan	86.2	
		45°P-scan	53.3	
		60°P-scan	60.6	
625016	N4F IR	Zone 1	100	100 % GERIS 2000 Exam unrestricted.
	NOZ-IR	Zone 2a	100	
625018	N4F-BORE	Zone 2b	100	100 % GERIS 2000 Exam unrestricted.
		Zone 3	100	
		Zone 4a	100	
		Zone 4b	100	

SUSQUEHANNA STEAM ELECTRIC STATION

UNIT 1 RPV INSERVICE EXAMINATION

EIGHTH REFUELING AND INSPECTION OUTAGE

REPORT OF EXAMINATION RESULTS

SUMMARY REPORT #3

Summary Report Number 3: COMPARISON OF EXAMINATION RESULTS

The data gathered during the Susquehanna Unit 1 Eighth Refueling and Inspection Outage provides an assessment of RPV integrity. This is a requirement of both ASME Section XI and USNRC Regulatory Guide 1.150. The overall results regarding coverage and detected indications were compared to those from the previous examinations.

There were minor differences in coverage for these welds. This is attributable to equipment modifications during the elapsed time period between the examinations. The differences are not considered to be significant.

There were significant differences in the number of indications detected and in the amplitudes of the detected indications. These were attributable to differences in transducers, exam techniques, and an acoustic difference between Calibration Blocks 1 and 5. Appendix 1 of this report details the actions taken to determine the origin of the differences.

Each recordable indication was analyzed, along with any differences in examination coverage, etc., by a certified Level III individual. These analyses are a part of the data package generated for every item examined. The examination data and required analyses are on file at the site.

Based on the results of these examinations, there is no sign of "Abnormal Degradation" of the Reactor Pressure Vessel. There were no indications that required reporting to the USNRC per Reg. Guide 1.150.

Summary Report APPENDIX 1
Number 3

During the 1989 Inservice Examination of Weld BA, numerous indications were detected by the 0° weld metal scan. The analysis of these indications showed them to be caused by plate segregates. PP&L had the EPRI NDE Center confirm the analysis by Ultrasonic and Destructive Testing.

Since there was a commitment to re-inspect Weld BA periodically to confirm that these indications are not growing, Weld BA was inspected during R&IO 8. The previously recorded segregates were not present at the ASME Code sensitivity used to process data. This was a significant difference that was analyzed as follows:

1. The systems used for these examinations were different. The 1989 examination was performed with a GERIS system. The 1995 examination utilized a GERIS 2000 system. There are operational differences between these systems. The major difference is that the GERIS is an amplitude based system while the GERIS 2000 records all data down to the material noise level. GERIS data was analyzed based on the sensitivity obtained from the calibration standard. GERIS 2000 data was analyzed by processing with the DAC obtained during calibration being applied to all data. This is a significant difference that should have resulted in the recording of more small laminar indications, rather than less. Because the opposite happened, further analysis was performed.

2. Since the GERIS 2000 records all data , it was possible to search for the indications by reprocessing the data to extract and display lower amplitude peaks. It was determined that the indications were indeed present in the data, but at amplitudes averaging -16dB (>5X) below the 1989 levels. The GERIS 2000 system was checked and found to be operating properly. It was determined that the cause was not "System Related" so other factors were analyzed. A data review showed that Calibration Block 1 was used for the PSI and the 1995 exams, while Calibration Block 5 was used in 1989.

A comparison of acoustic properties between blocks 1 and 5 was performed. It was determined that the responses from all holes in Block 5 averaged ~14dB less than Block 1. When the 1995 data is reprocessed utilizing a reconstructed DAC with values similar to those obtained on Block 5, it compares well with the 1989 results.

The data differences were attributable to a difference between calibration blocks. There does not appear to be a ready explanation for the difference. Both of these blocks were fabricated from the same vessel knock-out eliminating the possibility of chemistry differences.

SUSQUEHANNA STEAM ELECTRIC STATION

UNIT 1 RPV INSERVICE EXAMINATION

EIGHTH REFUELING AND INSPECTION OUTAGE

REPORT OF EXAMINATION RESULTS

SUMMARY REPORT #4

Summary Report Number 4

EQUIPMENT VARIABLES THAT COULD AFFECT DIRECT COMPARISON OF RESULTS FROM PREVIOUS OR FUTURE EXAMINATIONS

The results of Nondestructive Examinations (NDE) are affected by variations in equipment operating characteristics. These can also affect comparisons of results between a series of examinations. Since there is little published data concerning these variables, GE performed an in house study to quantify them for the GERIS 2000 and Manual examination systems used on GE Contract work. This data forms the basis that enables performance of a comparison of results between examinations performed over a period of time; regardless of equipment type.

There are several broad categories of equipment performance parameters that affect direct comparison of different data sets. The effects of these factors has been estimated by GE, based on both laboratory work and field experience. The factors are:

1. System operational characteristics and the operational differences between equipment types.

2. The tolerances in equipment operational characteristics applied by equipment manufacturers.

3. Differences in transducer characteristics.

The following paragraphs contain a discussion of each item, a comparison of each item as it affects each system, and the effect of each on data correlation.

SYSTEM OPERATIONAL CHARACTERISTICS

The major difference in operational factors for the GERIS 2000 and Manual examination systems used at Susquehanna are due to system design. There are major differences between the data acquisition methods used in Manual systems and those employed by the GERIS 2000 system. These are discussed below:

GERIS 2000 Characteristics

The Dynamic Range of the system is 85 dB as a minimum.

System bandwidth is considered to be narrow. The system uses tuned Pulsers and Receivers that operate at optimum effeciency in the range of 1.0 Mhz through 5.0 Mhz.

Search units are selected to provide optimum performance with the system.

Manual System Characteristics

This RF/Video circuitry is meant to provide good performance over a broad range of search units.

The bandwidth is considered to be broad. It is meant to operate over a range from 1.0 Mhz - 10.0 Mhz with adequate performance.

Search units are selected based on adequate performance with the instrument being used. This performance may or may not be optimum.

As shown above these systems are designed to operate differently. Presently neither the ASME or the USNRC consider these differences when addressing data comparisons. With implementation of Appendix VIII of Section XI, it appears that more data about the effects of these items will become available. Presently, there is a lack of research data to quantify the effect of these parameters. Research performed at

Pacific Northwest Laboratory (NUREG/CR2264) indicates that tuned instruments offer more consistent results than broader band instruments.

MANUFACTURER'S TOLERANCES FOR INSTRUMENTS

The ultrasonic test instruments used in examination systems, are designed and built to operate within a finite set of tolerances specified by the individual manufacturer. These parameters and tolerances differ between manufacturers but are consistently applied to given models e.g. all Krautkramer USL-48's use the same tolerances but they may or may not apply to USK-7's. Each instrument manufacturer determines what constitutes acceptable performance tolerances for their products, based on the end use(s) they intend for them. It would be unreasonable to expect an instrument that has to provide acceptable performance over a wide range of uses to work as well on a specific use, as one designed for that specific use.

The GERIS 2000 used at Susquehanna, contains a single multiplexed UT system. The effect of manufacturing tolerances on examination data is, therefore, minimal. The UT data is produced using pulsers, receivers, logarithmic amplifier, and filtering specifically designed to provide optimum performance as a complete system. Components and parts are replaced with only those having the same characteristics. Each sub-system affects all data equally. Incipient failures are readily detectable and components are replaced before any effect on data can occur.

The manual systems used at Susquehanna contain instruments from several manufacturers. The effect of tolerances is present in the data and should be accounted for in data comparisons.

Experience has shown that different instruments, each operating within the tolerances specified by the manufacturer, can produce widely varying responses from the same reflector. At one operating plant, an indication that was present one year disappeared then reappeared during two subsequent examinations. The cause was found to be the instruments used, even though each was operating as designed by the manufacturer.

Testing performed by GE shows a spread of $\pm$ 5.5dB between instruments produced by a single manufacturer. The test data was generated using the same cable, transducer, wedges, and reflector. The instruments were the only variable. While a single manufacturer's instruments were used in this test, it is reasonable to assume that data gathered using several manufacturer's instruments could show a wider spread. An 11.5 dB spread adds to the difficulty of directly comparing data from a series of examinations on the same component. Instrument differences must be accounted for during any comparison.

TRANSDUCER CHARACTERISTICS

Transducers are the most variable component in an examination system. A single transducer can vary over a period of time due to aging, mechanical damage, and wear. Variations between transducers, especially from different manufacturers, are due to differences in design, materials, assembly techniques, damping and the active element shape. These cause wide variations in electromechanical efficiency between transducers, leading to differing examination results. These items, alone or in combination, can cause differences in results on the same reflector during successive examinations. They are also responsible for many differences in data when an indication detected with an automated system is verified using a manual system. Of the items above, the ones best understood and documented are transducer shape and electromechanical efficiency.

The GERIS 2000 uses transducers that are eliptical (22 x 32 mm and 18 x 32 mm angle beam) or round (25 mm straight beam). These shapes have a fairly uniform sound field.

More of the useful portion of the beam (-1dB to -6dB) is concentrated near the center. This means that small flaws are likely to be interrogated by the strongest portion of the beam. This increases the likelyhood that small flaws will be recorded during an automated examination.

The manual examination systems use rectangular, 1/2" x 1", and round 1" diameter transducers. The sound field with a rectangular transducer is not as uniform as with a round element. The useful portion of the beam is not as concentrated. Small flaws are not as likely to be interrogated with the strongest portion of the beam. Manual exams traditionally record fewer low amplitude flaws than automated exams; for this reason.

The GERIS 2000 uses transducers selected to match system operating characteristics. The electromechanical effiency of these transducers is closely matched. The manufacturer's certification allows selection of search units with similar efficiency.

The transducers used in manual examination systems are catalogue items. The electromechanical effiency of these transducers is not closely matched. A measurement, called Relative Sensitivity (RS), is used to measure efficiency. Relative sensitivity is calculated by measuring the attenuation required to reduce the amplitude of a return signal to a predetermined value; usually 300 millivolts. The higher the required attenuation the greater the efficiency. The RS provides a way to select transducers of similar efficiency, by selecting those within a discreet range of RS attenuation measurements. The RS range for the transducers used with manual systems is based on the search units available. 'Selection of search units for successive examinations of the same indication should account for the possible differences in efficiency.

