

INSERVICE INSPECTION SUMMARY REPORT
FOR REFUEL OUTAGE #8 AT
PILGRIM NUCLEAR POWER STATION
UNIT #1

Prepared by *Patricia P. Pudee* Date *10-17-91*
Reviewed by *V. Schifano* Date *10-17-91*
Approved by *Levin Kalanick* ^{*for PDR*} Date *10-18-91*

BOSTON EDISON COMPANY
October 17, 1991

INSERVICE INSPECTION SUMMARY REPORT
FOR REFUEL OUTAGE #8 AT
PILGRIM NUCLEAR POWER STATION

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INSERVICE INSPECTION SUMMARY REPORT
FOR REFUEL OUTAGE #8 AT PILGRIM NUCLEAR POWER STATION

1.0 Executive Summary

This report documents the Inservice (ISI) and Preservice (PSI) examinations and related activities performed at Pilgrim Nuclear Power Station (PNPS) from the end of Refuel Outage #7 through Refuel Outage #8. These examinations are part of the 2nd period of the 2nd ten year inspection interval and include examinations performed during the 1990 Mid Cycle Maintenance Outage.

Examinations performed were:

- A. Ultrasonic and visual examination of Salt Service Water piping per Generic Letter 89-13 including remote visual examination of buried piping.
- B. Ultrasonic examination for erosion/corrosion of high energy piping per Generic Letter 89-03.
- C. Ultrasonic examination for Intergranular Stress Corrosion Cracking (IGSCC) in accordance with Generic Letter 88-01.
- D. ASME XI inservice and preservice weld surface and volumetric examinations and pipe support visual examinations.
- E. Examination of Feedwater nozzles in accordance with NUREG 0619.
- F. In-vessel visual examination.
- G. Examination of reactor vessel shroud support access hole covers.
- H. Examination of Drywell annulus air gap drain lines.

Examinations:

Examinations were conducted in accordance with ASME Section XI, 1980 Winter 1980 Addenda and BECo Letters 90.026, 91.048 and 91.058. Examinations were performed by:

- A. Universal Testing Laboratory for remote visual examination of buried SSW piping.
- B. General Electric and Boston Edison personnel for ISI and PSI examinations during RFO #8 in 1991.
- C. Stone and Webster and Boston Edison for ISI examinations during the 1990 Mid-Cycle Maintenance Outage.

Regarding BECo Letter 90.026, Inservice Inspection Plan for the 1990 Mid-Cycle Spring Outage for PNPS:

All welds were completed during the 1990 Mid-Cycle Outage or in RFO #8, except for weld HL-10-F73. Weld DB-23-F4 could only be partially examined due to space restrictions and will be re-evaluated during RFO #9. Weld HL-10-F73 has been rescheduled for RFO #9 examination.

Pipe support visual examinations conducted during the 1990 Mid-Cycle outage included 56 of 59 scheduled exams. The remaining three exams were performed during RFO #8 in 1991.

Regarding BECo Letter 91.048, Revised Inspection Program for Drywell Liner Air Gap Drain Lines:

The Drywell liner annulus air gap drain lines were examined with the refueling cavity flooded before and after refueling. The initial examination reported evidence of leakage (F&MR 91-157). The final examination reported no leakage (IRS 91-160).

Regarding BECo Letter 91.058, Inservice Inspections Planned for Refueling Outage #8 at PNPS:

All examinations listed in Enclosure A of BECo Letter 91.058 were completed with the following exceptions:

- The inner radius and nozzle-to-vessel welds were not examined for the Recirculation System N1 and N2 nozzles. These examinations were postponed due to the relatively large exposure associated with disassembly and reassembly of the shield blocks. Completion of the examinations during RFO #8 was not necessary for Boston Edison to satisfy the completion levels specified in ASME XI Subsection IWB-2412. A less labor-intensive shielding method has been committed to for future application.
- Integral Attachment EB-23-37HL1(4) - does not exist.
- Weld GB-10-F12 was not examined due to pipe support interference; Weld GB-10-F273 was substituted.
- Weld 12-I-18, also a GL 88-01 weld, was found to be inaccessible for examination.

All pipe support visual examinations of Enclosure A (Letter 91.058) were completed during RFO #8 or the 1990 Mid-Cycle Outage.

All pipe support visual examinations of Enclosure B (Letter 91-058) were performed during RFO #8 with 6 exceptions:

H-3-1-22	H-14-1-43
H-3-1-42	H-10-1-61SA
H-14-1-42	H-29-1-1065

Note: Enclosure B items were optional.

All weld examinations of Enclosure B (Letter 91.058) were completed with the following exceptions:

14-A-4	14-B-5	GB-10-F164
14-A-5	14-B-7	HL-10-F76
14-A-7	14-B-8	HL-10-F73
14-B-4	14-B-9	

All weld examinations of Enclosure C (Letter 91.058) were completed except the before mentioned 12-I-18 weld.

All weld examinations of Enclosure E (Letter 91.058) were completed, but weld EA/DC-11 was substituted for EA12-3 due to accessibility.

Results:

All unacceptable conditions were reported by Nonconformance Reports (NCRs). The following is a list of findings.

1. One safety-related and three non-safety-related welds were found to exhibit indications consistent with IGSCC (NCR 91-081; NCR 91-079) in the Reactor Water Cleanup system. The welds were removed as part of a pipe replacement and the examination scope was expanded to include remaining susceptible (Category D) welds in the safety-related portion of the system. Preservice examinations were performed on 9 safety-related RWCU replacement welds (Ref. Section 7.0) and 3 RHR welds installed per PDC 90-66: HL-10-F157A, HL-10-F157B and HL-10-9-2DR.
2. Weld DB/DC-14-3001-4-1 in the Core Spray system had a liquid penetrant indication (NCR 91-115). This indication was removed with minor surface preparation and was not classified as a defect.
3. The 56 pipe support visual examinations conducted during the 1990 Mid-Cycle outage (Ref. Section 4.0) caused 12 Nonconformance Reports to be generated. One Nonconformance Report (90-52) was considered to be a service-related defect. NCR 90-52 documented a structural weld crack on the anchor support at Main Steam penetration X7B which was repaired by welding. Subsequent scope expansion visual examinations were completed on 4 supports. No additional inservice defects were found.
4. Pipe support visual examinations performed during RFO #8 in 1991 (Ref. Section 7.0) included 145 scheduled examinations. Inspection personnel generated 67 NCRs as a result of the examinations. Eleven NCRs documented service-related defects that required rework. Inspection scope was expanded accordingly to include 63 additional exams in the Core Spray, Residual Heat Removal and Salt Service Water systems. The 11 service-related NCRs on supports are listed in Table 1.
5. Preservice visual examinations were performed on 48 pipe supports during RFO #8. The examinations are listed in Table 2. Miscellaneous visual examinations performed since the end of RFO #7 are listed in Table 3.

6. Ultrasonic thickness measurements for erosion/corrosion of high energy piping resulted in five Nonconformance Reports; NCR 91-046, 91-047, 91-048, 91-102, 91-174 and 91-185. Analysis of the inspection results initiated a large scale modification with 900 feet of more resistant pipe material installed. Additionally, modification/replacement was performed on 6 nozzles and 2 valve station headers.
7. A portion of the Salt Service Water System was examined in response to Generic Letter 89-13 by ultrasonics for wall thickness and visual methods for liner integrity. Nonconformance Reports and Failure and Malfunction Reports resulting from these examinations are:

NCR 91-35
NCR 91-62
NCR 91-67
NCR 91-76

NCR 91-84
NCR 91-131
F&MR 91-132
F&MR 91-191

The examinations resulted in fourteen spool replacements and five repairs to the liner.

LIST OF ACRONYMS

<u>ACRONYM</u>	<u>DESCRIPTION</u>	<u>SYSTEM NO.</u>
CACS	Containment Atmosphere Control	9
CRD	Control Rod Drive	3
CS	Core Spray	14
FW	Feedwater	6
HPCI	High Pressure Coolant Injection	23
MS	Main Steam	1
RBCCW	Reactor Building Closed Cooling Water	30
RCIC	Reactor Core Isolation Cooling	13
RECIRC	Reactor Recirculation	2
RHR	Residual Heat Removal	10
RPV	Reactor Pressure Vessel	54
SBLC	Standby Liquid Control	11
SSW	Salt Service Water	29
MT	Macro Particle Examination	
UT	Ultrasonic Examination	
VT	Visual Examination	
ES	Extraction Steam	16
MSD	Moisture Separator Drains	1
HD	Heater Drains	17

SECTION 2.0

TABLES

TABLE 1

RFO #8 Inservice-Related Nonconformances for Pipe Supports

<u>NCB</u>	<u>Component</u>	<u>Condition</u>
91-057	H-29-1-36	Corrosion
91-061	H-10-1-43SH	Loose bolting, missing spacer
91-091	H-10-1-103S	Loose parts, misalignment
91-106	H-10-1-101S	Loose parts, not supporting load
91-107	H-10-1-102S	Loose parts, misalignment
91-108	H-14-1-10	Loose parts, not supporting load
91-110	H-10-1-81	Loose parts
91-135	H-10-1-14	Spring can bottomed out
91-136	H-10-1-38SR	Spherical bushing out of paddle
91-137	H-10-1-21SR	Spherical bushing out of paddle
91-138	H-10-1-16	Spring can bottomed out

TABLE 2

RFO #8 Preservice Pipe Support Visual Examinations

<u>PIPE SUPPORT</u>	<u>SYSTEM</u>	<u>SUPPORT TYPE</u>	<u>DATASHEET</u>
H-14-1-18S	CS	SNUBBER	VT-14-91020
H-6-1-SS-1	FW	SNUBBER	VT-6-91020
H-6-1-SS-10	FW	SNUBBER	VT-6-91017
H-6-1-SS-2	FW	SNUBBER	VT-6-91021
H-6-1-SS-3	FW	SNUBBER	VT-6-91C24
H-6-1-SS-4	FW	SNUBBER	VT-6-91019
H-6-1-SS-5	FW	SNUBBER	VT-6-91023
H-6-1-SS-6	FW	SNUBBER	VT-6-91011
H-6-1-SS-7	FW	SNUBBER	VT-6-91022
H-6-1-SS-8	FW	SNUBBER	VT-6-91016
H-6-1-SS-9	FW	SNUBBER	VT-6-91018
H-23-1-11SS	HPCI	SNUBBER	VT-23-91024
H-23-1-15SS	HPCI	SNUBBER	VT-23-91020
			VT-23-91031
H-23-1-17S	HPCI	SNUBBER	VT-23-91022
H-23-1-19S	HPCI	SNUBBER	VT-23-91025
H-23-1-20S	HPCI	SNUBBER	VT-23-91023
H-23-1-SS13	HPCI	SNUBBER	VT-23-91021
H-1-1-SA2	MS	SNUBBER	VT-1-91013
H-1-1-SB1	MS	SNUBBER	VT-1-91017
H-1-1-SB2	MS	SNUBBER	VT-1-91016
H-1-1-SC1	MS	SNUBBER	VT-1-91014
H-1-1-SC2	MS	SNUBBER	VT-1-91015
H-1-1-SD1	MS	SNUBBER	VT-1-91012
			VT-1-91023
H-30-1-SS12	RBCCW	SNUBBER	VT-30-91011
H-13-1-SS15	RCIC	SNUBBER	VT-13-91003
H-2-1-SS1	RECIRC	SNUBBER	VT-2-91018
H-2-1-SS11	RECIRC	SNUBBER	VT-2-91009
H-2-1-SS12	RECIRC	SNUBBER	VT-2-91012
H-2-1-SS13	RECIRC	SNUBBER	VT-2-91016
H-2-1-SS14	RECIRC	SNUBBER	VT-2-91019
H-2-1-SS15	RECIRC	SNUBBER	VT-2-91017
H-2-1-SS16	RECIRC	SNUBBER	VT-2-91014
H-2-1-SS20	RECIRC	SNUBBER	VT-2-91011
H-2-1-SS23	RECIRC	SNUBBER	VT-2-91010
H-2-1-SS24	RECIRC	SNUBBER	VT-2-91015
H-2-1-SS8	RECIRC	SNUBBER	VT-2-91013
H-10-1-112S	RHR	SNUBBER	VT-10-91117
H-10-1-SS17	RHR	SNUBBER	VT-10-91118
H-10-1-SS18	RHR	SNUBBER	VT-10-91116
H-10-1-SS19	RHR	SNUBBER	VT-10-91119
H-10-1-SS21	RHR	SNUBBER	VT-10-91120
H-10-1-SS23	RHR	SNUBBER	VT-10-91131
H-10-1-SS24	RHR	SNUBBER	VT-10-91121
H-29-1-1062	SSW	GUIDE	VT-29-91018
H-29-1-1063	SSW	GUIDE	VT-29-91019
H-29-1-105G	SSW	RESTRAINT	VT-29-91025
H-29-1-115G	SSW	GUIDE	VT-29-91027

TABLE 3

Miscellaneous Visual Examinations Performed Since RFO #7

<u>SYSTEM</u>	<u>COMPONENT</u>	<u>EXAM TYPE</u>	<u>DATE PERFORMED</u>	<u>DATA SHEET</u>
MS	SRV203-3A	VT-2	11-2-89	VT-1-89001
MS	SRV203-3B	VT-2	11-2-89	VT-1-89002
MS	SRV203-3C	VT-2	11-2-89	VT-1-89003
MS	SRV203-3D	VT-2	11-2-89	VT-1-89004
MS	RV203-4A	VT-2	11-2-89	VT-1-89005
MS	RV203-4B	VT-2	11-2-89	VT-1-89006
MS	SRV203-3A	VT-2	11-3-89	VT-1-89007
MS	SRV203-3C	VT-2	11-3-89	VT-1-89008
		VT-3	11-4-89	VT-1-89009
		VT-2	11-8-89	VT-1-89011
MS	SRV203-3A	VT-2	11-8-89	VT-1-89012
		VT-2	11-5-89	VT-1-89010
MS	SRV203-3B	VT-2	4-26-90	VT-1-90001
		VT-2	8-14-91	VT-1-91032
MS	SRV203-3C	VT-2	4-26-90	VT-1-90002
MS	RV203-4B	VT-2	4-26-90	VT-1-90003
		VT-2	8-14-91	VT-1-91033
FW	CK0601-62A	VT-2	4-26-90	VT-6-90006
FW	CK0601-58A	VT-2	4-26-90	VT-6-90007
FW	PIPING	VT-2	7-6-91	VT-6-91028
RHR	MO1001-50	VT-2	11-8-89	VT-10-89001
RHR	CK1001-6RB	VT-2	4-8-90	VT-10-90010
RHR	H-10-1-36SR	VT-3	9-7-90	VT-10-90015
RHR	MO1001-50	VT-2	9-22-90	VT-10-90016
		VT-2	9-24-90	VT-10-90017
RHR	MO1001-29B	VT-2	4-8-90	VT-10-90011
RHR	PIPING	VT-2	7-9-91	VT-10-91136
		VT-2	7-9-91	VT-10-91137
RWCU	INSTRUMENT LINES	VT-2	4-26-90	VT-12-90009
RCIC	CK130?-50	VT-2	4-24-89	VT-13-89003
		VT-2	8-14-91	VT-13-91004
		VT-2	9-22-90	VT-13-90016
RCIC	HO-13-105	VT-2	6-21-90	VT-13-90014
SBLC	PIPING	VT-2	4-9-90	VT-11-90011
		VT-2	4-9-90	VT-11-90012
		VT-2	4-9-90	VT-11-90013
		VT-2	4-9-90	VT-11-90014
HPCI	CK2301-7	VT-2	4-26-89	VT-23-89014
		VT-3	4-22-89	VT-23-89013
HPCI	MO2301-4	VT-2	8-14-91	VT-23-91030
RBCCW	HX.E-209B	VT-2	10-30-89	VT-30-89001
RECIRC	CK-2-125A/B	VT-2	4-26-90	VT-2-90001
SSW	P-208C BASEPLATE	VT-3	12-14-90	VT-29-90002
VARIOUS	CLASS 1 PRESSURE TEST	VT-2	7-21-91	VT-54-91001
VARIOUS	CLASS 1 PRESSURE TEST	VT-2	7-21-91	VT-54-91002
VARIOUS	CLASS 1 PRESSURE TEST	VT-2	7-21-91	VT-54-91003
VARIOUS	CLASS 1 PRESSURE TEST	VT-2	7-21-91	VT-54-91004
VARIOUS	CLASS 1 PRESSURE TEST	VT-2	7-21-91	VT-54-91005

TABLE 3

Miscellaneous Visual Examinations Performed Since RFO #7

<u>SYSTEM</u>	<u>COMPONENT</u>	<u>EXAM TYPE</u>	<u>DATE PERFORMED</u>	<u>DATA SHEET</u>
VARIOUS	CLASS 1 PRESSURE TEST	VT-2	7-21-91	VT-54-91006
VARIOUS	CLASS 1 PRESSURE TEST	VT-2	7-21-91	VT-54-91007
VARIOUS	CLASS 1 PRESSURE TEST	VT-2	7-21-91	VT-54-91008
VARIOUS	CLASS 1 PRESSURE TEST	VT-2	7-21-91	VT-54-91009
VARIOUS	CLASS 1 PRESSURE TEST	VT-2	7-21-91	VT-54-91010
VARIOUS	CLASS 1 PRESSURE TEST	VT-2	7-21-91	VT-54-91011
VARIOUS	CLASS 1 PRESSURE TEST	VT-2	7-21-91	VT-54-91012
VARIOUS	CLASS 1 PRESSURE TEST	VT-2	7-21-91	VT-54-91013
VARIOUS	CLASS 1 PRESSURE TEST	VT-2	7-21-91	VT-54-91014
VARIOUS	CLASS 1 PRESSURE TEST	VT-2	7-21-91	VT-54-91015
VARIOUS	CLASS 1 PRESSURE TEST	VT-2	7-21-91	VT-54-91016
VARIOUS	CLASS 1 PRESSURE TEST	VT-2	7-21-91	VT-54-91017
VARIOUS	CLASS 1 PRESSURE TEST	VT-2	7-21-91	VT-54-91018
VARIOUS	CLASS 1 PRESSURE TEST	VT-2	7-21-91	VT-54-91019

SECTION 3.0

NIS-1 AND NIS-2 FORMS

FOR ASME XI CODE

INSPECTIONS AND REPAIRS/REPLACEMENTS

FORM NIS-1 OWNERS' DATA REPORT FOR INSERVICE INSPECTIONS
 As required by the Provisions of the ASME Code Rules

1. Owner Boston Edison Company
(Name and Address of Owner)

2. Plant Pilgrim Nuclear Power Station, RFD #1, Rocky Hill Road,
(Name and Address of Plant) Plymouth, MA

3. Plant Unit #1 4. Owner Certificate of Authorisation (if required) N/A

5. Commercial Service Date 12-9-72 6. National Board Number for Unit 20763

7. Components Inspected

Component or Appurtenance	Manufacturer or Installer	Manufacturer or Installer Serial No.	State or Province No.	National Board No.
Reactor Vessel	Combustion Eng.	66107	66207	20763
Piping	Bechtel	N/A	N/A	N/A
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
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Note: Supplemental sheets in form of lists, sketches, or drawings may be used provided (1) size is 8 1/2 in. x 11 in., (2) information in items 1 through 6 on this data 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-1 (back)

8. Examination Dates 3-23-89 to 8-14-91 9. Inspection interval from 12-10-82 to 6-30-95

10. Abstract of Examinations. Include a list of examinations and a statement concerning status of work required for current interval. See ISI Summary Report

11. Abstract of Conditions Noted See ISI Summary Report

12. Abstract of Corrective Measures Recommended and Taken
See ISI Summary Report and NIS-2 Forms

We certify that the statements made in this report are correct and the examinations and corrective measures taken conform to the rules of the ASME Code, Section XI.

Date 10/11 19 91 Signed Boston Edison Owner By R. Schifano for FNE (owner)
QA MANAGER

Certificate of Authorization No. (if applicable) N/A Expiration Date ---

CERTIFICATE OF INSERVICE 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 MASS and employed by FACTORY MUTUAL of NORWOOD, MA have inspected the components described in this Owners' Data Report during the period 3-23-89 to 8-14-91 and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owners' Data 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 Owners' 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 10-16-1991

[Signature]
Inspector's Signature

Commission

MA 1420

National Board, State, Province 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 Boston Edison Company Date April 26, 1989
Name
800 Boylston Street, Boston, MA Sheet 1 of 1
Address
2. Plant Pilgrim Nuclear Power Station Unit #1
Name
Rocky Hill Road, Plymouth, MA 02360 N/A
Address Repair Organization P.O. No., Job No., etc.
3. Work Performed by Boston Edison Company Type Code Symbol Stamp N/A
Name Authorization No. N/A
Rocky Hill Road, Plymouth, MA 02360 Expiration Date N/A
Address
4. Identification of System RCIC Reactor Core Isolation Cooling
5. (a) Applicable Construction Code B31.1 19 68 Edition, -- Addenda, -- Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 80 - W80

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)
RCIC Pump Suction Pipe	N/A	N/A	N/A	N/A	N/A	Repair	No

7. Description of Work Repair of Base Metal in RCIC Suction Piping work performed to MR 89-13-33 and MR 89-13-43
8. Tests Conducted Hydrostatic Pneumatic Nominal Operating Pressure
 Other Pressure 112 psi Test Temp. 79 °F
RT and PT

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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 N/A
Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this Repair 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 William F. Familiari Date July 26 1989
Owner or Owner's Designer, Title QA Manager

CERTIFICATE 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 Massachusetts and employed by Factory Mutual Systems of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 4/21/89 to 4/26/89 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] Commission MA-1420
Inspector's Signature National Board, State, Province, and Endorsements

Date 7-26-89

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

1. Owner Boston Edison Company Date June 6, 1989
Name
800 Boylston Street, Boston, MA
Address Sheet 1 of 1
2. Plant Pilgrim Nuclear Power Station Unit #1
Name
Rocky Hill Road, Plymouth, MA 02360
Address N/A
Repair Organization P.O. No., Job No., etc.
3. Work Performed by Boston Edison Company Type Code Symbol Stamp N/A
Name Authorization No. N/A
Rocky Hill Road, Plymouth, MA 02360 Expiration Date N/A
Address
4. Identification of System Salt Service Water (SSW)
5. (a) Applicable Construction Code B31.1 19 68 Edition, -- -- Addenda, -- -- Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 80-W80
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)
SSW pump discharge check valve	Crane	604630-043	--	--	--	Replacement	No
29-CK-3880C							

7. Description of Work Replaced check valve disc, bolting, hinge pins and bushings per MR 88-29-94 and NCR 89-050.
8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
 Other Pressure 35 psi Test Temp. 52 °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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)

B. Remarks N/A
Applicable Manufacturer's Data Reports to be attached

CERTIFICATE 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 6/16 1989
Owner or Owner's Designee, Title QA Manager

CERTIFICATE 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 Massachusetts and employed by Factory Mutual of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period May 6, 1989 to June 6, 1989, 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] Commission MA 1420
Inspector's Signature National Board, State, Province, and Endorsements

Date 7-24-89

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

1. Owner Boston Edison Company Date 6/21/89
Name
800 Boylston Street, Boston, MA
Address Sheet 1 of 1
2. Plant Pilgrim Nuclear Power Station Unit #1
Name
Rocky Hill Road, Plymouth, MA
Address N/A
Repair Organization P.O. No., Job No., etc.
3. Work Performed by Boston Edison Company Type Code Symbol Stamp n/a
Name Authorization No. n/a
Rocky Hill Road, Plymouth, M
Address Expiration Date n/a
4. Identification of System Salt Service Water System
5. (a) Applicable Construction Code B31.1 19 68 Edition, -- Addenda, -- Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 ---

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)
Bolting for Valve 29-HO-3834	n/a	n/a	n/a	n/a	--	Replaced	No

7. Description of Work Replacement of pressure retaining bolting for SSW Backwash Drain Isolation Valve 29-HO-3834 per MWP 89-30-43-1.

8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
 Other Pressure -- psi Test Temp. -- °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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 N/A
 Applicable Manufacturer's Data Reports to be attached

CERTIFICATE 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 20 1989
Owner or Owner's Designee, Title QA Manager

CERTIFICATE 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 Massachusetts and employed by Factory Mutual of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period June 14, 1989 to June 15, 1989, 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 MA 1420
Inspector's Signature National Board, State, Province, and Endorsements

Date 7-27-89

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

1. Owner Boston Edison Company Date 7-19-1989
Name
800 Boylston Street, Boston, MA
Address Sheet 1 of 1
2. Plant Pilgrim Nuclear Power Station Unit #1
Name
Rocky Hill Road, Plymouth, MA
Address N/A
Repair Organization P.O. No., Job No., etc.
3. Work Performed by Boston Edison Company Type Code Symbol Stamp N/A
Name Authorization No. N/A
Rocky Hill Road, Plymouth, MA Expiration Date N/A
Address
4. Identification of System Salt Service Water
5. (a) Applicable Construction Code B31.1 19 68 Edition, " " Addenda, " " Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1980, W80
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)
SSW Valve 29-HO-3827	Pratt	N06439-601	N/A	71984	1986	Replacement	No
SSW Valve 29-HO-3828	Pratt	N06439-601	N/A	122785	1986	Replacement	No

7. Description of Work Replaced two 12"-150 lb. butterfly valves and pressure-retaining bolting per MR 89-29-40, MR 89-30-44, FRN 89-17-01 and FRN 89-17-08.

B. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
 Other Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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 Valves provide SSW flow and backwash capability to Turbine Building
Closed Cooling Water heat exchanger E-122A.

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE 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 William A. F.R. Famulari Date 7-26 19 89
Owner or Owner's Designee, This QA Manager

CERTIFICATE 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 Massachusetts and employed by Factory Mutual Corporation SYSTEM of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period July 19, 1989 to July 22, 1989, 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 MA #1420
Inspector's Signature National Board, State, Province, and Endorsements

Date 7-26-89

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

1. Owner Boston Edison Company Date 8-4-89
Name
800 Boylston Street, Boston, MA
Address
2. Plant Pilgrim Nuclear Power Station Unit #1
Name
Rocky Hill Road, Plymouth, MA 02360
Address N/A
Repair Organization P.O. No., Job No., etc.
3. Work Performed by Boston Edison Company Type Code Symbol Stamp N/A
Name Authorization No. N/A
Rocky Hill Road, Plymouth, MA 02360 Expiration Date N/A
Address
4. Identification of System Salt Service Water (SSW)
5. (a) Applicable Construction Code B31.1 19 68 Edition, -- Addenda -- Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 80, WBO

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)
Pressure-retaining bolting on SSW side of RBCCW heat exchanger E-209A	--	--	--	--	--	Replacement	No

7. Description of Work Replaced pressure-retaining bolting on SSW side of "A" loop RBCCW heat exchanger E-209A (both ends) per MR 89-30-50.
8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
 Other Pressure _____ psi Test Temp _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided: (1) size is 8 1/2 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 N/A
Applicable Manufacturer's Data Reports to be attached

CERTIFICATE 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 L. H. Lamulana Date 8/4 19 89
Owner or Owner's Designee, Title QA Manager

CERTIFICATE 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 Massachusetts and employed by Factory Mutual SYSTEM of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period July 20, 1989 to July 22, 1989, 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 MA #1420
Inspector's Signature National Board, State, Province, and Endorsements

Date 8-10-89

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

1. Owner Boston Edison Company Date NOV 1, 1989
Name
800 Boylston Street, Boston, MA
Address

2. Plant Pilgrim Nuclear Power Station Sheet 1 of 1
Name
Rocky Hill Road, Plymouth, MA
Address Unit #1
Repair Organization P.O. No., Job No., etc. N/A

3. Work Performed by Boston Edison Company Type Code Symbol Stamp N/A
Name Authorization No. N/A
Rocky Hill Road, Plymouth, MA Expiration Date N/A
Address

4. Identification of System Main Steam

5. (a) Applicable Construction Code B31.1 19 68 Edition, -- Addenda, -- Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 80, W80

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)
Bolting at Relief Valves RV 203-3A and RV 203-3C	--	--	--	--	--	Replaced	No

7. Description of Work Replaced one degraded bolt (damaged threads) "in-kind" on RV 203-3C per MR 89-1-120. Replaced one degraded bolt "in-kind" on RV 203-3A per MR 89-1-122.