DISCUSSION

The equipment used during an examination can affect the recording of indications during an examination. The effect of the various components , for the systems used at Susquehanna, are estimated below. These effects have been observed over a number of examinations and the results of these have been used to refine the theoretical data. While these effects exist, they have not been as large as expected based on theoretical estimates.

System characteristics	Theoretical effect ± 3dB	Observed effect negligible.
Instrument tolerances	Theoretical effect unknown	Observed effect ± 5.5dB.
Transducer efficiency	Theoretical effect ± 6dB	Observed effect ± 3dB
Transducer shape (small flaws)	Theoretical effect ± 6dB	Observed effect ± 3dB

The data shown above shows a maximum expected difference in performance between systems of 23dB. This compares well with the observed differences between these systems.

At other Plants, the differences have ranged from 4dB through 14.5 dB. This yields an average difference of 9.25 dB. These differences are monitored during each examination. This estimate will be updated during the next use of the GERIS 2000 at Susquehanna, if required.

Direct comparisons of indications, between automated and manual examination data, is difficult for the reasons presented above. If such comparisons become necessary, care should be exercised. Equipment should be selected based on operational characteristics that closely match what was used to detect the flaw originally. Even so, there could be an 11.5 dB difference in results. As long as these differences are considered, such comparisons can be made.

EROSION/CORROSION

SCOPE OF EXAMINATIONS

UNIT 1-8RIO -- EROSION/CORROSION EXAMS -- REPORT 2
(SORTED BY PRIORITY)

REPORT DATE: 06/28/95

COMPONENT ID / DETAIL PLAN / ACC 2 LINE / COMMENTS	DESCRIPTION	REPLCD ID	SIZE	SYSTEM / ELEV / GRID	AREA / ROOM	BUILD / ERATE	SCAFF / INSUL	NOM WALL / MIN WALL / EWRNUM / EXM SCH	LINE / ISI ISO / MEAS MIN / OUT DTE	MAP NO. / ACTIVITY NO	WA NO
CROSSAROUND-E6 CROSSAROUND VT1-EXAM	ELBOW	X-17	42	MSEPD 708 5N17-10EHB	6 T-211	TB 0.00	10 B	.625 .417 X-RI08	CROSSAROUND D.8 RESP95	K-594 K0594-01	P43760
DBD1011-E3 RFP FE-1N001A INLET Z1 TEMP	ELBOW	X-50	18	FW 740 7'S19-6'WN	10 T-422	TB 0.00	9 B	1.375 1.049 X-RI08	DBD-101-1 D.29 RESP95	K-563 K0563-01	P43674
DBD1013-E2 RFP B EXIT	ELBOW	X-58	18	FW 678 8'S20-4'WL	10 T-122	TB 17.79	0 B	1.375 1.049 X-RI08	DBD-101-3 D.38 RESP95	K-564 K0564-01	P43675
DBD1015-E1 RFP FE-1N001B INLET Z1-TEMP	90 ELBOW	X-61	18	FW 740 8'N20-2'WN	10 T-422	TB 26.68	9 B	1.375 1.049 X-RI08	DBD-101-5 D.38 RESP95	K92 K0092-01	P43649
DBD1015-E2 RFP FE-1N001C INLET Z1-TEMP	90 ELBOW	X-65	18	FW 740 5'N20-2'WN	10 T-422	TB 31.59	9 B	1.375 1.049 X-RI08	DBD-101-5 D.39 RESP95	K93 K0093-01	P43650
DBD1041-E1 RFP A MIN FLOW	TEE B	X-53	10	FW 670 5'N20-7'WJC	6 T-36	TB 12.84	11 B	.844 .626 X-RI08	DBD-104-1 D.34 RESP95	K-565 K0565-01	P43676
DBD1042-E1 RFP B MIN FLOW	TEE B	X-152	10	FW 670 6'N22-7'WJC	7 T-31	TB 25.23	12 B	.844 .626 X-RI08	DBD-104-2 D.72 RESP95	K-566 K0566-01	P43677

UNIT 1-8RIO -- EROSION/CORROSION EXAMS -- REPORT 2
(SORTED BY PRIORITY)

REPORT DATE: 06/28/95

COMPONENT ID / DESCRIPTION / REPLCD ID	SIZE	SYSTEM / AREA / BUILD / SCAFF	NOM WALL / LINE	MAP NO. / WA NO
DETAIL PLAN		ELEV / ROOM / ERATE / INSUL	MIN WALL / ISI ISO	
ACC 2 LINE		GRID	EWRNUM / MEAS MIN	ACTIVITY NO
COMMENTS			EXM SCH / OUT DTE	
DBD1043-E1 / TEE B / X-153	10	FW / 7 / TB / 12	.844 / DBD-104-3	K-567 / P43678
RFP C MIN FLOW		670 / T-31 / 15.87 / B	.626 / D.73	K0567-01
		3'S21-10'EHE	X-RI08 / RESP95	
DBD1051-E2 / ELBOW / X-55	14	FW / 11 / TB / 0	1.094 / DBD-105-1	K-568 / P43679
RFP A LOW LOAD BYPASS		732 / T-422 / 0.00 / B	.816 / D.35	K0568-01
		8'S21-4'WN	X-RI08 / RESP95	
DLA1021-E3A / TEE D / X-175A	20	FW / 26 / RB / 0	1.031 / DLA-102-1	K95 / P43651
'A'FW TO RPV (MAIN)		754 / R-516 / 0.00 / M	.687 / D.82	K0095-01
Z1,Z2 TEMP		270DEG AZ @ 22RCL	X-RI08 / RESP95	
DLA1021-E3B / TEE D / X-175B	12	FW / 26 / RB / 0	.688 / DLA-102-1	K95 / P43651
'A' FW TO RPV (BRANCH)		754 / R-516 / 26.2 / M	.459 / D.82	K0095-01
Z1, Z2 TEMP		270DEG AZ @ 22RCL	X-RI08 / RESP95	
DLA1021-E5 / 90 ELBOW / X-177	12	FW / 26 / RB / 0	.688 / DLA-102-1	K96 / P43652
'A' FW TO RPV		754 / R-516 / 41.92 / M	.459 / D.82	K0096-01
HAND GRID		210DEG AZ @ 22RCL	X-RI08 / RESP95	
DLA1041-E3A / TEE D / X-140A	20	FW / 26 / RB / 0	1.031 / DLA-104-1	K99 / P43653
RPV INLET B		752 / R-516 / 00.00 / M	.687 / D.67	K0099-01
Z1-TEMP		90AZ-22RCL	X-RI08 / RESP95	
DLA1041-E3B / TEE D / X-140B	12	FW / 26 / RB / 0	.688 / DLA-104-1	K99 / P43653
RPV INLET B		752 / R-516 / 26.2 / M	.459	K0099-01
Z2-TEMP		90AZ-22RCL	X-RI08 / RESP95	

UNIT 1-8RIO -- EROSION/CORROSION EXAMS -- REPORT 2
(SORTED BY PRIORITY)

REPORT DATE: 06/28/95

COMPONENT ID / DETAIL PLAN / ACC 2 LINE / COMMENTS	DESCRIPTION	REPLCD ID	SIZE	SYSTEM / ELEV / GRID	AREA / ROOM	BUILD / ERATE	SCAFF / INSUL	NOM WALL / MIN WALL / EWRNUM / EXM SCH	LINE / ISI ISO / MEAS MIN / OUT DTE	MAP NO. / ACTIVITY NO	WA NO
DLA1041-E4A RPV INLET B HAND GRID	REDUCER	X-141A	20	FW 754 90AZ-22RCL	26 R-516	RB 33.72	0 M	1.031 .687 X-RI08	DLA-104-1 D.67 RESP95	K100 K0100-01	P43654
DLA1041-E4B RPV INLET B HAND GRID	REDUCER	X-141B	12	FW 754 90AZ-22RCL	26 R-516	RB 29.69	0 M	.688 .459 X-RI08	DLA-104-1 D.67 RESP95	K100 K0100-01	P43654
DLA1041-E5 RPV INLET B Z1-TEMP	90 ELBOW	X-142	12	FW 754 150DEG AZ-23'RCL	26 R-516	RB 38.43	0 M	.688 .459 X-RI08	DLA-104-1 D.67 RESP95	K156 K0156-01	P43659
GAD1011-E1 MSEP DRAIN TO 4A Z1-TEMP	TEE B	X-12	10	MSEPD 707 14'N16-5'EL	9 T-215	TB 88.82	5 B	.500 .330 M59198 X-RI08	GAD-101-1 D.3 RESP95	K39 K0039-01	P43631
GAD1011-E2 A MSEP DRAIN TO FWH 4A EXISTING GRID	VALVE	X-167	6	MSEPD 707 4'S15-8'EL	9 T-215	TB 13.82	5 B	.280 .186 X-RI08	GAD-101-1 D.3 RESP95	K40 K0040-01	P43632
GAD1012-E1 SIS: X-12, X-249 Z1-TEMP	TEE B	X-248	10	MSEPD 708 14'N19-5'EL	10 T-214	TB 34.11	6 B	.500 .330 X-RI08	GAD-101-2 D.3 RESP95	K41 K0041-01	P43633
GAD1013-E1 SIS: X-12, X-248 Z1-TEMP, Z2-TEMP	TEE B	X-249	10	MSEPD 707 14'N24-5'EL	11 T-212	TB 30.58	6 B	.500 .330 X-RI08	GAD-101-3 D.3 RESP95	K42 K0042-01	P43634

UNIT 1-8RIO -- EROSION/CORROSION EXAMS -- REPORT 2
(SORTED BY PRIORITY)