8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
 Other Pressure 930 psi Test Temp. 525 °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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 N/A
Applicable Manufacturer's Data Reports to be attached

CERTIFICATE 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 Stephen L. Bibe Date Nov. 27, 1989
Owner or Owner's Designee, Title QA Manager

CERTIFICATE 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 Massachusetts and employed by Factory Mutual Company of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period October 14, 1989 to November 1, 1989, 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 MA #1420
Inspector's Signature National Board, State, Province, and Endorsements

Date Nov 27 1989

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

1. Owner Boston Edison Company Date Nov 1, 1989
Name
800 Boylston Street, Boston, MA
Address Sheet 1 of 1
2. Plant Pilgrim Nuclear Power Station Unit #1
Name
Rocky Hill Road, Plymouth, MA
Address N/A
Repair Organization P.O. No., Job No., etc.
3. Work Performed by Boston Edison Company Type Code Symbol Stamp N/A
Name Authorization No. N/A
Rocky Hill Road, Plymouth, MA Expiration Date N/A
Address
4. Identification of System Reactor Building Closed Cooling Water
5. (a) Applicable Construction Code B31.1 19 68 Edition, -- Addenda, -- Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 80, W80
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)
Lower partition plate in north head of RBCCW heat exchanger E-209B.	--	--	--	90-10 Cu-Ni	--	Replacement	Yes

7. Description of Work The lower partition plate (SSW inlet) in the north channel head was replaced by welding per IIR 89-30-99 and FRNs 89-17-34, 37, 41, 42, 45 through 49.
8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
 Other Pressure _____ psi Test Temp. _____ °F
 PT

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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 The lower partition plate in the north channel head of RBCCW heat exchanger E-209B (SSW side) was deformed and one crack was found in both non-pressure retaining attachment welds. The partition plate was replaced "in-kind" along with both attachment welds per MR 89-30-99.

CERTIFICATE 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. Applicable Manufacturer's Data Reports to be attached
repair or replacement

Type Code Symbol Stamp N/A

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

Signed Stephen L. Bibe Owner or Owner's Designee, Title QA Manager Date Nov. 27 19 89

CERTIFICATE 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 Massachusetts and employed by Factory Mutual Company SYSTEM of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period October 14, 1989 to November 1, 1989, 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 MA#1420 National Board, State, Province, and Endorsements

Date Nov 27 19 89

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

1. Owner Boston Edison Company Date Nov 1, 1989
Name
800 Boylston Street, Boston, MA
Address
2. Plant Pilgrim Nuclear Power Station Unit #1
Name
Rocky Hill Road, Plymouth, MA
Address N/A
Repair Organization P.O. No., Job No., etc.
3. Work Performed by Boston Edison Company Type Code Symbol Stamp N/A
Name Authorization No. N/A
Rocky Hill Road, Plymouth, MA Expiration Date N/A
Address
4. Identification of System: Salt Service Water "B" Loop
5. (a) Applicable Construction Code B31.1 19 68 Edition, -- Addenda -- Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 80, W80

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)
Flange bolting at FE6241	--	--		--	--	Replacement	No
Orifice Plate at FE6241	--	--	--	ASTM A-240 Heat 22866	--	Replacement	No

7. Description of Work Replaced orifice plate at Flow Element FE6241 per MR 89-29-94, NCR #89-71, and FRN 89-17-38. Pressure retaining bolting at FE6241 was replaced per FRN 89-17-27.
8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
 Other Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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 Corrosion of the orifice plate at FE6241 (NCR #89-71) required that
Applicable Manufacturer's Data Reports to be attached
it be replaced per FRN 89-17-38.

CERTIFICATE 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 Stephen L. Bibe Date Nov. 27 1989
Owner or Owner's Designee, Title QA Manager

CERTIFICATE 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 Massachusetts and employed by Factory Mutual Company SYSTEM of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period Oct. 14, 1989 to Nov. 1, 1989, 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 MA #1420
Inspector's Signature National Board, State, Province, and Endorsements

Date NOV 27 1989

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

1. Owner Boston Edison Company Date 3/22/90
Name
800 Boylston Street, Boston, MA
Address
2. Plant Pilgrim Nuclear Station Sheet 1 of 1
Name
Rocky Hill Road, Plymouth, MA Unit #1
Address N/A
Repair Organization P.O. No., Job No., etc.
3. Work Performed by Boston Edison Company Type Code Symbol Stamp N/A
Name Authorization No. N/A
Rocky Hill Road, Plymouth, MA Expiration Date N/A
Address
4. Identification of System Salt Service Water
5. (a) Applicable Construction Code B31.1 1968 Edition, -- Addenda, -- Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements B0 W80

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)
12" Butterfly Valve	Pratt	33761 956K	N/A	N/A	N/A	Replaced	No
12" Butterfly Valve	Pratt	N/A	N/A	709261001	N/A	Replacement	No

7. Description of Work Replacement of Valve H0-3819 per IWP 89-29-107-1
8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
N/A Other Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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 Replaced valve upgrade by CQI 440 R/1
Applicable Manufacturer's Data Reports to be attached

CERTIFICATE 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 R. J. [Signature] for T.N. Family, Inc. QA Manager Date 3/22 19 90
Owner or Owner's Designee, Title

CERTIFICATE 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 Massachusetts and employed by Factory Mutual Systems of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 3/01/90 to 3/22/90, 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 MA 1420
Inspector's Signature National Board, State, Province, and Endorsements

Date 03-22-90

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

1. Owner Boston Edison Company Date 4-8-90
Name
800 Boylston Street, Boston, MA
Address Sheet 1 of 1
2. Plant Pilgrim Nuclear Power Station Unit #1
Name
Rocky Hill Road, Plymouth, MA
Address N/A
Repair Organization P.O. No., Job No., etc.
3. Work Performed by Bechtel Corporation Type Code Symbol Stamp N/A
Name Authorization No. N/A
White Horse Beach, Plymouth, MA 02381
Address Expiration Date N/A
4. Identification of System Residual Heat Removal
5. (a) Applicable Construction Code B31.1 19 58 Edition, -- Addenda, -- Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 80 Winter 1980 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)
18 inch test-able Check valve 1001-688	Rockwell	--	--	N277SP66-MSK	1970	Repaired	No

7. Description of Work See Remarks
8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
 Other Pressure 10; 0 psi Test Temp. Ambient °F
 PT

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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 Repaired galling of valve disc and body seating surfaces by machining
Applicable Manufacturer's Data Reports to be attached
and disc hinge pin areas by welding per NCRs 90-51, 90-80, 90-88 and MR
90-10-9.

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this repair 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 J.A. Foxulari Date April 26 19 90
Owner or Owner's Designee, Title QA Manager

CERTIFICATE 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 Massachusetts and employed by Factory Mutual Corporation SYSTEMS of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 3-28-90 to 4-08-90 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.

V. Lynch Commissions MA-1420
Inspector's Signature National Board, State, Province, and Endorsements

Date 4-27-90

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

1. Owner Boston Edison Company
Name

Date 4-17-90

800 Boylston Street, Boston, MA
Address

Sheet 1 of 1

2. Plant Pilgrim Nuclear Power Station
Name

Unit #1

Rocky Hill Road, Plymouth, MA
Address

N/A
Repair Organization P.O. No., Job No., etc.

3. Work Performed by Bechtel Construction
Name

Type Code Symbol Stamp N/A

White Horse Beach, Plymouth, MA 02381
Address

Authorization No. N/A

Expiration Date N/A

4. Identification of System Main Steam

5. (a) Applicable Construction Code B31.1 19 68 Edition, -- Addenda, -- Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 80, Winter 80 Addenda

6. Identification of Component 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)
Penetration Anchor H-1-1-X7B	N/A	N/A	N/A	N/A	--	Repaired	No

7. Description of Work Repaired crack in structural weld.

8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
Other Pressure _____ psi Test Temp. _____ °F
MT VT

NCTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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 the form.

FORM NIS-2 (Back)

9 Remarks Performed repair by welding of cracked structural weld per NCR 90-52,
NCR 90-110 and MR 90-1-17.
Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this repair 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 L. R. Laxoux Date April 26 19 90
Owner or Owner's Designee, Title QA Manager

CERTIFICATE 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 Massachusetts and employed by Factory Mutual SYSTEMS of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 3-28-90 to 4-17-90, 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 MA-1420
Inspector's Signature National Board, State, Province, and Endorsements

Date 4-27-1990

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

1. Owner Boston Edison Company Date 4-26-90
Name
800 Boylston Street, Boston, MA
Address
2. Plant Pilgrim Nuclear Power Station Sheet 1 of 2
Name
Rocky Hill Road, Plymouth, MA
Address Unit #1
Repair Organization P.O. No., Job No., etc. N/A
3. Work Performed by Boston Edison Company Type Code Symbol Stamp N/A
Name Authorization No. N/A
Rocky Hill Road, Plymouth, MA Expiration Date N/A
Address
4. Identification of System Various Class 1 and 2 Systems
5. (a) Applicable Construction Code B31.1 1968 Edition, -- Addenda, -- Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1980, W80
6. Identification of Components Repaired or Replaced and Replacement Components - see page 2

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)
<i>SEE Page 2</i>							

7. Description of Work Replacement of Snubbers . 14 N/S REPLACED PER Page 2
8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
 Other Pressure _____ psi Test Temp _____ °F N/A

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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 N/A

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE 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 PA Faruolo Date April 26 1990
Owner or Owner's Designee, Title QA Manager

CERTIFICATE 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 Massachusetts and employed by Factory Mutual Systems of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 03/09/90 to 04-26-90, 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 MA-1420
Inspector's Signature National Board, State, Province, and Endorsements

Date 4-27-1990

NEW REPLACEMENT HYDRAULIC SNUBBERS INSTALLED DURING THE 1990 MIDCYCLE OUTAGE

<u>MAINTENANCE REQUEST</u>	<u>PLANT IDENTIFICATION</u>	<u>ISI IDENTIFICATION</u>
90-55-31	SS-2-30-9	H-2-1-SS9
90-55-29	SS-2-20-3	H-2-1-SS3
90-55-28	SS-10-20-2	H-10-1-SS22
90-55-27	SS-2-50-26	H-2-1-SS26
90-55-26	SS-2-30-6	H-2-1-SS6
90-55-21	SS-2-30-5	H-2-1-SS5
90-55-32	SS-23-20-31	H-23-1-14SS
90-55-33	SS-14-3-3	H-14-1-175
90-55-34	SS-13-3-2	H-13-1-SS16
90-55-35	SS-10-3-9	H-10-1-114S
90-55-38	SS-2-30-10	H-2-1-SS10
90-55-39	SS-2-20-4	H-2-1-SS4
90-55-23	SS-2-20-2	H-2-1-SS2
90-55-19	SS-10-20-44	H-10-1-98S

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

1. Owner Boston Edison Company Date 8/27/91
Name
800 Boylston Street, Boston, MA Sheet 1 of 1
Address
2. Plant Pilgrim Nuclear Power Station Unit #1
Name
Rocky Hill Road, Plymouth, MA MR 19080858
Address Repair Organization P.O. No., Job No., etc.
3. Work Performed by Boston Edison Company Type Code Symbol Stamp N/A
Name Authorization No. N/A
Rocky Hill Road, Plymouth, MA Expiration Date N/A
Address
4. Identification of System RBCCW System 30
5. (a) Applicable Construction Code ASME Sec VIII 68 Edition, Addenda, Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 80 Winter 60 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)
RBCCW HX Partition Plate E209B	Engineers & Fabricators Inc.	515577B	1073	MWP19080 858-2	1969	Repair	No YES

7. Description of Work Repair Partition Plates - Welds to Pressure Boundary
8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
 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)

B. Remarks Linear indication found in partition plate during inspection
Applicable Manufacturer's Data Reports to be attached
of RBCCW heat exchanger. Repair required welding to pressure boundary.

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this Repair 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 _____

Signed R. Schifano for FNF Date 10/16 19 91
Owner or Owner's Designee, Title QA MANAGER

CERTIFICATE 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 Massachusetts and employed by Factory Mutual Systems of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-6-91 to 8-27-91 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.

V. [Signature] Commissions MA-1420
Inspector's Signature National Board, State, Province, and Endorsements

Date 10-16 19 91

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

1. Owner Boston Edison Company Date 8/26/91
Name
800 Boylston Street, Boston, MA Sheet 1 of 1
Address
2. Plant Pilgrim Nuclear Power Station Unit #1
Name
Rocky Hill Road, Plymouth, MA MR 89-30-101; TM 89-22
Address Repair Organization P.O. No., Job No., etc.
3. Work Performed by Boston Edison Company Type Code Symbol Stamp N/A
Name Authorization No. N/A
Rocky Hill Road, Plymouth, MA Expiration Date N/A
Address
4. Identification of System Reactor Building Closed Cooling Water System
5. (a) Applicable Construction Code B31.1 19 80 Edition, 1980 Addenda _____ Code Case _____
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 80, Winter 80 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)
RBCCW HX E-209B	Engineers & Fabricators, Inc.	15577-B	N/A	N/A	1969	Replacement	N/A

7. Description of Work Replacement of Heat Exchanger Silicone Type Tube Plugs with Brass Plugs

B. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
 Other Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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 During testing at normal operating pressure, weeping of 28 DPM was
Applicable Manufacturer's Data Reports to be attached
documented on NCR 89-81 and dispositioned Accept-As-Is

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this REPAIR 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 _____

Signed R. Schifano for FN-FAMULARI Date 10/11 19 91
Owner or Owner's Designee Title QA MANAGER

CERTIFICATE 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 Massachusetts and employed by Factory Mutual Systems of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-6-91 to 8-26-91, 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.

V. Byrd Commissions MA-1420
Inspector's Signature National Board, State, Province, and Endorsements

Date 10-16-91

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

1. Owner Boston Edison Company Date 8/26/91
Name
800 Boylston Street, Boston, MA
Address
2. Plant Pilgrim Nuclear Power Station Unit #1
Name
Rocky Hill Road, Plymouth, MA
Address MR 89-29-90; FRJ 90-03-26
Repair Organization P.O. No., Job No., etc.
3. Work Performed by Boston Edison Company Type Code Symbol Stamp N/A
Name
Rocky Hill Road, Plymouth, MA
Address Authorization No. N/A
 Expiration Date N/A
4. Identification of System Reactor Building Closed Cooling Water System
5. (a) Applicable Construction Code B31.1 19 80 Edition, 1980 Addenda _____ Code Case _____
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 80, Winter 80 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)
RBCCW Hx F-209A	Engineers & Fabricators Inc.	15577-A	N/A	N/A	1969	Replacement	N/A

7. Description of Work Replacement of Bolting Material on North and South Heads of RBCCW Heat Exchanger and replacement of tube plugs.
8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
 Other Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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 N/A
Applicable Manufacturer's Data Reports to be attached

CERTIFICATE 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 _____

Signed R. Schifer for FNTAOLAEI Date 10/11 19 91
Owner or Owner's Designee, Title QA MANAGER

CERTIFICATE 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 Massachusetts and employed by Factory Mutual Systems of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-6-91 8-26-91 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.

V. Lyak Commissions MA-1490
Inspector's Signature National Board, State, Province, and Endorsements

Date 10-16-1991

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

1. Owner Boston Edison Company Date 8/26/91
Name
800 Boylston Street, Boston, MA
Address
2. Plant Pilgrim Nuclear Power Station Unit #1
Name
Rocky Hill Road, Plymouth, MA
Address VARIOUS
Repair Organization P.O. No., Job No., etc.
3. Work Performed by Boston Edison Company Type Code Symbol Stamp --
Name
Rocky Hill Road, Plymouth, MA
Address Authorization No. --
 Expiration Date --
4. Identification of System Various
5. (a) Applicable Construction Code B31.1 1967 Edition, -- Addenda, -- Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1980 Winte 1980 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)
SEE ATTACHED							

7. Description of Work Replace Snubbers
8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
 Other Pressure psi Test Temp. °F
FUNCTIONAL TEST

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 in. x 11 in., (2) information in items 1 through 6 of 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 N/A
 Applicable Manufacturer's Data Reports to be attached

CERTIFICATE 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 R. Schifano FN Factory Mutual Date 10/11 19 91
Owner or Owner's Designee, Title QA MANAGER

CERTIFICATE 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 Massachusetts and employed by Factory Mutual Systems of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-6-91 to 8-26-91, 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.

V. York Commissions MA-1422
Inspector's Signature National Board, State, Province, and Endorsements

Date 10-16 19 91

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)
SS-02-30-13	Anchor Darling	446	—	MR19102739	—	Replace	No
SS-10-30-05	Anchor Darling	448	—	MR19100768	—	Replace	No
SS-10-30-01	Anchor Darling	455	—	MR19100767	—	Replace	No
SS-01-10-02	Anchor Darling	437	—	MR19100748	—	Replace	No
SS-10-20-04	Anchor Darling	445	—	MR19100766	—	Replace	No
SS-02-20-21	Anchor Darling	444	—	MR19102733	—	Replace	No
SS-23-10-34	Anchor Darling	438	—	MR19102737	—	Replace	No
SS-02-20-20	Anchor Darling	419	—	MR19100168	—	Replace	No
SS-02-50-23	Anchor Darling	416	—	MR19100170	—	Replace	No
SS-02-30-11	Anchor Darling	418	—	MR19100166	—	Replace	No
SS-23-10-38	Anchor Darling	435	—	MR19100773	—	Replace	No
SS-02-30-12	Anchor Darling	417	—	MR19100165	—	Replace	No
SS-01-10-05	Anchor Darling	424	—	MR19100750	—	Replace	No
SS-01-10-04	Anchor Darling	423	—	MR19100749	—	Replace	No
SS-1-10-07	Anchor Darling	426	—	MR19100751	—	Replace	No
SS-1-10-8	Anchor Darling	451	—	MR19100752	—	Replace	No
SS-1-10-10	Anchor Darling	421	—	MR19100169	—	Replace	No
SS-1-10-11	Anchor Darling	434	—	MR19100753	—	Replace	No
SS-2-20-1	Anchor Darling	459	—	MR19103049	—	Replace	No
SS-2-30-8	Anchor Darling	457	—	MR19103047	—	Replace	No
SS-2-30-14	Anchor Darling	447	—	MR19102738	—	Replace	No
SS-2-30-15	Anchor Darling	456	—	MR19100755	—	Replace	No
SS-2-30-16	Anchor Darling	449	—	MR19100756	—	Replace	No

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)
SS-2-20-24	Anchor Darling	453	—	MR19100754	—	Replace	No
SS-6-10-1	Anchor Darling	429	—	MR19100757	—	Replace	No
SS-6-10-2	Anchor Darling	430	—	MR19100758	—	Replace	No
SS-6-10-3	Anchor Darling	440	—	MR19100759	—	Replace	No
SS-6-10-4	Anchor Darling	422	—	MR19100760	—	Replace	No
SS-6-10-5	Anchor Darling	452	—	MR19100761	—	Replace	No
SS-6-10-6	Anchor Darling	427	—	MR19100164	—	Replace	No
SS-6-10-7	Anchor Darling	431	—	MR19102736	—	Replace	No
SS-6-10-8	Anchor Darling	433	—	MR19103045	—	Replace	No
SS-6-10-9	Anchor Darling	432	—	MR19100762	—	Replace	No
SS-6-10-10	Anchor Darling	439	—	MR19100763	—	Replace	No
SS-10-20-3	Anchor Darling	454	—	MR19100765	—	Replace	No
SS-10-30-6	Anchor Darling	458	—	MR19103048	—	Replace	No
SS-10-20-7	Anchor Darling	443	—	MR19102735	—	Replace	No
SS-10-10-46	Anchor Darling	441	—	MR19100764	—	Replace	No
SS-13-3-1	Anchor Darling	409	—	MR19102998	—	Replace	No
SS-14-3-4	Anchor Darling	450	—	MR19102734	—	Replace	No
SS-23-10-1	Anchor Darling	428	—	MR19100770	—	Replace	No
SS-23-3-30	Anchor Darling	411	—	MR19100769	—	Replace	No
SS-23-10-32	Anchor Darling	425	—	MR19100771	—	Replace	No
SS-23-10-35	Anchor Darling	420	—	MR19100772	—	Replace	No
SS-23-10-39	Anchor Darling	436	—	MR19100776	—	Replace	No
SS-30-3-45	Anchor Darling	442	—	MR19100163	—	Replace	No

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

1. Owner Boston Edison Company Date 8/26/91
Name
800 Boylston Street, Boston, MA Sheet 1 of 1
Address
2. Plant Pilgrim Nuclear Power Station Unit #1
Name
Rocky Hill Road, Plymouth, MA MR 89-30-115
Address Repair Organization P.O. No., Job No., etc.
3. Work Performed by Boston Edison Company Type Code Symbol Stamp N/A
Name Authorization No. N/A
Rocky Hill Road, Plymouth, MA Expiration Date N/A
Address
4. Identification of System Reactor Building Closed Cooling Water System
5. (a) Applicable Construction Code B31.1 19 80 Edition, 1980 Addenda _____ Code Case _____
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 80, Winter 80 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)
RBCCW HX E-209B	Engineers & Fabricators Inc.	15577-B	N/A	N/A	1969	Replacement	N/A

7. Description of Work Replacement of RBCCW Heat Exchanger E-209B Channel Head Bolting Material and tube plugs.

8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
 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 N/A
Applicable Manufacturer's Data Reports to be attached

CERTIFICATE 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 _____

Signed R. Schuler For F.N. Famulari Date 10/11 19 91
Owner or Owner's Designee, Title QA MANAGER

CERTIFICATE 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 Massachusetts and employed by Factory Mutual Systems of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-6-91 to 5-26-91, 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 MA-1420
Inspector's Signature National Board, State, Province, and Endorsements

Date 10-16-1991

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

1. Owner Boston Edison Company Date 8/16/91
Name
800 Boylston Street, Boston, MA Sheet 1 of 1
Address
2. Plant Pilgrim Nuclear Power Station Unit #1
Name
Rocky Hill Road, Plymouth, MA MR 89-23-78
Address Repair Organization P.O. No., Job No., etc.
3. Work Performed by Boston Edison Company Type Code Symbol Stamp N/A
Name Authorization No. N/A
Rocky Hill Road, Plymouth, MA Expiration Date N/A
Address
4. Identification of System HPCI
5. (a) Applicable Construction Code B31.1 19 67 Edition, Addenda _____ Code Case _____
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 80 Winter 80 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)
" SEE REMARKS "							

7. Description of Work Replace Bolting on Check Valve 2301-39
8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
 Other Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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 Damaged studs found during 1ST inspection. Replaced two
studs. Applicable Manufacturer's Data Reports to be attached

CERTIFICATE 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 _____

Signed RSchubert for ENHANCED Date 10/11 19 91
Owner or Owner's Designee, Title QA-MANAGER

CERTIFICATE 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 Massachusetts and employed by Factory Mutual Systems of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-6-91 to 2-16-91, 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.

V. [Signature] Commissions MA-1420
Inspector's Signature National Board, State, Province, and Endorsements

Date 10-16 19 91

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

1. Owner Boston Edison Company Date 8/16/91
Name
800 Boylston Street, Boston, MA Sheet 1 of 1
Address
2. Plant Pilgrim Nuclear Power Station Unit #1
Name
Rocky Hill Road, Plymouth, MA MR 90-13-46
Address Repair Organization P.O. No., Job No., etc.
3. Work Performed by Boston Edison Company Type Code Symbol Stamp N/A
Name Authorization No. N/A
Rocky Hill Road, Plymouth, MA Expiration Date N/A
Address
4. Identification of System Reactor Core Isolation System
5. (a) Applicable Construction Code B31.1 19 80 Edition, 1980 Addenda _____ Code Case _____
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 80 Winter 80 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)
RCIC Suction Weld # HD-13-1-3D	N/A	N/A	N/A	N/A	N/A	Repair	N/A

7. Description of Work Repair of Weld HD-13-1-3D in Accordance with NCR 90-150
8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
 Other Pressure _____ psi Test Temp. _____ °F
MT

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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. Remark: Linear indication removed by flapping only per NCR 90-150. Minimum
Applicable Manufacturer's Data Reports to be attached
wall thickness was maintained and no welding was required. Indication was
in base and metal and verified removed by magnetic particle testing.

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this Repair 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 _____

Signed R. Schifano for FNFarmvill Date 10/11/91 19____
Owner or Owner's Designee, Title QA-MANAGER

CERTIFICATE 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 Massachusetts and employed by Factory Mutual Systems of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-6-91 to 8-26-91 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.

V. Byck Commissions MA-1420
Inspector's Signature National Board, State, Province, and Endorsements

Date 10-16-91

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

1. Owner Boston Edison Company Date 8/16/91
Name
800 Boylston Street, Boston, MA Sheet 1 of 1
Address
2. Plant Pilgrim Nuclear Power Station Unit #1
Name
Rocky Hill Road, Plymouth, MA MR 89-14-15; PDC 89-25
Address Repair Organization P.O. No., Job No., etc.
3. Work Performed by Boston Edison Company Type Code Symbol Stamp N/A
Name Authorization No. N/A
Rocky Hill Road, Plymouth, MA Expiration Date N/A
Address
4. Identification of System Core Spray
5. (a) Applicable Construction Code B31.1 19 80 Edition, 1980 Addenda, _____ Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 80 winter 80 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)
Injection Orifice RO-1400-42B	N/A	N/A	N/A	N/A	N/A	Replacement	No

7. Description of Work Replacement of Injection Orifice Plate RO-1400-42B with new Orifice of Increased Bore
8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
 Other Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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 New orifice size to reduce system pressure drop and increase pump margin.
Applicable Manufacturer's Data Reports to be attached
New orifice plate fabricated on site from 1/4" 316 stainless steel plate which is
equal to the original orifice plate. Bore orifice increased from 4.646" to 4.779"

CERTIFICATE 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 _____

Signed R. Schick for FNFAMULARI Date 10/11 19 91
Owner or Owner's Designee, Title

CERTIFICATE 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 Massachusetts and employed by Factory Mutual Systems of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-6-91 to 8-16-91, 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.