REPORT DATE: 06/28/95

COMPONENT ID / DESCRIPTION / REPLCD ID	SIZE	SYSTEM / AREA / BUILD / SCAFF	NOM WALL / LINE	MAP NO. / WA NO
DETAIL PLAN		ELEV / ROOM / ERATE / INSUL	MIN WALL / ISI ISO	
ACC 2 LINE		GRID	EWRNUM / MEAS MIN	ACTIVITY NO
COMMENTS			EXM SCH / OUT DTE	
GAD1013-E2 VALVE X-169		MSEPD 11 TB 5	.280 GAD-101-3	K-43 P43635
A MSEP DRAIN TO FWH 4C	6	707 T-212 34.04 B	.186 D.3	
		14'N24-3'EL		K0043-01
			X-RI08 RESP95	
GBD1021-E1 90 ELBOW X-192		EXTST 6 TB 0	.237 GBD-102-1	K-569 P43680
EXTRACTION 5A DRAIN	4	701 T-211 24.05 B	.158 D.75	
		1'S19-10'WK		K0569-01
			X-RI08 RESP95	
GBD1021-E2 90 ELBOW X-155		EXTST 5 TB 5	.237 GBD-102-1	K45 P43636
EXTRACTION 5A DRAIN	4	708 T-211 72.15 B	.158 D.75	
Z1-TEMP		6S15-4WK	M59201	K0045-01
			X-RI08 RESP95	
GBD1022-E1 90 ELBOW X-191		EXTST 7 TB 0	.237 GBD-102-2	K49 P43640
EXTRACTION 5B DRAIN	4	701 T-211 56.96 B	.158 D.74	
Z1 TEMP		0'N21-6'EHE	M59200	K0049-01
			X-RI08 RESP95	
GBD1022-E2 90 ELBOW X-154		EXTST 6 TB 6	.237 GBD-102-2	K46 P43637
EXTRACTION 5B DRN	4	708 T-211 77.21 B	.158 D.74	
Z1 TEMP		12N19-4WK	M59203	K0046-01
			X-RI08 RESP95	
GBD1023-E1 ELBOW X-126		EXTST 7 TB 0	.237 GBD-102-3	K-47 P43638
EXTRACTION #5 C DRAINS	4	701 T-211 26.58 B	.158 D.11	
		1N23-1'EHE		K0047-01
			X-RI08 RESP95	
GBD1023-E2 90 ELBOW X-25		EXTST 7 TB 5	.237 GBD-102-3	K48 P43639
EXTR 5C DRAIN (20C)	4	707 T-211 40.51 B	.158 D.11	
Z1-TEMP		1'N23-4WK		K0048-01
			X-RI08 RESP95	

UNIT 1-8RIO -- EROSION/CORROSION EXAMS -- REPORT 2
(SORTED BY PRIORITY)

REPORT DATE: 06/28/95

COMPONENT ID	DESCRIPTION	REPLCD ID	SIZE	SYSTEM	AREA	BUILD	SCAFF	NOM WALL	LINE	MAP NO.	WA NO
DETAIL PLAN				ELEV	ROOM	ERATE	INSUL	MIN WALL	ISI ISO		
ACC 2 LINE				GRID				EWRNUM	MEAS MIN	ACTIVITY NO	
COMMENTS								EXM SCH	OUT DTE		
GBD1031-E1A	REDUCER	X-791		FWHD	6	TB	0	.322	GBD103-1	K207	P43618
SIS: GBD1032-E2A, GBD1033-E1A			8	701	T-211	4.25	B	.215	GBD103-1		
Z1-TEMP				12'S19-0'@JA						K0207-01	
								X-RIO8	RESP95		
GBD1031-E1B	REDUCER	X-791		FWHD	6	TB	0	.280	GBD103-1	K207	P43618
SIS: GBD1032-E1B, GBD1033-E1B			6	701	T-211	0.00	B	.187	GBD103-1		
Z1-TEMP				12'S19-0'@JA						K0207-01	
								X-RIO8	RESP95		
GBD1032-E1A	REDUCER	X-793		FWHD	7	TB	0	.322	GBD103-2	K208	P43619
SIS: GBD1031-E1A, GBD1033-E1A			8	701	T-211	17.02	B	.215	GBD103-2		
Z1-TEMP				12'S21-1'EJ				M59199		K0208-01	
								X-RIO8	RESP95		
GBD1032-E1B	REDUCER	X-793		FWHD	7	TB	0	.280	GBD1032-2	K208	P43619
SIS: GBD1031-E1B, GBD1033-E1B			6	701	T-211	61.68	B	.187	GBD103-2		
Z1-TEMP				12'S21-1'EJ				M59199		K0208-01	
								X-RIO8	RESP95		
GBD1042-E1	ELBOW	X-158		FW	10	TB	5	.300	GBD-104-2	K-570	P43681
FWH 5B VENT			3	707	T-214	3.0	B	.200	D.17		
				4'S19-16'WM						K0570-01	
								X-RIO8	RESP95		
GBD1074-E1	ELBOW	X-156		CDEM	10	TB	15	.656	GBD-107-4	K-571	P43682
DEMIN B INLET			16	692	T-123	20.54	B	.437	D.37		
				5'S18-4'WN						K0571-01	
								X-RIO8	RESP95		
GBD1074-E2	ELBOW	X-57		CDEM	10	TB	15	.656	GBD-107-4	K-572	P43683
DEMIN. A INLET			16	692	T-124	31.05	B	.437	D.37		
				4'S17-4'WN						K0572-01	
								X-RIO8	RESP95		

UNIT 1-8RIO -- EROSION/CORROSION EXAMS -- REPORT 2
(SORTED BY PRIORITY)

REPORT DATE: 06/28/95

COMPONENT ID / DETAIL PLAN / ACC 2 LINE / COMMENTS	DESCRIPTION	REPLCD ID	SIZE	SYSTEM / ELEV / GRID	AREA / ROOM	BUILD / ERATE	SCAFF / INSUL	NOM WALL / MIN WALL / EWRNUM / EXM SCH	LINE / ISI ISO / MEAS MIN / OUT DTE	MAP NO. / ACTIVITY NO	WA NO
GBD1153-E1 FW S-U AFTER FO-10659C	ELBOW	X-36	6	FW 666 4'N21-10'EG	3 T-40	TB 0.00	10 B	.280 .187 X-RI08	GBD-115-3 D.22 RESP95	K-578 K0578-01	P43687
GBD1153-E2 F.W. C START-UP FO-10659C	ORIFICE	X-47	6	FW 665 4'S20-10'EG	3 T-40	TB 0.00	10 B	.280 .187 X-RI08	GBD-115-3 D.22 RESP95	K-579 K0579-01	P43688
GBD1182-E1 F.W. #2B TO 3B Z1-HAND GRID	90 ELBOW	X-150	20	FW 712 6'N21-19'EG	3 T-211	TB 57.19	8 B	.812 .541 M59204 X-RI08	GBD-118-2 D.70 RESP95	K63 K0063-01	P43645
GBD1211-E2 RFP C INLET	ELBOW	X-63	20	FW 686 1'N23-13'WM	11 T-128	TB 11.43	8 B	.812 .541 X-RI08	GBD-121-1 D.30 RESP95	K-580 K0580-01	P43689
GBD1212-E1 RFP A INLET	ELB & RED	X-45	20	FW 686 1'S19-5'WL	10 T-128	TB 36.53	10 B	.812 .541 X-RI08	GBD-121-2 D.30 RESP95	K-581 K0581-01	P43690
GBD1213-E2 F.W. 5A EXIT	ELBOW	X-49	20	FW 710 2'N14-4'WM	9 T-217	TB 9.23	10 B	.812 .541 X-RI08	GBD-121-3 D.30 RESP95	K-582 K0582-01	P43691
GBD1214-E2	ELBOW	X-60	20	FW 710 1'S20-13'WM	10 T-213	TB 3.32	10 B	0.812 0.541 X-RI08	GBD-121-4 RESP95	K-583 K0583-01	P43692

UNIT 1-8RIO -- EROSION/CORROSION EXAMS -- REPORT 2
(SORTED BY PRIORITY)

REPORT DATE: 06/28/95

COMPONENT ID / DESCRIPTION / REPLCD ID	SIZE	SYSTEM / AREA / BUILD / SCAFF	NOM WALL / LINE	MAP NO. / WA NO
DETAIL PLAN		ELEV / ROOM / ERATE / INSUL	MIN WALL / ISI ISO	
ACC 2 LINE		GRID	EWRNUM / MEAS MIN	ACTIVITY NO
COMMENTS			EXM SCH / OUT DTE	
GBD1081-E3 VALVE X-219	4	COND 9 TB 0 658 T-52 0.00 B 3'N16-5'EK	.237 GBD-108-1 .157 D.65 X-RIO8 RESP95	K-573 P43684 K0573-01
REJECT TO CST				
GBD1081-E4A REDUCER X-220A	12	COND 10 TB 0 658 T-52 00.00 10'N17-4'EK	.500 GBD-108-1 .333 D.65 X-RIO8 RESP95	K52 P43641 K0052-01
REJECT TO CST, BOTH SIDES OF VALVE Z1-OBS				
GBD1081-E4B REDUCER X-220B	8	COND 10 TB 8 658 T-52 00.00 10'N17-4'EK	.322 GBD-108-1 .215 D.65 X-RIO8 RESP95	K52 P43641 K0052-01
REJECT TO CST, BOTH SIDE OF VALVE Z1-OBS				
GBD1091-E3 REDUCER X-137	14	COND 7 TB 0 678 T-113 36.52 B 4S24-15WK	.500 GBD-109-1 .333 D.66 X-RIO8 RESP95	K53 P43642 K0053-01
SHORT PATH HAND GRID				
GBD1131-E1 ORIFICE X-139	16	FW 7 TB 9 668 T-36 25.11 B 6'N24-17'EHB	.656 GBD-113-1 .437 D.23 X-RIO8 RESP95	K-574 P43685 K0574-01
LONGPATH AFTER HV-10570				
GBD1131-E2 45 ELBOW X-37	16	FW 7 TB 15 718 T-211 35.15 B 6'N24-9'WJC	.656 GBD-113-1 .437 D.23 X-RIO8 RESP95	K54 P43643 K0054-01
LONG PATH AFTER FO-10570B Z1-OBS				
GBD1131-E3 ORIFICE X-46	16	FW 7 TB 15 718 T-211 13.69 B 5'N24-14'WK	.656 GBD-113-1 .437 D.23 X-RIO8 RESP95	K-575 P43686 K0575-01
LONG PATH AFTER FO-10570A				

UNIT 1-8RIO -- EROSION/CORROSION EXAMS -- REPORT 2
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REPORT DATE: 06/28/95

COMPONENT ID	DESCRIPTION	REPLCD ID	SIZE	SYSTEM	AREA	BUILD	SCAFF	NOM WALL	LINE	MAP NO.	WA NO
DETAIL PLAN				ELEV	ROOM	ERATE	INSUL	MIN WALL	ISI ISO		
ACC 2 LINE				GRID				EWRNUM	MEAS MIN	ACTIVITY NO	
COMMENTS								EXM SCH	OUT DTE		
GBD1215-E2	90 ELBOW	X-64		FW	11	TB	8	.812	GBD-121-5	K62	P43644
R.W. 5C EXIT			20	710	T-213	44.64	B	.541	D.30		
Z1-TEMP				4'N22-0'@LA						K0062-01	
								X-RIO8	RESP95		
GBD1252-E1A	TEE F	X-482A		MCPR	10	TB	0	0.237	GBD-125-2	K147	P43655
			4	734	T-422	12.5	C	.157			
HAND GRID				1'N15-2'WL						K0147-01	
								X-RIO8	RESP95		
GBD1252-E1B	TEE F	X-482B		MCPR	10	TB	0	.250	GBD-125-2	K147	P43655
			1	734	T-422	47.6	C	.166			
HAND GRID				1'N15-2'WL				M59208		K0147-01	
								X-RIO8	RESP95		
GBD1261-E1	VALVE	X-218		CDEM	12	TB	8	.322	GBD-126-1	K-584	P43693
DEMIN RECYCLE TO CONDENSER HV-11617			8	668	T-42	57.94	B	.215	D.111		
				4'S24-8'EN						K0584-01	
								X-RIO8	RESP95		
GBD1401-E2	ELBOW	X-32		FW	9	TB	5	.300	GBD-140-1	K-585	P43694
FWH 4A VENT			3	706	T-215	2.0	B	.200	D-18		
				6'N15-10'EK				M59241		K0585-01	
								X-RIO8	RESP95		
GFD1012-E3	ELBOW	X-9		EXTST	6	TB	20	.375	GFD-101-2	K-586	P43695
EXTR TO FWH 5B, C			14	718	T-211	24.8	B	.250	D.2		
				3'N17-0'WHB						K0586-01	
								X-RIO8	RESP95		
GFD1012-E4	PIPE	X-8		EXTST	6	TB	20	.375	GFD-101-2	K-587	P43696
EXTR TO FWH 5B, C			14	725	T-211	38.4	B	.250	D.2		
				3'N17-0'WHB						K0587-01	
								X-RIO8	RESP95		

UNIT 1-8RIO -- EROSION/CORROSION EXAMS -- REPORT 2
(SORTED BY PRIORITY)

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COMPONENT ID	DESCRIPTION	REPLCD ID	SIZE	SYSTEM	AREA	BUILD	SCAFF	NOM WALL	LINE	MAP NO.	WA NO
DETAIL PLAN				ELEV	ROOM	ERATE	INSUL	MIN WALL	ISI ISO		
ACC 2 LINE				GRID				EWRNUM	MEAS MIN	ACTIVITY NO	
COMMENTS								EXM SCH	OUT DTE		
GFD1013-E2	PIPE	X-863		EXTST	9	TB	7	.0375	GFD101-3	K-595	P43761
			16	709	T-215	28.0	B	.250			
				9'N16-16'EL						K0595-01	
								X-RIO8	RESP95		
GFD1014-E3	PIPE	X-864		EXTST	10	TB	6	.375	GFD101-4	K-596	P43762
			16	708	T-214	12.0	B	.250			
				9'S18-16'EL						K0596-01	
								X-RIO8	RESP95		
GFD1015-E2	PIPE	X-865		EXTST	11	TB	5	.375	GFD101-5	K-597	P43763
			16	706	T-212	00.00	B	.250			
				9'N24-16'EL						K0597-01	
								X-RIO8	RESP95		
HAD1021-E2	TEE B	X-1		FW	6	TB	4	.375	HAD-102-1-E2	K550	P43739
DRAIN 3A TO 2A			14	707	T-211	14.89	B	.328	D.1		
				5'N19-0'@JB						K0550-01	
								X-RIO8	RESP95		
HBD1061-E2	ORIFICE	X-85		TS	6	TB	4	.280	HBD-106-1	K-589	P43697
MSV STEAM LEAKOFF FE-10104			6	707	T-211	27.65	B	.186	D.42		
				2'S17-5'EHB						K0589-01	
								X-RIO8	RESP95		
HBD1071-E1	45 ELBOW	X-847		EXTST	6	TB	16	.375	HBD-107-1	K-510	P43624
			24	719	HPCON	49.6		.250			
HAND GRID				6'S19-6'EHB						K0510-01	
								X-RIO8	RESP95		
HBD1071-E2	PIPE	X-846		EXTST	6	TB	18	.375	HBD-107-1	K-511	P43625
			24	721	HPCON	44.80		.250			
HAND GRID				6'S19-6'EHB						K0511-01	
								X-RIO8	RESP95		

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(SORTED BY PRIORITY)

REPORT DATE: 06/28/95

COMPONENT ID / DETAIL PLAN / ACC 2 LINE / COMMENTS	DESCRIPTION	REPLCD ID	SIZE	SYSTEM / ELEV / GRID	AREA / ROOM	BUILD / ERATE	SCAFF / INSUL	NOM WALL / MIN WALL / EWRNUM / EXM SCH	LINE / ISI ISO / MEAS MIN / OUT DTE	MAP NO. / ACTIVITY NO	WA NO
HBD1071-E3 Z1, Z2 TEMP	90 ELBOW	X-825	24"	EXTST 717 6'S19-3'EHB	6 HPCON	TB 90.4	15	.375 .250 M59234 X-RI08	HBD107-1 RESP95	K-512 K0512-01	P43626
HBD10710-E1 HAND GRID	45 ELBOW	X-859	24	EXTST 719 5'S23-6'WHB	3 LPCON	TB 49.6	16	.375 .250 X-RI08	HBD-107-10 RESP95	K-539 K0539-01	P43728
HBD10710-E2 HAND GRID	PIPE	X-858	24	EXTST 721 5'S23-6'WHB	3 LPCON	TB 36.8	18	.375 .250 X-RI08	HBD-107-10 RESP95	K-540 K0540-01	P43729
HBD10710-E3	90 ELBOW	X-838	24"	EXTST 717 3'S23-3'WHB	3 LPCON	TB 45.6	15	.375 .250 X-RI08	HBD107-10 RESP95	K-541 K0541-01	P43730
HBD10711-E1 HAND GRID	PIPE	X-862	24	EXTST 721 7'N23-6'EHB	7 LPCON	TB	18	.375 .250 X-RI08	HBD-107-11 RESP95	K-542 K0542-01	P43731
HBD10711-E2 HAND GRID	45 ELBOW	X-821	24	EXTST 719 7'N23-6'EHB	7 LPCON	TB 88.8	16	.375 .250 M59232 X-RI08	HBD-107-11 RESP95	K-543 K0543-01	P43732
HBD10711-E3	90 ELBOW	X-840	24"	EXTST 718 7'N23-8'EHB	7 LPCON	TB 98.4	15	.375 .250 M59233 X-RI08	HBD107-11 RESP95	K-544 K0544-01	P43733

UNIT 1-8RIO -- EROSION/CORROSION EXAMS -- REPORT 2
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REPORT DATE: 06/28/95

COMPONENT ID / DETAIL PLAN / ACC 2 LINE / COMMENTS	DESCRIPTION	REPLCD ID	SIZE	SYSTEM / ELEV / GRID	AREA / ROOM	BUILD / ERATE	SCAFF / INSUL	NOM WALL / MIN WALL / EWRNUM / EXM SCH	LINE / ISI ISO / MEAS MIN / OUT DTE	MAP NO. / ACTIVITY NO	WA NO
HBD10711-E4	90 ELBOW	X-841	24"	EXTST 713 4'S23-10'EHB	7 LPCON	TB 190.4	10	.375 .250 M59225 X-RI08	HBD107-11 RESP95	K-545 K0545-01	P43734
HBD10712-E1 HAND GRID	PIPE	X-856	24	EXTST 721 7'N23-6'WHB	3 LPCON	TB 30.4	18	.375 .250 X-RI08	HBD-107-12 RESP95	K-546 K0546-01	P43735
HBD10712-E2 HAND GRID	45 ELBOW	X-857	24	EXTST 719 7'N23-6'WHB	3 LPCON	TB 167.2	16	.375 .250 M59223 X-RI08	HBD-107-12 RESP95	K-547 K0547-01	P43736
HBD10712-E3	90 ELBOW	X-836	24"	EXTST 718 7'N23-8'WHB	3 LPCON	TB 49.60	15	.375 .250 X-RI08	HBD107-12 RESP95	K-548 K0548-01	P43737
HBD10712-E4	90 ELBOW	X-837	24"	EXTST 713 4'S23-10'WHB	3 LPCON	TB 168.0	10	.375 .250 M59226 X-RI08	HBD107-12 RESP95	K-549 K0549-01	P43738
HBD1072-E1 HAND GRID	45 ELBOW	X-845	24	EXTST 719 7'S19-6'WHB	2 HPCON	TB 63.2	16	.375 .250 M59216 X-RI08	HBD-107-2 RESP95	K-513 K0513-01	P43702
HBD1072-E2 HAND GRID	PIPE	X-844	24	EXTST 721 7'S19-6'WHB	2 HPCON	TB 49.6	18	.375 .250 X-RI08	HBD-107-2 RESP95	K-514 K0514-01	P43703

UNIT 1-8RIO -- EROSION/CORROSION EXAMS -- REPORT 2
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REPORT DATE: 06/28/95