V. [Signature] Commissions MA-1420
Inspector's Signature National Board, State, Province, and Endorsements

Date 10-16 19 91

DESCRIPTION	MR	OTHER
Replace Bolting on P-208A	89-29-115	
Replace Bolting on Flow Element 6240	89-29-85	FRN 89-17-27
Install Tie Rods on P208E	90-29-23	FRN 90-12 (1 to 6)
Install New Columns on P208E	90-29-46	PDC 90-12
		FRN 90-12-11
Replace Bolting on Channel Heads of E-122B	89-29-91	
Repair of E-122A Partition Plate	89-29-92	FRN 90-03-31
Install New Columns on P208C	90-29-54	PDC 90-12
Install Bolting on P208B	90-29-16	FRN 90-12-03
Install Bolting on P208C	90-29-26	PDC 90-12
Install Bolting on P208E	90-29-15	FRN 90-12-02
Install Bolting on P208B	90-29-25	PDC 90-12
Install New Columns on P208B	90-29-44	FRN 90-12 (11 to 14)
Install New Column on P-208B	90-29-62	PDC 90-12
Install New Columns on P208D	90-29-67	FRN 90-12 (11 to 13)
Install New Bolting for Orifice Plate on Line 18-JF-29	89-29-93	
Install New Bolting for P-208D	89-29-31	
Install Bolting on P-208B	89-29-69(3/91)	
Replace Bolting on CK-3880A		
Replace Disk on CK-3880C	19102686	
Replace Disk on CK-3880A	90-29-103	
Replace AO-3925	19080553	T.M. 91-36
Replace Columns on P-208D	90-29-24	PDC 90-12
Replace Bolting on P-208 (Spare)	90-29-116	
Plug Tubes in E 209B	19080253	
Replace P208A Air Vent Valve	19080281	T.M. 91-51
Replaced 29-HO-3884 Valve	19103224	
Install AO 3915 Temporary	19102081	TM 91-36
29CK 3880C Rebuild CK. Valve	19102686	
Repaired SSW Spools 'A' Loop JF 29-3-1	19102867	
Replace Spools JF 29-16-10 - Hanger H29-1-1062	19102868	PDC 91-01-28
Replace Bolting Screenhouse with B-7 Bolting	19100331	
Install AO 3925 Temporary	19103028	T.M. 91-36

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

1. Owner Boston Edison Company Date 8/16/91
Name
800 Boylston Street, Boston, MA Sheet 1 of 2
Address
2. Plant Pilgrim Nuclear Power Station Unit #1
Name
Rocky Hill Road, Plymouth, MA VARIOUS
Address Repair Organization P.O. No., Job No., etc.
3. Work Performed by Boston Edison Company Type Code Symbol Stamp N/A
Name Authorization No. N/A
Rocky Hill Road, Plymouth, MA Expiration Date N/A
Address
4. Identification of System Salt Service Water
5. (a) Applicable Construction Code B31.1 19 67 Edition, _____ Addenda, _____ Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 80 Winter 80 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)

7. Description of Work _____

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

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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 _____

CERTIFICATE 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 _____

Signed R. Sch for FNI/AGUAR Date 10/11 19 91
Owner or Owner's Designer, Title QA MANAGER

CERTIFICATE 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 Massachusetts and employed by Factory Mutual Systems of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-6-91 to 8-16-91 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.

V. Lynde Commissions MA-1422
Inspector's Signature National Board, State, Province, and Endorsements

Date 10-16 19 91

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

1. Owner Boston Edison Company Date 8/16/91
Name
800 Boylston Street, Boston, MA Sheet 1 of 2
Address
2. Plant Pilgrim Nuclear Power Station Unit #1
Name
Rocky Hill Road, Plymouth, MA Various
Address Repair Organization P.O. No., Job No., etc.
3. Work Performed by Boston Edison Company Type Code Symbol Stamp N/A
Name Authorization No. N/A
Rocky Hill Road, Plymouth, MA Expiration Date N/A
Address
4. Identification of System Salt Service Water
5. (a) Applicable Construction Code B31.1 19 67 Edition, Addenda _____ Code Case _____
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 80 Winter 80 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)
SEE ATTACHED <i>page #2.</i>							

7. Description of Work Replaced Degraded SSW Piping Spool Pieces per NED 90-713
8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
 Other Pressure 150 psi Test Temp. Amb. °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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

N/A

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE 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

Inspected by R. Solfer for FN FAVULARI Date 10/11 19 91
Owner or Owner's Designee, Title PP MANAGER

CERTIFICATE 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 Massachusetts and employed by Factory Mutual Systems of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-6-91 to 8-25-91, 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 MA-1420
National Board, State, Province, and Endorsements

Date 10-16-1991

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

1. Owner Boston Edison Company Date 8/13/91
Name
800 Boylston Street, Boston, MA Sheet 1 of 1
Address
2. Plant Pilgrim Nuclear Power Station Unit #1
Name
Rocky Hill Road, Plymouth, MA MR 90-30-35; MR 90-30-34
Address Repair Organization P.O. No., Job No., etc.
3. Work Performed by Boston Edison Type Code Symbol Stamp N/A
Name Authorization No. N/A
Rocky Hill Road, Plymouth, MA Expiration Date N/A
Address
4. Identification of System RBCCW System 30
5. (a) Applicable Construction Code B31.1 19 67 Edition, -- Addenda, -- Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 80 Winter 1980 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)
E209A HT X-changer		—	—	MR90-30-35		Replace	N/A
E209B HT X-changer		—	—	MR 90-30-34		Replace	N/A

7. Description of Work Replace Bolting on Heat Exchangers
8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
 Other Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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 Bolting replaced in conjunction with maintenance of heat
exchangers.
Applicable Manufacturer's Data Reports to be attached

CERTIFICATE 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 _____

Signed R. Schlemmer for FIVEPMLL-RI Date 10/1 19 91
Owner or Owner's Designee, Title QA MANAGER

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Province of Massachusetts and employed by Factory Mutual Systems of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-6-91 to 8-13-91 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.

V. H. [Signature] Commissions MA-1400
Inspector's Signature National Board, State, Province, and Endorsements

Date 10-16-19 91

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

1. Owner Boston Edison Company Date 8/13/91
Name
800 Boylston Street, Boston, MA Sheet 1 of 1
Address
2. Plant Pilgrim Nuclear Power Station Unit #1
Name
Rocky Hill Road, Plymouth, MA MR 19180281
Address Repair Organization P.O. No., Job No., etc.
3. Work Performed by Boston Edison Type Code Symbol Stamp N/A
Name Authorization No. N/A
Rocky Hill Road, Plymouth, MA Expiration Date N/A
Address
4. Identification of System SSW System 29
5. (a) Applicable Construction Code B31.1 1967 Edition, -- Addenda, -- Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements is 80 Winter 1980 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)
Air Release Vent Valve	Crispin	—	—	Valve No. AV.A	—	Replacement	

7. Description of Work Install Valmatic Vent Valve Assembly
8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
 Other Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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 Inspection of Air Release Valve resulted in replacement of
the valve. An equivalent valve Valmatic Vent Valve was used.
Applicable Manufacturer's Data Reports to be attached

CERTIFICATE 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

Signed R. Schy for FNF America Date 10/11, 19 91
Owner or Owner's Designee, Title QA MANAGER

CERTIFICATE 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 Massachusetts and employed by Factory Mutual Systems of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-6-91 to 8-13-91, 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.

V. J. [Signature] Commissions MA-1400
Inspector's Signature National Board, State, Province, and Endorsements

Date 10-16 '91

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

1. Owner Boston Edison Company Date 8/13/91
Name
800 Boylston Street, Boston, MA Sheet 1 of 1
Address
2. Plant Pilgrim Nuclear Power Station Unit #1
Name
Rocky Hill Road, Plymouth, MA MR 1910203
Address Repair Organization P.O. No., Job No., etc.
3. Work Performed by Boston Edison Type Code Symbol Stamp N/A
Name Authorization No. N/A
Rocky Hill Road, Plymouth, MA Expiration Date N/A
Address
4. Identification of System RHR
5. (a) Applicable Construction Code B31.1 1967 Edition, Addenda, Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1980 W80 Addenda 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)
1" Bolt Heavy	For Hanger #	Beco #		MRIR #			
	H-10-1-17	493045		88-5176		Replaced	No
1" Bolt Heavy	For Hanger #			MRIR #			
	H10-1-18	493045		88-5176		Replaced	No
1" Nut Heavy	For Hanger #			MRIR #			
	H-10-1-18	481577		90-RT-1825		Replaced	No
2-1" Washers	For Hanger #			MRIR #			
	H-10-1-106S	N495412		91-4658		Replaced	No

7. Description of Work Removed existing bolt for NCR 91-167, 91-168, Installed New Bolt
8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
 Other Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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)

B. Remarks Supports failed ISI visual examination due to threads in
support zone of eye nut. Replaced bolting to close nonconformance.
Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this Replace 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 _____

Signed R. Volpone for PNF Date 10/16 19 91
Owner or Owner's Designee, Title QA MANAGER

CERTIFICATE OF INSERVICE INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and the State of Province of Massachusetts and employed by Factory Mutual Systems of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-6-91 to 8-13-91, 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.

V. [Signature] Commissions MA-1420
Inspector's Signature National Board, State, Province, and Endorsements

Date 10-16-91

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

1. Owner Boston Edison Company Date 8/13/91
Name
800 Boylston Street, Boston, MA Sheet 1 of 1
Address
2. Plant Pilgrim Nuclear Power Station Unit #1
Name
Rocky Hill Road, Plymouth, MA MWP 19103442-1
Address Repair Organization P.O. No., Job No., etc.
3. Work Performed by Boston Edison Type Code Symbol Stamp --
Name Authorization No. --
Rocky Hill Road, Plymouth, MA Expiration Date --
Address
4. Identification of System Main Steam System #1
5. (a) Applicable Construction Code ASME III 1968 Edition, S70 Addenda -- Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1980 Winter 80 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)
Main Steam Relief Valve	Target Rock	—	—	RV203-3B		Replacement <i>REPAIR</i>	<i>NO</i>

7. Description of Work Replace bolting material for valve body to Pilot Assembly and replace Pilot Assembly base
8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
 Other Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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)

B. Remarks Pilot assembly to valve body leakage caused this replacement.

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE 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 _____

Signed W. R. Schick

Owner or Owner's Designee Title

SA-MANAGER

Date 10/11

19 91

CERTIFICATE 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 Massachusetts and employed by Factory Mutual Systems of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-6-91 to 8-13-91, 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.

V. Dyck
Inspector Signature

Commissions

MA-14'00

National Board, State, Province, and Endorsements

Date

10-16-91

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

1. Owner Boston Edison Company Date 8/8/91
Name
800 Boylston Street, Boston, MA Sheet 1 of 1
Address
2. Plant Pilgrim Nuclear Power Station Unit #1
Name
Rocky Hill Road, Plymouth, MA MR-90-10-61
Address Repair Organization P.O. No., Job No., etc.
3. Work Performed by Boston Edison Company Type Code Symbol Stamp N/A
Name Authorization No. N/A
Rocky Hill Road, Plymouth, MA Expiration Date N/A
Address
4. Identification of System Residual Heat Removal System #10
5. (a) Applicable Construction Code B31.1.0 19 67 Edition, Addenda _____ Code Case _____
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 80 Edition W80 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)
H10-1-102S	Bergen-Patterson	470516 470517		Strut Assembly B" Pipe Clamp		Replaced Replaced	
<i>SUPPORT</i>							

7. Description of Work Replacement of hanger parts due to ISI Examinations. Nonconformance Report 91-107
8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
 Other Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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 N/A
Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this Repair 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

Signed R. Schifano for FN Mutual Date 10/11/91 19
Owner or Owner's Designee Title QA-MANAGER

CERTIFICATE 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 Massachusetts and employed by Factory Mutual Systems of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-6-91 to 8-8-91, 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.

V. Lynch Commissions MA-1420
Inspector's Signature National Board, State, Province, and Endorsements

Date 10-16 1991

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

1. Owner Boston Edison Company Date 8-7-91
Name
800 Boylston Street, Boston, MA Sheet 1 of 1
Address
2. Plant Pilgrim Nuclear Power Station Unit 1
Name
Rocky Hill Road, Plymouth, MA MR 19103139
Address Repair Organization P.O. No., Job No., etc.
3. Work Performed by Boston Edison Type Code Symbol Stamp N/A
Name Authorization No. N/A
Rocky Hill Road, Plymouth, MA Expiration Date N/A
Address
4. Identification of System Reactor Water Clean Up
5. (a) Applicable Construction Code B31.1 19 67 Edition, - Addenda, - Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 80 Winter 80 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)

2. Description of Work replace Piping X-14 to 6 x 4 Reducer
6. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
 Other Pressure 1159 psi Test Temp. 199 °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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 PDC 91-39 - Due to indications of IGSCC, piping from the
Applicable Manufacturer's Data Reports to be attached
containment penetration X-14 to the 6" x 4" reducer was replaced. Total
length replaced was approximately 70 feet. * Replacement material is less
susceptible to IGSCC. * SA 312 Type 316L

CERTIFICATE 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 _____

Signed R. Schifone Owner or Owner's Designee Title QA-MANAGER Date 10/11, 19 91

CERTIFICATE 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 Massachusetts and employed by Factory Mutual Systems of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-6-91 to 8-7-91 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.