COMPONENT ID / DETAIL PLAN / ACC 2 LINE / COMMENTS	DESCRIPTION	REPLCD ID	SIZE	SYSTEM / ELEV / GRID	AREA / ROOM	BUILD / ERATE	SCAFF / INSUL	NOM WALL / MIN WALL / EWRNUM / EXM SCH	LINE / ISI ISO / MEAS MIN / OUT DTE	MAP NO. / ACTIVITY NO	WA NO
HBD1072-E3	90 ELBOW	X-824	24"	EXTST 717 6'S19-3'WHB	2 HPCON	TB 118.4	15	.375 .250 M59213 X-RI08	HBD107-2 RESP95	K-515 K0515-01	P43704
HBD1073-E1 HAND GRID	PIPE	X-848	24	EXTST 721 5'N19-6'EHB	6 HPCON	TB 47.2	18	.375 .250 X-RI08	HBD-107-3 RESP95	K-516 K0516-01	P43705
HBD1073-E2 HAND GRID	45 ELBOW	X-849	24	EXTST 719 5'N19-6'EHB	6 HPCON	TB 23.2	16	.375 .250 X-RI08	HBD-107-3 RESP95	K-517 K0517-01	P43706
HBD1073-E3	90 ELBOW	X-826	24'	EXTST 717 5'N19-8'EHB	6 HPCON	TB 98.4	15	.375 .250 M59218 X-RI08	HBD107-3 RESP95	K-518 K0518-01	P43707
HBD1073-E4	90 ELBOW	X-827	24'	EXTST 712 6'S19-10'EHB	6 HPCON	TB 100.0	10	.375 .250 M59214 X-RI08	HBD107-3 RESP95	K-519 K0519-01	P43708
HBD1074-E1 TEMP	PIPE	X-842	24	EXTST 721 5'N19-6'WHB	2 HPCON	TB 48.8	18	.375 .250 X-RI08	HBD-107-4 RESP95	K-520 K0520-01	P43709
HBD1074-E2 Z1, Z2 TEMP	45 ELBOW	X-843	24	EXTST 719 5'N19-6'WHB	2 HPCON	TB 29.6	16	.375 .250 X-RI08	HBD-107-4 RESP95	K-521 K0521-01	P43710

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COMPONENT ID / DETAIL PLAN / ACC 2 LINE / COMMENTS	DESCRIPTION	REPLCD ID	SIZE	SYSTEM / ELEV / GRID	AREA / ROOM	BUILD / ERATE	SCAFF / INSUL	NOM WALL / MIN WALL / EWRNUM / EXM SCH	LINE / ISI ISO / MEAS MIN / OUT DTE	MAP NO. / ACTIVITY NO	WA NO
HBD1074-E3	90 ELBOW	X-822	24"	EXTST 717 5'N19-8'WHB	2 HPCON	TB 77.6	15	.375 .250 M59220 X-RI08	HBD107-4 RESP95	K-522 K0522-01	P43711
HBD1074-E4	90 ELBOW	X-823	24"	EXTST 712 6'S19-10WHB	2 HPCON	TB 102.4	10	.375 .250 M59215 X-RI08	HBD107-4 RESP95	K-523 K0523-01	P43712
HBD1075-E1 HAND GRID	45 ELBOW	X-829	24	EXTST 719 6'S21-6'EHB	7 IPCON	TB 104.8	16	.375 .250 M59230 X-RI08	HBD-107-5 RESP95	K224 K0224-01	P43622
HBD1075-E2 HAND GRID	PIPE	X-854	24	EXTST 721 6'S21-6'EHB	7 IPCON	TB 41.6	18	.375 .250 X-RI08	HBD-107-5 RESP95	K-524 K0524-01	P43713
HBD1075-E3	90 ELBOW	X-832	24'	EXTST 717 4'S21-3'EHB	7 IPCON	TB 57.6	15	.375 .250 M59227 X-RI08	HBD107-5 RESP95	K-525 K0525-01	P43714
HBD1076-E1 HAND GRID	45 ELBOW	X-853	24	EXTST 719 6'S21-6'WHB	3 IPCON	TB 73.6	16	.375 .250 M59229 X-RI08	HBD-107-6 RESP95	K-526 K0526-01	P43715
HBD1076-E2 HAND GRID	PIPE	X-852	24	EXTST 721 6'S21-6'WHB	3 IPCON	TB 31.2	18	.375 .250 X-RI08	HBD-107-6 RESP95	K-527 K0527-01	P43716

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HBD1076-E3	90 ELBOW	X-831	24"	EXTST 717 4'S21-3'WHB	3 IPCON	TB 70.40	15	.375 .250 M59221 X-RI08	HBD107-6 RESP95	K-528 K0528-01	P43717
HBD1077-E1 HAND GRID	PIPE	X-833	24	EXTST 721 6'N21-6'EHB	7 IPCON	TB 48.0	18	.375 .250 X-RI08	HBD-107-7 RESP95	K225 K0225-01	P43623
HBD1077-E2 HAND GRID	45 ELBOW	X-855	24	EXTST 719 6'N21-6'EHB	7 IPCON	TB 49.6	16	.375 .250 X-RI08	HBD107-7 RESP95	K-529 K0529-01	P43718
HBD1077-E3	90 ELBOW	X-834	24'	EXTST 718 6'N21-8'EHB	7 IPCON	TB 69.6	15	.375 .250 M59231 X-RI08	HBD107-7 RESP95	K-530 K0530-01	P43719
HBD1077-E4	90 ELBOW	X-835	24"	EXTST 713 5'S21-10'EHB	7 IPCON	TB 204.8	10	.375 .250 M59228 X-RI08	HBD107-7 RESP95	K-531 K0531-01	P43720
HBD1078-E1 HAND GRID	PIPE	X-850	24	EXTST 721 6'N21-6'WHB	3 IPCON	TB 40.8	18	.375 .250 X-RI08	HBD107-8 RESP95	K-532 K0532-01	P43721
HBD1078-E2 HAND GRID	45 ELBOW	X-851	24	EXTST 719 6'N21-6'WHB	3 IPCON	TB 57.6	16	.375 .250 M59219 X-RI08	HBD-107-8 RESP95	K-533 K0533-01	P43722

UNIT 1-8RIO -- EROSION/CORROSION EXAMS -- REPORT 2
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COMPONENT ID / DETAIL PLAN / ACC 2 LINE / COMMENTS	DESCRIPTION	REPLCD ID	SIZE	SYSTEM / ELEV / GRID	AREA / ROOM	BUILD / ERATE	SCAFF / INSUL	NOM WALL / MIN WALL / EWRNUM / EXM SCH	LINE / ISI ISO / MEAS MIN / OUT DTE	MAP NO. / ACTIVITY NO	WA NO
HBD1078-E3	90 ELBOW	X-828	24"	EXTST 717 6'N21-8'WHB	3 IPCON	TB 47.2	15	.375 .250 X-RI08	HBD107-8 RESP95	K-534 K0534-01	P43723
HBD1078-E4	90 ELBOW	X-830	24'	EXTST 712 5'S21-10'WHB	3 IPCON	TB 112.8	10	.375 .250 M59235 X-RI08	HBD107-8 RESP95	K-535 K0535-01	P43724
HBD1079-E1 HAND GRID	45 ELBOW	X-861	24	EXTST 719 5'S23-6'EHB	7 LPCON	TB 120.0	16	.375 .250 M59224 X-RI08	HBD-107-9 RESP95	K-536 K0536-01	P43725
HBD1079-E2 HAND GRID	PIPE	X-860	24	EXTST 721 5'S23-6'EHB	7 LPCON	TB 40.8	18	.375 .250 X-RI08	HBD-107-9 RESP95	K-537 K0537-01	P43726
HBD1079-E3	90 ELBOW	X-839	24"	EXTST 717 3'S23-3'EHB	7 LPCON	TB 48.8	15	.375 .250 X-RI08	HBD107-9 RESP95	K-538 K0538-01	P43727
HBD1081-E1 EXTR TO FWH 4C	TEE A	X-15	24	EXTST 717 3N19-5'5"WHB	2 HPCON	TB 00.00	12	.375 .250 X-RI08	HFD-108-1 D.6 RESP95	K64 K0064-01	P43646
HBD1081-E2 SIS: X-257,260,261,264,265	45 ELBOW	X-256	16	EXTST 720 3'S19-5'WHB	2 HPCON	TB 00.00	15	.375 .250 X-RI08	HBD-108-1 D.6 RESP95	K65 K0065-01	P43647

UNIT 1-8RIO -- EROSION/CORROSION EXAMS -- REPORT 2
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COMPONENT ID / DETAIL PLAN / ACC 2 LINE / COMMENTS	DESCRIPTION	REPLCD ID	SIZE	SYSTEM / ELEV / GRID	AREA / ROOM	BUILD / ERATE	SCAFF / INSUL	NOM WALL / MIN WALL / EWRNUM / EXM SCH	LINE / ISI ISO / MEAS MIN / OUT DTE	MAP NO. / ACTIVITY NO	WA NO
HBD1091-E10	45 ELBOW	X-709	26	EXTST 712 4'S16-5'WJC	6 T-211	TB 0.0	10 B	0.375 0.250 X-RI08	HBD109-1 HBD109-1 RESP95	K6 K0006-01	P43628
HBD1093-E8 Z1, Z3 TEMP	90 ELBOW	X-728	26	EXTST 712 4S21-11WK	7 T-211	TB 3.2	10 B	0.375 0.250 X-RI08	HBD109-3 HBD109-3 RESP95	K32 K0032-01	P43629
HBD1093-E9 Z1-TEMP	90 ELBOW	X-729	26	EXTST 712 9N24-11WK	7 T-211	TB 41.60	10 B	0.375 0.250 X-RI08	HBD109-3 HBD109-3 RESP95	K33 K0033-01	P43630
HBD1094-E1	ELBOW 90	X-735	20	EXTST 714 2'N19-10'WK	6 T-211	TB 21.6	12 B	0.375 0.250 X-RI08	HBD109-4 HBD109-4 RESP95	K556 K0556-01	P43667
HBD1141-E2 FWH 2A VENT	ELBOW	X-34	3	FW 704 7'S18-3'EGB	2 T-211	TB 22.22	0 B	.216 .144 X-RI08	HBD-114-1 D.20 RESP95	K-590 K0590-01	P43698
HBD1212-E4A COND. PUMP A INLET (MAIN)	TEE B	X-56A	48	COND 649 2'N25-5'WK	8 T-31	TB 6.4	0 B	.375 .250 X-RI08	HBD-121-2 D.36 RESP95	K-591 K0591-01	P43699
HBD1212-E4B COND. PUMP A INLET (BRANCH)	TEE D	X-56B	30	COND 649 2'N25-5'WK	8 T-31	TB 7.20	0 B	.375 .250 X-RI08	HBD-121-2 D.36 RESP95	K-591 K0591-01	P43699