V. Byrne Inspector's Signature Commissions MA-1420 National Board, State, Province, and Endorsements

Date 10-16-1991

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

1. Owner Boston Edison Company Date 7/26/91
Name
800 Boylston Street, Boston, MA
Address
2. Plant Pilgrim Nuclear Power Station Unit #1
Name
Rocky Hill Road, Plymouth, MA MR 19103007
Address Repair Organization P.O. No., Job No., etc.
3. Work Performed by Anchor Darling/BECO Type Code Symbol Stamp N/A "NR"
Name Authorization No. N/A 44
Williamsport, PA Expiration Date N/A July 10, 1992
Address
4. Identification of System Feedwater System
5. (a) Applicable Construction Code B31.1 19 67 Edition, - Addenda N2 & N10 Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 80 Winter 80 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)
6- 62A Valve	Anchor/Darling	—	—	—	1969	Replace	No

7. Description of Work New Disk - Machine Pressure Seal - Repair Hinge pins
8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
 Other Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Boston Edison Company Date 7/26/91
Name
800 Boylston Street, Boston, MA Sheet 1 of 1
Address
2. Plant Pilgrim Nuclear Power Station Unit #1
Name
Rocky Hill Road, Plymouth, MA RHR 90-10-37
Address Repair Organization P.O. No., Job No., etc.
3. Work Performed by Anchor Darling/BECo Type Code Symbol Stamp N/A
Name Authorization No. N/A
Williamsport, PA Expiration Date N/A
Address
4. Identification of System RHR System
5. (a) Applicable Construction Code B31.1 19 67 Edition, Addenda N2 Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 80 Winter 80 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)
1001-33 Valve	Walworth	—	—	—	1969	Repair	No

7. Description of Work Rebuild Valve - Remove Furmanite Fitting
8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
 Other Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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 total number of sheets is recorded at the top of this form.

FORM NIS-2 (Back)

9. Remarks Leakage of valve required a new pressure seal gasket.
Furmanite holes were sealed with gland plugs.
Applicable Manufacturer's Data Reports to be attached

CERTIFICATE OF COMPLIANCE

We certify that the statements made in the report are correct and this Repair 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 _____

Signed R. Schifano for F.M. Frankel Date 10/11 19 91
Owner or Owner's Designee, Title QA MANAGER

CERTIFICATE 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 Massachusetts and employed by Factory Mutual Systems of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-6-91 to 7-26-91, 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.

V. Lopez Commissions MA-1420
Inspector's Signature National Board, State, Province, and Endorsements

Date 10-16 19 91

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

1. Owner Boston Edison Company Date 7/26/91
Name
800 Boylston Street, Boston, MA Sheet 1 of 1
Address
2. Plant Pilgrim Nuclear Power Station Unit #1
Name
Rocky Hill Road, Plymouth, MA MR 19006016
Address Repair Organization P.O. No., Job No., etc.
3. Work Performed by Anchor Darling/BECo Type Code Symbol Stamp N/A "NR"
Name Authorization No. N/A 44
Williamsport, PA Expiration Date N/A JULY 10, 1992
Address
4. Identification of System Feedwater System
5. (a) Applicable Construction Code B31.1 19 67 Edition, Addenda N2 & N10 Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 80 Edition Winter 80 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)
6-58A Valve	Anchor/Darling	—	—	—	1969	Replace	No

7. Description of Work Rebuild Valve - New Disk - Machine Pressure Seal Area
8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
 Other Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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

N/A

Applicable Manufacturer's Data Reports to be attached

CERTIFICATE 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

Signed

R. Schuler

F. Miraluis

Date

10/11

19 91

Owner or Owner's Designee, Title

QA MANAGER

CERTIFICATE 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 Massachusetts and employed by Factory Mutual Systems of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-6-91 to 7-26-91, 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

MA 1420

National Board, State, Province, and Endorsements

Date

10-16-91

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

1. Owner Boston Edison Company
Name

Date 7/26/91

800 Boylston Street, Boston, MA
Address

Sheet 1 of 1

2. Plant Pilgrim Nuclear Power Station
Name

Unit #1

Rocky Hill Road, Plymouth, MA
Address

MR 19006025
Repair Organization P.O. No., Job No., etc.

3. Work Performed by Anchor Darling/BECO
Name

Type Code Symbol Stamp N/A NR

Williamsport, PA
Address

Authorization No. N/A 44

Expiration Date N/A JULY 10, 1992

4. Identification of System Feedwater System

5. (a) Applicable Construction Code B31.1 19 67 Edition, Addenda N2 & N10 Code Case
(b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 80 Edition Winter 1980 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)
6-62B Valve	Anchor/Darling	---	---	---	1969	Replace	No

7. Description of Work New Disk - Repair Hinge Pins

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

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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 N/A
Applicable Manufacturer's Data Reports to be attached:

CERTIFICATE 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 _____

Signed G. Schifano for FNF Am URAI Date 10/11, 19 91
Owner or Owner's Designee, Title QA-MANAGER

CERTIFICATE 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 Massachusetts and employed by Factory Mutual Systems of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-6-91 to 7-26-91, 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.

V. Dyck Commissions MA-1420
Inspector's Signature National Board, State, Province, and Endorsements

Date 10-16-91

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

1. Owner Boston Edison Company Date 7/26/91
Name
800 Boylston Street, Boston, MA
Address
2. Plant Pilgrim Nuclear Power Station Unit #1
Name
Rocky Hill Road, Plymouth, MA MR 19102952
Address Repair Organization P.O. No., Job No., etc.
3. Work Performed by Anchor Darling/BECO Type Code Symbol Stamp N/A "NG"
Name Authorization No. N/A 44
Williamsport, PA Expiration Date N/A July 10, 1992
Address
4. Feedwater System
Portion of System
5. (a) Applicable Construction Code B31.1 19 67 Edition, Addenda N2 & N10 Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 80 Edition Winter 80 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)
6-50B Valve	Anchor/Darling	---	---	---	1969	Replace	No

7. Description of Work New Disk - Machine Pressure Seal - Repair Hinge Pins
8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
 Other Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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 N/A
Applicable Manufacturer's Data Reports to be attached

CERTIFICATE 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 _____

Signed [Signature] FNF Date 10/11/91, 19____
Owner or Owner's Designee, Title P.A. MANAGER

CERTIFICATE 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 Massachusetts and employed by Factory Mutual Systems of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-6-91 to 7-21-91 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 MA-1420
Inspector's Signature National Board, State, Province, and Endorsements

Date 10-16 1991

FORM NR-1 REPORT OF REPAIR MODIFICATION OR INSTALLATION OF REPLACEMENT TO NUCLEAR COMPONENTS AND SYSTEMS IN NUCLEAR POWER PLANTS

1. Work performed by Anchor/Darling Valve Company 50946
701 First Street, P.O. Box 3428, Williamsport, PA 17701

2. Owner Boston Edison Company
800 Boylston Street, Boston, MA 02199-0188

3. Name, address and identification of nuclear power plant Pilgrim Nuclear Power Station
RFD #1, Rocky Hill Road, Plymouth, MA 02360

4. Identification of system BHR Valve System #10

5. a: Identification of component repaired, modified or replaced Valve #MD-1001-50
b: Name of manufacturer Walworth
c: Identifying nos. 045203

6. Applicable section(s) III of ASME Code, 19 85 edition, addenda Code Case ---

7. Design responsibility OWNER-BECO

8. Tests conducted: hydrostatic pneumatic design pressure pressure REL
9. Description of work Perform weld repairs as described below. R&T, B.E. Co. P.O. #69702
(List of additional sheets or sketches to describe if properly identified)

10. Remarks: Perform weld repair to eliminate furmanite injection holes.
One 3/16" dia. hole drilled for furmanite was plugged and weld repaired per
B.E. Co's repair procedure and A/DV QA program.
Selected pressure seal areas was also weld repaired per procedure and drawings.
Final Hydro/Leak test to be performed by owner prior to startup.

CERTIFICATE OF COMPLIANCE

We certify that the statements made in this report are correct and that all design, material and workmanship on this modification conforms to the applicable section of the ASME Code.

Certificate of Authorization no. 44 to use the "NR" stamp expires July 10, 1992

Signed A/DV Richard Hart QA ENGINEER July 12, 1991

CERTIFICATE OF INSPECTION

I, the undersigned, holding a valid commission 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 _____ have inspected the repair, modification or replacement described in this report on _____ 19____ and state that to the best of my knowledge and belief, this repair, modification or replacement has been made or constructed in accordance with Section XI and Section III of the ASME Code and the National Board rules as defined in the publications 45 and NB-102, current editions. By signing this certificate, neither the inspector nor his employer makes any warranty, expressed or implied, concerning the repair, modification or replacement described in this 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 _____ 19____ Signed _____ Commission # _____

This form may be obtained from The National Board of Boiler and Pressure Vessel Inspectors

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

1. Owner Boston Edison Company Date 7/12/91
Name
800 Boylston Street, Boston, MA Sheet 1 of 1
Address
2. Plant Pilgrim Nuclear Power Station Unit #1
Name
Rocky Hill Road, Plymouth, MA P.O. S0946; MR 89-10-121
Address Repair Organization P.O. No., Job No., etc.
3. Work Performed by Anchor Darling Valve Co. Type Code Symbol Stamp NR
Name Authorization No. 44
701 1st St., PO Box 3428, Williamsport, PA Expiration Date July 10, 1992
Address
4. Identification of System RHR System
5. (a) Applicable Construction Code B31.1 19 67 Edition, Addenda N2 Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 80 Winter 1980 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)
MO-1001-50 VALVE	Walworth	C45203	—	20" Mark N14M3	1969	Repair	NO

7. Description of Work Weld repair to eliminate furmanite injection hole (Ref. Att. NR-1 Form) and replace bonnet PO #NST 13564
8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
 Other Pressure 1150 psi Test Temp. 81 °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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 N/A
Applicable Manufacturer's Data Reports to be attached

CERTIFICATE 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 _____

Signed R. Schifano for ENFORMULARI Date 10/11 19 91
Owner or Owner's Designee Title D.A. MANAGER

CERTIFICATE 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 Massachusetts and employed by Factory Mutual Systems of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-6-91 to 7-12-91, 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 [Signature] Commissions MA-1420
National Board, State, Province, and Endorsements

Date 10-16 19 91

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

1. Owner Boston Edison Company Date 5/29/91
Name
800 Boylston Street, Boston, MA Sheet 1 of 1
Address
2. Plant Pilgrim Nuclear Power Station Unit #1
Name
Rocky Hill Road, Plymouth, MA MR 19102217
Address Repair Organization P.O. No., Job No., etc.
3. Work Performed by Boston Edison Company Type Code Symbol Stamp N/A
Name Authorization No. N/A
Rocky Hill Road, Plymouth, MA Expiration Date N/A
Address
4. Identification of System RHR System 10
5. (a) Applicable Construction Code ASME Sect. VIII 19 86 Edition, -- Addenda, -- Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 80 Edition Winter 80 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)
PSV 8008	Dresser	1990C	—	MWP 19102217-1	—	Replacement Yes	

7. Description of Work Replace existing PSV with replacement PSV.
8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
 Other Pressure _____ psi Test Temp. _____ °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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 valve leaking, original valve and/or spare parts no longer
Applicable Manufacturer's Data Reports to be attached
available. Substitution Equivalency Evaluation #215 issued to
provide new valve.

CERTIFICATE 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 —

Signed R. Schifano for ENFORMALI Date 10/11, 1991
Owner or Owner's Designee, Title QA MANAGER

CERTIFICATE 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 Massachusetts and employed by Factory Mutual Systems of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-6-91 to 5-29-91 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.

V. J. [Signature] Commissions MA-1420
Inspector's Signature National Board, State, Province, and Endorsements

Date 10-16 1991

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

1. Owner Boston Edison Company Date 5/17/91
Name
800 Boylston Street, Boston, MA Sheet 1 of 1
Address
2. Plant Pilgrim Nuclear Power Station Unit #1
Name
Rocky Hill Road, Plymouth, MA MR 89-13-068
Address Repair Organization P.O. No., Job No., etc.
3. Work Performed by Boston Edison Company Type Code Symbol Stamp N/A
Name Authorization No. N/A
Rocky Hill Road, Plymouth, MA Expiration Date N/A
Address
4. Identification of System RCIC
5. (a) Applicable Construction Code B31.1 19 67 Edition, Addenda N2, N10 Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 80 W80 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)
Valve Bonnet 13-MO-1301-17	Velan	—	—	BECO SS 526062	—	Replace	N

7. Description of Work Replace Valve Bonnet
8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
 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 Valve Bonnet Replaced as per MWP #89-13-68-1
Applicable Manufacturer's Data Reports to be attached
During maintenance for packing leak, it was necessary to replace the
valve bonnet.

CERTIFICATE 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 _____

Signed R. Schifano for FN Factory Mutual Date 10/11 1991
Owner or Owner's Designee, Title QA MANAGER

CERTIFICATE 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 Massachusetts and employed by Factory Mutual Systems of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-6-91 to 5-17-91, 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.