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COMPONENT ID / DETAIL PLAN / ACC 2 LINE / COMMENTS	DESCRIPTION	REPLCD ID	SIZE	SYSTEM / ELEV / GRID	AREA / ROOM	BUILD / ERATE	SCAFF / INSUL	NOM WALL / MIN WALL / EWRNUM / EXM SCH	LINE / ISI ISO / MEAS MIN / OUT DTE	MAP NO. / ACTIVITY NO	WA NO
HBD1542-E3 HP TURB INNER GLAND LKOFF Z1-TEMP	90 ELBOW	X-166	4	TS 726 4'5"N18-0'HB	6 T-211	TB 31.25	22 B	.237 .157 X-RI08	HBD-154-2 D.79 RESP95	K89 K0089-01	P43648
HBD1662-E1 EXTR.STEAM TO SSE	ELBOW	X-159	8	TS 738 8'N16-11'WM	9 T-416	TB 11.21	8 B	.322 .215 X-RI08	HBD-166-2 D.76 RESP95	K-592 K0592-01	P43700
HBD1681-E3 Z1-TEMP	45 ELBOW	X-816	4	SSE 695 6'S17-3'WHB	2 T-113	TB 24.05	15 B	.237 .157 X-RI08	HBD168-1 HBD168-1 RESP95	K211 K0211-01	P43620
SPEBD1112-E1 RFPT B HP BEFORE SEAT DRAIN	90 ELBOW	X-186	1	RFPT 670 6'N21-12'WK	7 T-36	TB 18.48	12 B	.358 .239 X-RI08	SP-EBD-111-2 D.86 RESP95	K-598 K0598-01	P43764
SPEBD1112-E2 RFPT B HP BEFORE SEAT DRAIN FO-12712B	ORIFICE	X-185	1	RFPT 670 6'N21-11'WK	7 T-36	TB 21.84	12 B	.358 .239 X-RI08	SP-EBD-111-2 D.86 RESP95	K-599 K0599-01	P43765
SPEBD1115-E1 RFPT A HP BEFORE SEAT DRAIN AMERTAP IMPACT	90 ELBOW	X-184	1	RFPT 670 6'S18-12'WK	6 T-36	TB 12.6	12 B	.358 .239 X-RI08	SP-EBD-111-5 D.85 RESP95	K-600 K0600-01	P43766
SPEBD1143-E1 RCIC STEAM LINE DRAIN EXISTING GRID	90 ELBOW	X-133	1	RCIC 723 10'S23.5-10WP	25 R-411	WING 36.66	4 B	.358 .238 X-RI08	SP-EBD-114-3 D.62 RESP95	K215 K0215-01	P43621

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COMPONENT ID / DETAIL PLAN / ACC 2 LINE / COMMENTS	DESCRIPTION	REPLCD ID	SIZE	SYSTEM / ELEV / GRID	AREA / ROOM	BUILD / ERATE	SCAFF / INSUL	NOM WALL / MIN WALL / EWRNUM / EXM SCH	LINE / ISI ISO / MEAS MIN / OUT DTE	MAP NO. / ACTIVITY NO	WA NO
SPGAD1382-E2 BYPASS STEAM LINE DRN FO-10108 Z1-TEMP	ORIFICE	X-92	1	BPS 689 15'N19-13'EG	2 T-113	TB 16.86	9 B	.250 .167 X-RI08	SP-GAD-138-2 D.45 RESP95	K157 K0157-01	P43660
SPGAD1443-E12 MAIN STEAM AFTER CV DRAINS	ELBOW	X-124	2	TURB 678 4'N18-4'EHB	2 T-128	TB 26.95	0 B	.344 .229 X-RI08	SP-GAD-144-3 D.57 RESP95	K-601 K0601-01	P43767
SPGBD1041-E1 FWH 5C VENT	90 ELBOW	X-182	3	FW 703 5'N23-2'ELA	11 T-212	TB 20.00	0 B	.300 .200 X-RI08	SPGBD-104-1 D.84 RESP95	K-602 K0602-01	P43768
SPGBD1042-E1 FWH 5A VENT HAND GRID	90 BEND	X-181	2	FW 704 4'N15-12'WM	9 T-215	TB 49.56	0 B	.344 .229 X-RI08	SPGBD-104-2 D.83 RESP95	K158 K0158-01	P43661
SPGBD1254-E1 AUX SEAL STEAM SUPPLY DRAIN HAND GRID INCLUDE BEND W/VALVE	VALVE	X-206	1	MCPR 733 2'N15-1'WL	9 T-416	TB 73.80	0 B	.250 .166 M59207 X-RI08	SP-GBD-125-4 D.99 RESP95	K170 K0170-01	P43598
SPGBD1281-E1 SIS: X-675, 676	ORIFICE	X-674	2	FW 710 2'S15-8'WM	9 T-215	TB 13.91	8 B	.344 .229 X-RI08	SP-GBD-128-1 D.194 RESP95	K-160 K0160-01	P43662
SPGBD1282-E1 SIS: X-674, 675	ORIFICE	X-676	2	FW 706 9'N24-6'WM	11 T-212	TB 27.82	0 B	.344 .229 X-RI08	SP-GBD-128-2 D.196 RESP95	K-603 K0603-01	P43769

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COMPONENT ID / DETAIL PLAN / ACC 2 LINE / COMMENTS	DESCRIPTION	REPLCD ID	SIZE	SYSTEM / ELEV / GRID	AREA / ROOM	BUILD / ERATE	SCAFF / INSUL	NOM WALL / MIN WALL / EWRNUM / EXM SCH	LINE / ISI ISO / MEAS MIN / OUT DTE	MAP NO. / ACTIVITY NO	WA NO
SPGBD1287-E1 SIS: X-674, 676	ORIFICE	X-675	2	FW 706 9'S18-6'WM	10 T-214	TB 19.13	0 B	.344 .229 X-RI08	SP-GBD-128-7 D.195 RESP95	K-604 K0604-01	P43770
SPGBD13318-E1 RFPT A LP BELOW SEAT	ELBOW DRAINS	X-132	1	RFPT 682 7'S19-10'EK	10 T-116	TB 31.32	0 B	.250 .167 X-RI08	SPGBD-133-18 D.61 RESP95	K-181 K0181-01	P43603
SPGBD13319-E1 A RFPT CHEST DRAIN HAND GRID	90 ELBOW	X-212	.75	RFPT 681 2'S19-9'EK	10 T-116	TB 31.08	0 B	.219 .145 X-RI08	SPGBD-133-19 D.105 RESP95	K182 K0182-01	P43604
SPGBD13321-E1 C RFPT CHEST DRAIN HAND GRID	90 ELBOW	X-214	.75	RFPT 681 1'N23-8'EK	11 T-114	TB 31.08	0 B	.219 .145 X-RI08	SPGBD-133-21 D.107 RESP95	K183 K0183-01	P43605
SPGBD13322-E1 B RFPT CHEST DRAIN HAND GRID	90 ELBOW	X-213	.75	RFPT 681 0'S21-9'EK	11 T-115	TB 9.45	0 B	.219 .145 X-RI08	SPGBD-133-22 D.106 RESP95	K184 K0184-01	P43606
SPGBD1339-E1 B RFPT LP BEFORE SEAT	90ELBOW DRAIN	X-210	1	RFPT 682 6'S21-10'EK	11 T-115	TB 26.5	0 B	.250 .167 X-RI08	SP-GBD-133-9 D.103 RESP95	K-605 K0605-01	P43771
SPGBD1441-E1 MSV BEFORE SEAT DRAINS	ELBOW	X-121	2	TURB 671 9'N19-0'WJC	6 T-36	TB 27.82	12 B	.344 .229 X-RI08	SP-GBD-144-1 D.56 RESP95	K-606 K0606-01	P43772

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COMPONENT ID / DESCRIPTION / REPLCD ID	SIZE	SYSTEM / AREA / BUILD / SCAFF	NOM WALL / LINE	MAP NO. / WA NO
DETAIL PLAN		ELEV / ROOM / ERATE / INSUL	MIN WALL / ISI ISO	
ACC 2 LINE		GRID	EWRNUM / MEAS MIN	ACTIVITY NO
COMMENTS			EXM SCH / OUT DTE	
SPGBD1442-E4 / VALVE / X-120	1	TURB / 6 / TB / 4	.250 / SP-GBD-144-2	K607 / P43773
MSV A BEFORE SEAT DR / HV-10101A-D		706 / T-211 / 26.5 / B	.167 / D.56	
		12'N17-17'WK		K0607-01
			X-RIO8 / RESP95	
SPGBD1521-E1 / ELBOW / X-130	1	RFPT / 7 / TB / 10	.250 / SP-GBD-152-1	K-608 / P43774
MAIN STEAM TO RFPT DRAINS		670 / T-36 / 31.32 / B	.167 / D.28	
		7'N23-7'EJ		K0608-01
			X-RIO8 / RESP95	
SPGBD1521-E3 / BEND / X-43	1	RFPT / 11 / TB / 0	.250 / SP-GBD-152-1	K185 / P43607
RFPT C MN STM DRAIN		679 / T-114 / 20.48 / B	.167 / D.28	
HAND GRID		9'N23-11'EK		K0185-01
			X-RIO8 / RESP95	
SPGFD1026-E2 / VALVE / X-106	1.5	RFPT / 7 / TB / 0	.281 / SP-GFD-102-6	K-187 / P43608
XAROUND STM RFPT HDR / DR 1-27-005		682 / T-113 / 27.65 / B	.187 / D.25	
		1'N22-3'WK		K0187-01
			X-RIO8 / RESP95	
SPHAD10731-E1 / 90 ELBOW / X-39	2	RFPT / 11 / TB / 0	.218 / SPHAD-1073-1	K174 / P43601
RFPT B XAROUND STEAM / DRAIN		680 / T-115 / 24.5 / B	.145 / D.25	
Z1-HAND GRID		9'S21-2'EK		K0174-01
			X-RIO8 / RESP95	
SPHAD10731-E2 / ELBOW / X-41	2	RFPT / 7 / TB / 13	.218 / SPHAD-1073-1	K-609 / P43775
RFPT XAROUND HDR DRAIN		673 / T-36 / 19.17 / B	.145 / D.25	
		3'N22-3'WK		K0609-01
			X-RIO8 / RESP95	
SPHAD1691-E2 / 90 ELBOW / X-119	1	TS / 2 / TB / 0	.179 / SP-HAD-169-1	K175 / P43602
SSE-BLOWDOWN HV-10761		681 / T-113 / 35 / B	.119 / D.55	
HAND GRID		2'S18-3'WHB		K0175-01
			X-RIO8 / RESP95	

UNIT 1-8RIO -- EROSION/CORROSION EXAMS -- REPORT 2
(SORTED BY PRIORITY)

REPORT DATE: 06/28/95

COMPONENT ID / DETAIL PLAN / ACC 2 LINE / COMMENTS	DESCRIPTION	REPLCD ID	SIZE	SYSTEM / ELEV / GRID	AREA / ROOM	BUILD / ERATE	SCAFF / INSUL	NOM WALL / MIN WALL / EWRNUM / EXM SCH	LINE / ISI ISO / MEAS MIN / OUT DTE	MAP NO. / ACTIVITY NO	WA NO
SPHBD10051-E1 STEAM SEAL HEADER DRAIN	ELBOW	X-161	1	TS 703 9'N19-5'EHE	6 T-211	TB 16.16	2 B	.179 .119 X-RIO8	SPHBD-1005-1 D.77 RESP95	K-610 K0610-01	P43776
SPHBD10051-E2 STEAM SEAL HEADER DRN FO-10722	ORIFICE	X-160	1	TS 706 10'N18-3'EHE	6 T-211	TB 16.66	5 B	.179 .119 X-RIO8	SPHBD-1005-1 D.77 RESP95	K-611 K0611-01	P43777
SPHBD10721-E1 RFPT C XAROUND DRAIN Z1-TEMP	90 ELBOW	X-40	2	RFPT 680 8'S23-2'EK	7 T-114	TB 35.61	0 B	.218 .145 X-RIO8	SPHBD-1072-1 D.26 RESP95	K190 K0190-01	P43609
SPHBD10851-E2A C RFPT 1ST STAGE DRAIN	REDUCER	X-215A	1.5	RFPT 669 8'S22-12'WK	7 T-36	TB 0.0	11 B	.200 .133 X-RIO8	SPHBD-1085-1 D.108 RESP95	K-612 K0612-01	P43778
SPHBD10851-E2B C RFPT 1ST STAGE DRAIN	REDUCER	X-215B	1.25	RFPT 669 8'S22-12'WK	7 T-36	TB 0.0	11 B	.191 .127 X-RIO8	SPHBD-1085-1 D.108 RESP95	K-612 K0612-01	P43778
SPHBD1091-E1 EXTRACTION 3A DRAIN	90 ELBOW	X-204	2	EXTST 706 2'N19-8'EHE	6 T-211	TB 24.65	7 B	.218 .190 X-RIO8	SP-HBD-109-1 D.97 RESP95	K-613 K0613-01	P43779
SPHBD1091-E2 EXTRACTION 3A DRAIN HV-10203A Z1-TEMP	VALVE	X-203	2	EXTST 706 1'S18-8'EHE	6 T-211	TB 39.72	4 B	.218 .145 X-RIO8	SP-HBD-109-1 D.97 RESP95	K161 K0161-01	P43663

UNIT 1-8RIO -- EROSION/CORROSION EXAMS -- REPORT 2
(SORTED BY PRIORITY)

REPORT DATE: 06/28/95

COMPONENT ID / DETAIL PLAN / ACC 2 LINE / COMMENTS	DESCRIPTION	REPLCD ID	SIZE	SYSTEM / ELEV / GRID	AREA / ROOM	BUILD / ERATE	SCAFF / INSUL	NOM WALL / MIN WALL / EWRNUM / EXM SCH	LINE / ISI ISO / MEAS MIN / OUT DTE	MAP NO. / ACTIVITY NO	WA NO
SPHBD1092-E1 EXTRACTION 3C DRAIN	90 ELBOW	X-205	2	EXTST 701 4'N23-2'WHE	7 T-211	TB 41.09	0 B	.218 .190 X-RI08	SP-HBD-109-2 D.98 RESP95	K-614 K0614-01	P43780
SPHBD1104-E2 EXTRACTION 4C DRAIN Z1-TEMP	90 ELBOW	X-198	2	EXTST 708 9'N23-10'EHE	7 T-211	TB 26.03	5 B	.218 .145 X-RI08	SP-HBD-110-4 D.92 RESP95	K165 K0165-01	P43664
SPHBD1105-E2 EXTR 4C DRAIN (18C) Z1-TEMP	90 ELBOW	X-28	2	EXTST 708 9'N24-4'WK	7 T-211	TB 30.13	5 B	.218 .145 X-RI08	SP-HBD-110-5 D.14 RESP95	K166 K0166-01	P43665
SPHBD1107-E1 EXTRACTION 4B DRAIN Z1, Z3 TEMP	90 ELBOW	X-200	2	EXTST 710 6'N19-4'WK	6 T-211	TB 35.62	6 B	.218 .145 X-RI08	SP-HBD-110-7 D.94 RESP95	K167 K0167-01	P43666
SPHBD1108-E2 EXTR 4B DRAIN (05B) Z1-TEMP	90 ELBOW	X-27	2	EXTST 714 7'N21-10'EHE	7 T-211	TB 89.04	12 B	.218 .145 M59222 X-RI08	SP-HBD-110-8 D.13 RESP95	K168 K0168-01	P43597
SPHBD1185-E1 SIS: NONE	ORIFICE	X-611	1	RFPT 686 8'S15-10'WK	5 T-113	TB 15.00	8 B	.179 .119 X-RI08	SP-HBD-118-5 D.161 RESP95	K-615 K0615-01	P43781
SPHBD1391-E1 RFP DISCHARGE RELIEF	VALVE VALVES	X-216	1	FW 670 7'N21-4'EGA	3 T-36	TB 0.0	11 B	.179 .119 X-RI08	SP-HBD-139-1 D.109 RESP95	K-616 K0616-01	P43782

UNIT 1-8RIO -- EROSION/CORROSION EXAMS -- REPORT 2
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REPORT DATE: 06/28/95

COMPONENT ID / DETAIL PLAN / ACC 2 LINE / COMMENTS	DESCRIPTION	REPLCD ID	SIZE	SYSTEM / ELEV / GRID	AREA / ROOM	BUILD / ERATE	SCAFF / INSUL	NOM WALL / MIN WALL / EWRNUM / EXM SCH	LINE / ISI ISO / MEAS MIN / OUT DTE	MAP NO. / ACTIVITY NO	WA NO
SPHBD1481-E1 MAIN STEAM TO SJAE DRN HAND GRID	BEND	X-102	1	MCPR 680 4'N18-5'WHB	2 T-113	TB 33.35	0 B	.179 .119 X-RI08	SP-HBD-148-1 D.49 RESP95	K171 K0171-01	P43599
SPHBD1483-E1 MAIN STEAM TO SJAE DRN 1-07-054 HAND GRID OBS	VALVE	X-100	1	MCPR 681 4'N18-9'WHB	2 T-113	TB 26.6	0 B	.179 .119 X-RI08	SP-HBD-148-3 D.49 RESP95	K173 K0173-01	P43600
SPHBD1711-E1 SSE VENT AFTER HV-10728	VALVE	X-116	1	TS 686 10'N18-4'EHB	6 T-113	TB 31.67	7 B	.179 .119 X-RI08	SP-HBD-171-1 D.54 RESP95	K553 K0553-01	P43740
SPHBD1713-E1 SSE VENT AFTER FO-10728	ORIFICE	X-115	1	TS 729 6'N16-5'EL	9 T-416	TB 18.33	0 B	.179 .119 X-RI08	SP-HBD-171-3 D.54 RESP95	K554 K0554-01	P43741
SPHBD302310-E1 SIS: NONE HAND GRID	BEND	X-634	1.5	AUX BLR 669 4'S15-12'EL	9 T-52	TB 113.4	10 B	.200 .133 M59211 X-RI08	SPHBD3023-10 D.184 RESP95	K200 K0200-01	P43615
SPHBD302312-E1 SIS: NONE HAND GRID	90 ELBOW	X-635	.75	AUX BLR 672 4'S15-7'EK	9 T-52	TB 35.29	14 B	.154 .103 X-RI08	SPHBD3023-12 D.184 RESP95	K201 K0201-01	P43616
SPHBD302319-E1 SIS: NONE HAND GRID	90 ELBOW	X-632	1	AUX BLR 669 4'S40-14'WM	23 T-51	TB 25.0	10 B	.179 .119 X-RI08	SPHBD3023-19 D.183 RESP95	K202 K0202-01	P43617

UNIT 1-8RIO -- EROSION/CORROSION EXAMS -- REPORT 2
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COMPONENT ID / DETAIL PLAN / ACC 2 LINE / COMMENTS	DESCRIPTION	REPLCD ID	SIZE	SYSTEM / ELEV / GRID	AREA / ROOM	BUILD / ERATE	SCAFF / INSUL	NOM WALL / MIN WALL / EWRNUM / EXM SCH	LINE / ISI ISO / MEAS MIN / OUT DTE	MAP NO. / ACTIVITY NO	WA NO
SPHBD30234-E1 SIS: NONE HAND GRID	90 ELBOW	X-636	1.5	AUX BLR 669 3'N14-2'WJB	5 T-44	TB 35.82	10 B	.200 .133 X-RIO8	SPHBD3023-4 D.184 RESP95	K197 K0197-01	P43612
SPHBD30234-E2 SIS: NONE HAND GRID	BEND	X-637	1.5	AUX BLR 711 10'N15-3'WJB	5 T-217	TB 47.46	8 B	.200 .133 M59212 X-RIO8	SPHBD3023-4 D.184 RESP95	K198 K0198-01	P43613
SPHBD30234-E3 SIS: NONE HAND GRID	90 ELBOW	X-638	1.5	AUX BLR 711 4'S14-6'WJB	5 T-217	TB 53.73	8 B	.200 .133 M59205 X-RIO8	SPHBD3023-4 D.184 RESP95	K199 K0199-01	P43614
SPHCD1041-E4 SIS: X-624	VALVE	X-622	1	CRD 661 5'S24-0'@KC	11 T-52	TB 27.27	0 B	.133 .089 X-RIO8	SP-HCD-104-1 D.133 RESP95	K-617 K0617-01	P43783
SSH-E3A SSE OUTLET	REDUCER	X-187A	12	TS 741 6'N15-1'EL	9 T-416	TB 36.76	8 B	.406 .270 X-RIO8	SSH D.87 RESP95	K-593 K0593-01	P43701
SSH-E3B SSE OUTLET	REDUCER	X-187B	8	TS 741 6'N15-1'EL	9 T-416	TB 0.0	8 B	.322 .214 X-RIO8	SSH D.87 RESP95	K-593 K0593-01	P43701
VNBB211-E1 MS LINE C Z1 & Z2-HAND GRID	90 ELBOW	X-459	26	MS 787 252 AZ-19-RCL	26 R-516	RB 40.75	15 M	1.138 .893 X-RIO8	VNBB-211-1 D.81 RESP95	K148 K0148-01	P43656