V. [Signature] Commissions MA-1420
Inspector's Signature National Board, State, Province, and Endorsements

Date 10-16-91

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

1. Owner Boston Edison Company Date 5/14/91
Name
800 Boylston Street, Boston, MA Sheet 1 of 1
Address
2. Plant Pilgrim Nuclear Power Station Unit #1
Name
Rocky Hill Road, Plymouth, MA MR 1910066E & PDC 90-66
Address Repair Organization P.O. No., Job No., etc.
3. Work Performed by Boston Edison Type Code Symbol Stamp N/A
Name Authorization No. N/A
Rocky Hill Road, Plymouth, MA Expiration Date N/A
Address
4. Identification of System Residual Heat Removal
5. (a) Applicable Construction Code B31.1 1968 Edition, Addenda, Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 1980 Winter 1980 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)
	" SEE REMARKS "						

7. Description of Work Add 10-10-65 to Isolate 10-CK-515; Add Class HL Pipe
8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
 Other Pressure -- psi Test Temp. 86 °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 8 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 Valve 10-H0-65 was added to provide a means to isolate valve
10-CK-515 for testing.
Applicable Manufacturer's Data Reports to be attached

CERTIFICATE 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 _____

Signed R. S. [Signature] for FNFAVULARI Date 10/11, 19 91
Owner or Owner's Designee, Title QA MANAGER

CERTIFICATE 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 Massachusetts and employed by Factory Mutual Systems of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-14-91 to _____, 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 MA-1420
Inspector's Signature National Board, State, Province, and Endorsements

Date 10-16, 19 91

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

1. Owner Boston Edison Company Date 5/4/91
Name
800 Boylston Street, Boston, MA Sheet 1 of 1
Address
2. Plant Pilgrim Nuclear Power Station Unit #1
Name
Rocky Hill Road, Plymouth, MA MR 19101460
Address Repair Organization P.O. No., Job No., etc.
3. Work Performed by Boston Edison Type Code Symbol Stamp N/A
Name Authorization No. N/A
Rocky Hill Road, Plymouth, MA Expiration Date N/A
Address
4. Identification of System Reactor Head Spray
ASME
5. (a) Applicable Construction Code Sect. III 19 80 Edition, Winter 1980 Addenda, Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 80 Winter 1980 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)
1500 #6" Blind Flange	—	—	—	—	—	Replaced	Yes
4" Pipe Cap	—	—	—	—	—	Replaced	Yes
1 3/8" Stud Bolt	—	—	—	—	—	Replaced	Yes
1 3/8" Nut	—	—	—	—	—	Replaced	Yes

7. Description of Work Remove RHR Head Spray Line and Cap at Pen. Install blind flange at RPV.
8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
 Other Pressure 1050 psi Test Temp. 200 °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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 PDC 86-52B - Removed line was previously abandoned in place.
Applicable Manufacturer's Data Reports to be attached
Terminations of line consisted of a blind flange at the reactor pressure vessel
and a pipe cap at the penetration.

CERTIFICATE 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 —

Signed R. Schifano for FNF Energy Date 10/11 19 91
Owner or Owner's Designee, Title O.A. MANAGER

CERTIFICATE 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 Massachusetts and employed by Factory Mutual Systems of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-4-91 to —, 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.

H. [Signature] Commissions MA-1420
Inspector's Signature National Board, State, Province, and Endorsements

Date 10-16-91

FORM N13-2 OWNER'S REPORT FOR REPAIRS OR REPLACEMENTS
As Required by the Provisions of the ASME Code Section XI

1. Owner Boston Edison Company Date 5/4/91
Name
800 Boylston Street, Boston, MA
Address
2. Plant Pilgrim Nuclear Power Station Unit #1
Name
Rocky Hill Road, Plymouth, MA MR 19101565
Address Repair Organization P.O. No., Job No., etc.
3. Work Performed by Boston Edison Type Code Symbol Stamp N/A
Name Authorization No. N/A
Rocky Hill Road, Plymouth, MA Expiration Date N/A
Address
4. Identification of System RHR and Core Spray Make Up Lines
5. (a) Applicable Construction Code B31.1 19 80 Edition, 1980 Addenda, _____ Code Case
 (b) Applicable Edition of Section XI Utilized for Repairs or Replacements 19 80 Winter 1980 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)
Valve (Gate) 10-HO-57A/B	---	---	---	---	---	Replace	No
2" Piping						Replace	No

7. Description of Work Install Test Connections on RHR and Core Spray Lines Per MWP 19101565
PDC 90-79
8. Tests Conducted: Hydrostatic Pneumatic Nominal Operating Pressure
 Other Pressure 535 psi Test Temp. 83 °F

NOTE: Supplemental sheets in form of lists, sketches, or drawings may be used, provided (1) size is 8 1/2 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 Valves added to provide isolation for testing.
Applicable manufacturer's Data Reports to be attached

CERTIFICATE 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 _____

Signed R Schifone for FNF Date 10/4 19 91
Owner or Owner's Designee, Title QA MANAGER

CERTIFICATE 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 Massachusetts and employed by Factory Mutual Systems of Norwood, Massachusetts have inspected the components described in this Owner's Report during the period 5-4-91 to _____, 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.

V. York Commissions MA-1420
Inspector's Signature National Board, State, Province, and Endorsements

Date 10-16-91

SECTION 4.0

EXAMINATIONS PERFORMED DURING 1990 MID-CYCLE MAINTENANCE OUTAGE

<u>SYSTEM</u>	<u>COMPONENT</u>	<u>ISO</u>	<u>CAT</u>	<u>DATA SHEET</u>	<u>METHOD</u>	<u>RESULTS</u>
FW	6-A-10	ISI-I-6-1	B-J	90-M-46	MT-UT	NRI/C
				90-E-39		NRI/C
				90-E-42		NRI/C
				90-E-45		NRI/C
FW	6-B-8	ISI-I-6-1	B-J	90-M-36	MT-UT	NRI/C
				90-E-38		NRI/C
				90-E-41		NRI/C
				90-E-44		NRI/C
HCPI	23-0-16	ISI-I-23-1	B-J	90-M-70	MT-UT	NRI/C
				90-E-62		NRI/C
				90-E-66		NRI/C
				90-E-69		NRI/C
				90-E-73		NRI/C
HCPI	23-0-17	ISI-I-23-1	B-J	90-M-60	MT-UT	NRI/C
				90-E-63		NRI/C
				90-E-65		NRI/C
				90-E-68		NRI/C
				90-E-72		NRI/C
	23-I-12	ISI-I-23-1	B-J	90-M-74	MT-UT	NRI/C
				90-E-76		NRI/C
				90-E-78		NRI/C
				90-E-80		NRI/C
				90-E-82		NRI/C
MS	1-AR-1	ISI-I-1-1	B-J	90-M-012	MT-UT	NRI/C
				90-E-014		NRI/C
				90-E-018		NRI/C
				90-E-020		NRI/C
				90-E-022		NRI/C
MS	1-B-15	ISI-I-1-1	B-J	90-M-34	MT-UT	NRI/C
				90-E-26		NRI/C
				90-E-27		NRI/C
				90-E-32		NRI/C
MS	1-B-8	ISI-I-1-1	B-J	90-E-001	MT-UT	NRI/C
				90-E-003		NRI/C
				90-E-006		NRI/C
				90-E-009		NRI/C

NRI = No Recordable Indications

C = Complete Exam

R = Restricted Exam

SECTION 4.0

EXAMINATIONS PERFORMED DURING 1990 MID-CYCLE MAINTENANCE OUTAGE

SYSTEM	COMPONENT	ISO	CAT	DATA SHEET	METHOD	RESULTS
MS	1-B-9	ISI-I-1-1	B-J	90-M-011 90-E-004 90-E-007 90-E-010	MT-UT	NRI/C NRI/C NRI/C NRI/C
MS	1-E-14	ISI-I-1-1	B-J	90-M-035 90-E-27 90-E-30 90-E-33	MT-UT	NRI/C NRI/C NRI/C NRI/C
RECIRC	2R-N2H-3	ISI-I-2R-B	B-J	90-P-104 90-E-106	PT-UT	NRI/C NRI/C
RHR	10R-0-14	ISI-I-10-1A	B-J	90-E-120 90-P-116 90-E-134	PT-UT	NRI/C NRI/C NRI/C
MS	RV203-4B	ISI-I-1-1	B-M-2	VT-1-90012	VT-3	NRI/C
MS	SRV203-3B	ISI-I-1-1	B-M-2	VT-1-90013	VT-3	NRI/C
MS	SRV203-3C	ISI-I-1-1	B-M-2	VT-1-90014	VT-3	NRI/C
RHR	MO1001-29B	ISI-I-10-1	B-M-2	VT-10-90006 VT-10-90012	VT-3 VT-3	NCR 90-49 NRI/C
R	CK1001-68B	ISI-I-10-1	B-M-2	VT-10-90007 VT-10-90008	VT-3 VT-3	NCR 90-51 NRI/C
CS	HL-14-F50	ISI-I-14-2A	C-F	90-M-57	MT	NRI/C
CS	HLB-14-F48H	ISI-I-14-2A	C-F	90-M-58	MT	NRI/C
CS	HL-14-F51	ISI-I-14-2B	C-F	90-M-55	MT	NRI/C
CS	HLB-14-F14H	ISI-I-14-2B	C-F	90-M-54	MT	NRI/C
HCPI	HL-23-1-2A	ISI-I-23-4	C-F	90-M-59	MT	NRI/C
HCPI	HL-23-F20	ISI-I-23-4	C-F	90-M-130	MT	NRI/C
RHR	GB-10-16-1C	ISI-I-10-4A	C-F	90-M-49	MT	NRI/C
RHR	GB-10-F65	ISI-I-10-4A	C-F	90-M-48	MT	NRI/C
RHR	GB-10-16-2C	ISI-I-10-4A	C-F	90-M-47	MT	NRI/C
RMCU	H-12-1-97	ISI-I-12-1	F-A	VT-12-90002	VT-3	NRI/C
FW	H-6-1-69	ISI-I-6-1	F-B	VT-6-90002	VT-3	NRI/C

NRI = No Recordable Indications

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SECTION 4.0

EXAMINATIONS PERFORMED DURING 1990 MID-CYCLE MAINTENANCE OUTAGE

<u>SYSTEM</u>	<u>COMPONENT</u>	<u>ISO</u>	<u>CAT</u>	<u>DATA SHEET</u>	<u>METHOD</u>	<u>RESULTS</u>
MS	H-1-1-X7B	ISI-I-1-1	F-B	VT-1-90003 VT-1-90016	VT-3	NCR 90-52
MS	H-1-1-108	ISI-I-1-1	F-B	VT-1-90005	VT-3	NCR 90-24
MS	H-1-1-X8	ISI-I-1-1	F-B	VT-1-90004	VT-3	NRI/C
RBCCW	H-30-1-288	ISI-I-30-1	F-B	VT-30-90001	VT-3	NRI/C
RBCCW	H-30-1-290	ISI-I-30-1	F-B	VT-30-90002	VT-3	NRI/C
RBCCW	H-30-1-291	ISI-I-30-1	F-B	VT-30-90003	VT-3	NRI/C
RBCCW	H-30-1-292	ISI-I-30-1	F-B	VT-30-90004	VT-3	NRI/C
RBCCW	H-30-1-390	ISI-I-30-1	F-B	VT-30-90005	VT-3	NRI/C
RBCCW	H-30-1-59SA	ISI-I-30-1	F-B	VT-30-90006	VT-3	NRI/C
RBCCW	H-30-1-60SR	ISI-I-30-1	F-B	VT-30-90007	VT-3	NRI/C
RBCCW	H-30-1-61SA	ISI-I-30-1	F-B	VT-30-90008	VT-3	NRI/C
RBCCW	H-30-1-62SA	ISI-I-30-1	F-B	VT-30-90009	VT-3	NRI/C
RBCCW	H-30-1-12SA	ISI-I-30-1	F-B	VT-30-90010	VT-3	NCR 90-45
RBCCW	H-30-1-7SA	ISI-I-30-1	F-B	VT-30-90011	VT-3	NRI/C
RBCCW	H-30-1325SP	ISI-I-30-2	F-B	VT-30-90012	VT-3	NRI/C
RBCCW	H-30-1-1SA	ISI-I-30-1	F-B	VT-30-90014	VT-3	NRI/C
RBCCW	H-30-27SA	ISI-I-30-2	F-B	VT-30-90015	VT-3	NRI/C
RBCCW	H-30-1-48	ISI-I-30-2	F-B	VT-30-90016	VT-3 VT-3	NRC 90-44 NRC 90-44
RBCCW	H-30-1-30SA	ISI-I-30-2	F-B	VT-30-90017	VT-3	NRI/C
RBCCW	H-30-1-346	ISI-I-30-2	F-B	VT-30-90018	VT-3	NRI/C
RBCCW	H-30-1-29SA	ISI-I-30-2	F-B	VT-30-90019	VT-3	NRI/C
RBCCW	H-30-1-74SA	ISI-I-30-2	F-B	VT-30-90020	VT-3	NRI/C