UNIT 1-8RIO -- EROSION/CORROSION EXAMS -- REPORT 2
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REPORT DATE: 06/28/95

COMPONENT ID / DETAIL PLAN / ACC 2 LINE / COMMENTS	DESCRIPTION	REPLCD ID	SIZE	SYSTEM / ELEV / GRID	AREA / ROOM	BUILD / ERATE	SCAFF / INSUL	NOM WALL / MIN WALL / EWRNUM / EXM SCH	LINE / ISI ISO / MEAS MIN / OUT DTE	MAP NO. / ACTIVITY NO	WA NO
VNBB211-E3 SIS: X-174, 460, 462 Z1, Z2 TEMP	45 ELBOW	X-460	26	MS 750 288AZ-26RCL	26 R-516	RB 33.20	10 M	1.138 .893 X-RIO8	VNBB211-1 D.150 RESP95	K149 K0149-01	P43657
VNBB212-E3 SIS: X-174, 460, 464 EXISTING GRID	90 ELBOW	X-462	26	MS 741 108AZ-28RCL	26 R-516	RB 21.13	0 M	1.138 .893 X-RIO8	VNBB212-1 D.149 RESP95	K151 K0151-01	P43658
1SCVL-E12	ELBOW	X-173	1.5	TS 716 6'N18-6'WJC	6 T-211	TB 32.83	14 B	.200 .133 X-RIO8	1SCVL D.41 RESP95	K-557 K0557-01	P43668
1SLCIV-E19 CIV-CSV STEAM LEAKOFF HNAD GRID	ELBOW	X-98	1.5	TS 743 2'S19-8'EJ	6 T-420	TB 28.35	12 B	.200 .133 X-RIO8	1SLCIV D.48 RESP95	K559 K0559-01	P43670
1SLCIV-E2 SIS: X-403, 405, 407, 568, 570	ELBOW	X-572	2	TS 729 1'S23-21'EG	7 T-419	TB 29.85	0 B	.200 .133 X-RIO8	1SLCIV D.48 RESP95	K-558 K0558-01	P43669
1SSH7-E3 SSE SUPPLY HEADER	90 ELBOW	X-189	5	TS 731 1'S22-14'EHB	7 T-420	TB 6.97	21 B	.258 .172 X-RIO8	1SSH-7 D.88 RESP95	K-560 K0560-01	P43671
1SSH8-E25A SSE SUPPLY HEADER	REDUCER	X-188A	8	TS 723 4'N22-0'JB	7 T-211	TB 0.0	21 B	.280 .186 X-RIO8	1SSH-8 D.88 RESP95	K-561 K0561-01	P43672

UNIT 1-8RIO -- EROSION/CORROSION EXAMS -- REPORT 2
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COMPONENT ID / DETAIL PLAN / ACC 2 LINE / COMMENTS	DESCRIPTION	REPLCD ID	SIZE	SYSTEM / ELEV / GRID	AREA / ROOM	BUILD / ERATE	SCAFF / INSUL	NOM WALL / MIN WALL / EWRNUM / EXM SCH	LINE / ISI ISO / MEAS MIN / OUT DTE	MAP NO. / ACTIVITY NO	WA NO
1SSH8-E25B SSE SUPPLY HEADER	REDUCER	X188B	5	TS 723 4'N22-0'JB	7 T-211	TB 11.62	21 B	.258 .172 X-RIO8	1SSH-8 D.88 RESP95	K-561 K0561-01	P43672
2SCVL-E13 CV LP STEAM LEAKOFF HAND GRID	90 ELBOW	X-90	1.5	TS 715 6'N19-4'EJC	6 T-211	TB 35.82	12 B	.200 .133 X-RIO8	2SCVL D.41 RESP95	K194 K0194-01	P43610
2SLMSV-E22 MSV SEALING STEAM	ELBOW	X-86	1	TS 711 8'N18-1'EJC	6 T-211	TB 28.33	9 B	.179 .119 X-RIO8	2SLMSV D.41 RESP95	K-562 K0562-01	P43673
3SCVL-E14 CV SEALING STEAM HAND GRID	BEND	X-91	.5	TS 716 3'S17-4'EJC	6 T-211	TB 27.65	12 B	.147 .100 X-RIO8	3SCVL D.41 RESP95	K195 K0195-01	P43611

TOTAL EXAMS: 179

ECRPT2

NUREG-0313 CATEGORY C WELDS FOR MSIP

MSIP WELD LISTING
UNIT 1

Weld #	Weld Identification	Size	Description	Out age	Area	Room	Elev	C1103 System		WA Number
1	DBB-107-1-1-B	24	RHR Div I Inj Bet F015A & F017A (E-P)	8	29	202	710	RHR	I	S43957
2	DBB-107-2-1-A	24	RHR Div II Inj Bet F015B & F017B (P-E)	8	28	202	711	RHR	II	S43956
3	DBB-107-2-1-D	24	RHR Div II Inj Bet F015B & F017B (E-P)	7	28	202	711	RHR	II	
4	DCA-108-1-FW-12	20	Com SDC Suct at F008 (V-E)	7	28	203	710	SDC	Com	
5	DCA-110-1-FW-1	24	RHR Div I Inj at F015A (P-V)	8	29	202	710	RHR	I	S43955
6	DCA-110-2-FW-1	24	RHR Div II Inj at F015B (P-V)	7	28	202	710	RHR	II	
7	DCB-102-1-FW-1	6	Head Spray Upstrm of F023 (P-V)	8	29	202	711	RHR	I	S43954
8	DCB-102-1-FW-2	6	Head Spray Dnstrm of F023 (V-FH)	7	29	202	711	RHR	I	
9	DCB-102-1-FW-4	6	Head Spray Bet F022 & F023 (FH-E)	7	26	206	711	RHR	I	
10	GBB-117-1-1-C	6	Head Spray Bet F023 & HV15112 (E-P)	7	29	202	711	RHR	I	
11	HBB-111-1-1-A	20	Com SDC Suct DNSTRM of F008 (E-RED)	7	28	202	711	SDC	Com	
12	N1A NOZ-SE	28	"A" Recirc Pump Suct (NOZ-SE)	7	26	516-1	746	RHR	I	
13	N1B NOZ-SE	28	"B" Recirc Pump Suct (NOZ-SE)	8	26	516-1	746	SDC	Com	S43947
14	N2A NOZ-SE	12	Recirc Pump Riser (SE-NOZ)	7	26	516-1	745	RHR	II	
15	N2B NOZ-SE	12	Recirc Pump Riser (SE-NOZ)	8	26	516-1	745	RHR	II	S43948
16	N2C NOZ-SE	12	Recirc Pump Riser (SE-NOZ)	8	26	516-1	745	RHR	II	S43949
17	N2D NOZ-SE	12	Recirc Pump Riser (SE-NOZ)	8	26	516-1	745	RHR	II	S43950
18	N2E NOZ-SE	12	Recirc Pump Riser (SE-NOZ)	8	26	516-1	745	RHR	II	S43951
19	N2F NOZ-SE	12	Recirc Pump Riser (SE-NOZ)	7	26	516-1	745	RHR	I	

MSIP WELD LISTING
UNIT 1

Weld #	Weld Identification	Size	Description	Out age	Area	Room	Elev	C1103 System		WA Number
20	N2G NOZ-SE	12	Recirc Pump Riser (SE-NOZ)	8	26	516-1	745	RHR	I	S43952
21	N2H NOZ-SE	12	Recirc Pump Riser (SE-NOZ)	8	26	516-1	745	RHR	I	S43953
22	N2J NOZ-SE	12	Recirc Pump Riser (SE-NOZ)	7	26	516-1	745	RHR	I	
23	N2K NOZ-SE	12	Recirc Pump Riser (SE-NOZ)	7	26	516-1	745	RHR	I	
24	N5A NOZ-SE	10	CS DIV II Inj Nozzle (SE-NOZ)	8	26	516-3	772	CS	Non	S43958
25	N5A NOZ-SEXT	10	CS DIV II Inj Nozzle (Sext-SE)	8	26	516-3	772	CS	Non	S43959
26	N5B NOZ-SE	10	CS DIV I Inj Nozzle (SE-NOZ)	8	26	516-3	772	CS	Non	S43960
27	N5B NOZ-SEXT	10	CS DIV I Inj Nozzle (Sext-SE)	8	26	516-3	772	CS	Non	S43961
28	N8A NOZ-SE	4.5	Cal Jet Pump Inst Line (NOZ-SE)	8	26	516-1	745	NB	Non	S43962
29	N8A NOZ-PEN SEAL	4	Cal Jet Pump Inst Line (SE-Pen Seal)	8	26	516-1	745	NB	Non	S43963
30	N8B NOZ-SE	4.5	Cal Jet Pump Inst Line (NOZ-SE)	8	26	516-1	745	NB	Non	S43964
31	N8B NOZ-PEN SEAL	4	Cal Jet Pump Inst Line (SE-Pen Seal)	8	26	516-1	745	NB	Non	S43965
32	N9 NOZ-CAP	4	CRD to RPV Return (NOZ-CP)	7	26	516-3	770	CRD	Non	