N No Recordable Indications
 C Complete Exam
 R Restricted Exam

SECTION 4.0

EXAMINATIONS PERFORMED DURING 1990 MID-CYCLE MAINTENANCE OUTAGE

<u>SYSTEM</u>	<u>COMPONENT</u>	<u>ISO</u>	<u>CAT</u>	<u>DATA SHEET</u>	<u>METHOD</u>	<u>RESULTS</u>
RCIC	H-13-1-12SA	ISI-I-13-1	F-B	VT-13-90001	VT-3	NCR 90-45
RCIC	H-13-1-42	ISI-I-13-1	F-B	VT-13-90004	VT-3	NRI/C
RCIC	H-13-1-25	ISI-1-13-2	F-B	VT-13-90008	VT-3	NCR 90-30
RCIC	H-13-1-26	ISI-I-13-2	F-B	VT-13-90009	VT-3	NRI/C
RECIRC	H-2-1-G1	ISI-I-2R-A	F-B	VT-2-90001	VT-3	NCR 90-35
RWCU	H-4-1-1	ISI-I-12-1	F-B	VT-12-90001	VT-3	NRI/C
RWCU	H-12-1-113	ISI-I-12-2	F-B	VT-12-90003	VT-3	NRI/C
RWCU	H-12-1-35G	ISI-I-12-2	F-B	VT-12-90006	VT-3	NRI/C
SBLC	H-11-1-21	ISI-I-11-1	F-B	VT-11-90001	VT-3	NRI/C
SBLC	H-11-1-22	ISI-I-11-1	F-B	VT-11-90002	VT-3	NRI/C
SBLC	H-11-1-23	ISI-I-11-1	F-B	VT-11-90003	VT-3	NRI/C
S	H-11-1-24	ISI-I-11-1	F-B	VT-11-90004	VT-3	NRI/C
SBLC	H-11-1-25	ISI-I-11-1	F-B	VT-11-90005	VT-3	NCR 90-33
SBLC	H-11-1-26	ISI-I-11-1	F-B	VT-11-90006	VT-3	NRI/C
SBLC	H-11-1-31	ISI-1-11-1	F-B	VT-11-90007	VT-3	NRI/C
SBLC	H-11-1-36	ISI-I-11-1	F-B	VT-11-90008	VT-3	NRI/C
SBLC	H-11-1-37	ISI-I-11-1	F-B	VT-11-90009	VT-3	NRI/C
SBLC	H-11-1-40	ISI-I-11-1	F-B	VT-11-90010	VT-3	NRI/C
SSW	H-29-1-1321SA	ISI-I-29-1	F-B	VT-29-91020 VT-29-90001	VT-3	NRI/C NRI/C
CACS	H-45-1-5	ISI-I-50-1	F-C	VT-45-90001	VT-3 VT-4	NRI/C NRI/C
CACS	H-45-1-6	ISI-I-50-1	F-C	VT-45-90002	VT-3 VT-4	NRI/C NRI/C
FW	H-6-1-68	ISI-I-6-1	F-C	VT-6-90001	VT-3	NRI/C
M ^c	H-1-1-29	ISI-I-1-1	F-C	VT-1-90001	VT-3	NCR 90-23

NRI = No Recordable Indications
 C = Complete Exam
 R = Restricted Exam

SECTION 4.0

EXAMINATIONS PERFORMED DURING 1990 MID-CYCLE MAINTENANCE OUTAGE

<u>SYSTEM</u>	<u>COMPONENT</u>	<u>ISO</u>	<u>CAT</u>	<u>DATA SHEET</u>	<u>METHOD</u>	<u>RESULTS</u>
MS	H-1-1-36	ISI-I-1-1	F-C	VT-1-90002	VT-3	NCR 90-22
RCIC	H-13-1-43	ISI-I-13-1	F-C	VT-13-90005	VT-3	NRI/C
RCIC	H-13-1-44	ISI-I-13-1	F-C	VT-13-90006	VT-3 VT-4	NCR 90-31 NCR/90-31
RCIC	H-13-6SH	ISI-I-13-1	F-C	VT-13-90007	VT-3	NRI/C
RCIC	H-13-1-2SR	ISI-I-13-2	F-C	VT-13-90010	VT-3	NCR 90-29
RCIC	H-13-1-29	ISI-I-13-3	F-C	VT-13-90011	VT-3	NRI/C
RCIC	H-13-1-33	ISI-I-13-3	F-C	VT-13-90012	VT-3 VT-4	NRI/C NRI/C
RWCU	H-12-1-1243	ISI-I-12-2	F-C	VT-12-90004	VT-3	NRI/C
RWCU	H-12-1-1258	ISI-I-12-2	F-C	VT-12-90005	VT-3	NRI/C

SCOPE EXPANSION EXAMINATIONS

MS	H-1-1-X7A	ISI-I-1-1	F-B	VT-1-90009	VT-3	NRI/C
MS	H-1-1-X7C	ISI-I-1-1	F-B	VT-1-90010	VT-3	NRI/C
MS	H-1-1-HB3	ISI-I-1-1	F-C	VT-1-90011	VT-3 VT-4	NRI/C NRI/C
MS	H-1-1-36	ISI-I-1-1	F-C	VT-1-90002	VT-3	NCR 90-22

NRI = No Recordable Indications
 C = Complete Exam
 R = Restricted Exam

SECTION 5.0

CERTIFICATION RECORDS FOR
STONE AND WEBSTER CORPORATION

INSPECTION PERSONNEL

DURING 1990

MID-CYCLE OUTAGE

CERTIFICATE OF QUALIFICATION

WE HEREBY CERTIFY THAT BRISTER, JAMES R. IS
NAME
 QUALIFIED TO PERFORM TEST, INSPECTIONS, AND EXAMINATIONS AS LISTED BELOW.

THIS CERTIFICATION IS BASED UPON RECORD OF EXPERIENCE, EDUCATION, AND TRAINING, AND WRITTEN OR ORAL EXAMINATION OR PROFICIENCY DEMONSTRATION (PRACTICAL EXAMINATION), AS INDICATED BELOW.

SUPPORTING DOCUMENTS ARE MAINTAINED BY STONE & WEBSTER ENGINEERING CORPORATION AND MAY BE EXAMINED BY AUTHORIZED CLIENT, REGULATORY AND INSURANCE COMPANY REPRESENTATIVES.

SIGNED: [Signature] 2/23/90
LEVEL III NDT EXAMINER DATE
 SIGNED: [Signature] 2/23/90
CERTIFYING QDM DATE

DISCIPLINE	LEVEL	REFERENCE STANDARD	DATE CERTIFIED	CERTIFIED BY (METHOD)	PERIODIC EVALUATION		
					FIRST SIGN/DATE	SECOND SIGN/DATE	THIRD SIGN/DATE
VISUAL EXAMINATION	II	QAD-2.5	2/23/90	Exam			
VT 1 & 3							

REMARKS: The above individual has satisfactorily completed the training and certification requirements of QAD 2.5.
 Effective period of certification: from 2/23/90 to 2/23/93.

CERTIFICATE OF QUALIFICATION

WE HEREBY CERTIFY THAT BRISTER, JAMES R. IS
NAME
 QUALIFIED TO PERFORM TEST, INSPECTIONS, AND EXAMINATIONS AS LISTED BELOW.

THIS CERTIFICATION IS BASED UPON RECORD OF EXPERIENCE, EDUCATION, AND TRAINING, AND WRITTEN OR ORAL EXAMINATION OR PROFICIENCY DEMONSTRATION (PRACTICAL EXAMINATION), AS INDICATED BELOW.

SUPPORTING DOCUMENTS ARE MAINTAINED BY STONE & WEBSTER ENGINEERING CORPORATION AND MAY BE EXAMINED BY AUTHORIZED CLIENT, REGULATORY AND INSURANCE COMPANY REPRESENTATIVES.

SIGNED: [Signature] 2/23/90
LEVEL III NDT EXAMINER DATE
 SIGNED: [Signature] 2/23/90
CERTIFYING QDM DATE

DISCIPLINE	LEVEL	REFERENCE STANDARD	DATE CERTIFIED	CERTIFIED BY (METHOD)	PERIODIC EVALUATION		
					FIRST SIGN/DATE	SECOND SIGN/DATE	THIRD SIGN/DATE
ULTRASONIC TESTING	II	QAD-2.5	2/23/90	Exam			

REMARKS: The above individual has satisfactorily completed the training and certification requirements of QAD 2.5.
 Effective period of certification: from 2/23/90 to 2/21/93.

STONE & WEBSTER ENGINEERING CORPORATION
QUALITY ASSURANCE DEPARTMENT
EYE TEST CERTIFICATION

TEST WITHOUT GLASSES

NEAR DISTANCE

FAR DISTANCE

- 1. (COVER LEFT EYE) RIGHT EYE O.D.
- 2. (COVER RIGHT EYE) LEFT EYE O.S.
- 3. BOTH EYES O.U.

_____	_____
_____	_____
_____	_____

TEST WITH GLASSES

TYPE OF GLASSES USED PRESCRIPTION (EXAMPLE, READING, BIFOCAL)

NEAR DISTANCE

FAR DISTANCE

- 1. (COVER LEFT EYE) RIGHT EYE O.D.
- 2. (COVER RIGHT EYE) LEFT EYE O.S.
- 3. BOTH EYES O.U.

J1 = <u>20/20</u>	<u>20/20</u>
J1 = <u>20/20</u>	<u>20/20</u>
J1 = <u>20/20</u>	<u>20/20</u>

TYPE OF TEST (NEAR DISTANCE) JAEGER

TYPE OF TEST (FAR DISTANCE) SNEIEN

TYPE OF TEST (COLOR) ISHIHARA PLATES READ CORRECTLY

HAS THE APPLICANT DISTINGUISHED THE APPROPRIATE RANGE AND NUMBER OF COLOR PLATES TO VERIFY NORMAL COLOR VISION? YES

WHAT COLOR(S) IS THE APPLICANT DEFICIENT IN SEEING? NONE

REMARKS: CERTIFIED WEARING LENSES

I CERTIFY THAT THE RESULTS RECORDED ABOVE ARE THOSE FROM THE VISION EXAMINATION GIVEN TO (NAME) JAMES R. BRISTER ON (DATE) 2/21/90

SIGNED Kathleen M. Duwanna TITLE OCCUPATIONAL HEALTH
DOCTOR OR RN

WITH THE TEST RESULTS RECORDED ABOVE, THE AFOREMENTIONED PERSONNEL HAS PASSED/FAILED THE EXAMINATION FOR VISION CERTIFICATION.

SIGNED J. E. Walker TITLE CHIEF ENGR QA/NOT
ODM

CERTIFICATE OF QUALIFICATION

WE HEREBY CERTIFY THAT ROBERT J. NUWASH IS
NAME
 QUALIFIED TO PERFORM TEST, INSPECTIONS, AND EXAMINATIONS AS LISTED BELOW.

THIS CERTIFICATION IS BASED UPON RECORD OF EXPERIENCE, EDUCATION, AND TRAINING, AND WRITTEN OR ORAL EXAMINATION OR PROFICIENCY DEMONSTRATION (PRACTICAL EXAMINATION), AS INDICATED BELOW.

SUPPORTING DOCUMENTS ARE MAINTAINED BY STONE & WEBSTER ENGINEERING CORPORATION AND MAY BE EXAMINED BY AUTHORIZED CLIENT, REGULATORY AND INSURANCE COMPANY REPRESENTATIVES.

SIGNED: [Signature] 1/20/89
LEVEL III NDT EXAMINER DATE
 SIGNED: [Signature] 1/20/89
CERTIFYING QDM DATE

DISCIPLINE	LEVEL	REFERENCE STANDARD	DATE CERTIFIED	CERTIFIED BY (METHOD)	PERIODIC EVALUATION		
					FIRST SIGN/DATE	SECOND SIGN/DATE	THIRD SIGN/DATE
Liquid Penetrant Testing	II	QAD 2.5	1/20/89	Exam			

REMARKS: Recertification
 Effective period of certification 1/20/89-1/17/92

CERTIFICATE OF QUALIFICATION

WE HEREBY CERTIFY THAT ROBERT J. NUWASH IS
NAME

QUALIFIED TO PERFORM TEST, INSPECTIONS, AND EXAMINATIONS AS LISTED BELOW.

THIS CERTIFICATION IS BASED UPON RECORD OF EXPERIENCE, EDUCATION, AND TRAINING, AND WRITTEN OR ORAL EXAMINATION OR PROFICIENCY DEMONSTRATION (PRACTICAL EXAMINATION), AS INDICATED BELOW.

SUPPORTING DOCUMENTS ARE MAINTAINED BY STONE & WEBSTER ENGINEERING CORPORATION AND MAY BE EXAMINED BY AUTHORIZED CLIENT, REGULATORY AND INSURANCE COMPANY REPRESENTATIVES.

SIGNED: *[Signature]* 1/17/89
LEVEL III NDT EXAMINER DATE

SIGNED: *[Signature]* 1/17/89
CERTIFYING QDM DATE

DISCIPLINE	LEVEL	REFERENCE STANDARD	DATE CERTIFIED	CERTIFIED BY (METHOD)	PERIODIC EVALUATION		
					FIRST SIGN/DATE	SECOND SIGN/DATE	THIRD SIGN/DATE
Magnetic Particle Testing	II	QAD 2.5	1/17/89	Exam			

REMARKS: Recertification
 Effective period of certification 1/17/89-1/16/92

TONE & WEBSTER ENGINEERING CORPORATION
QUALITY ASSURANCE DEPARTMENT
EYE TEST CERTIFICATION

N/A

TEST WITHOUT GLASSES

NEAR DISTANCE

FAR DISTANCE

- 1. (COVER LEFT EYE) RIGHT EYE O.D.
- 2. (COVER RIGHT EYE) LEFT EYE O.S.
- 3. BOTH EYES O.U.

_____	_____
_____	_____
_____	_____

TEST WITH GLASSES

TYPE OF GLASSES USED CONTACT LENSES (EXAMPLE, READING, BIFOCAL)

NEAR DISTANCE

FAR DISTANCE

- 1. (COVER LEFT EYE) RIGHT EYE O.D.
- 2. (COVER RIGHT EYE) LEFT EYE O.S.
- 3. BOTH EYES O.U.

<u>J-1</u>	<u>20/20</u>	<u>20/20</u>
<u>J-1</u>	<u>20/20</u>	<u>20/20</u>
<u>J-1</u>	<u>20/20</u>	<u>20/20</u>

TYPE OF TEST (NEAR DISTANCE)

JAEGER

TYPE OF TEST (FAR DISTANCE)

SNEIEN CHART

TYPE OF TEST (COLOR)

ISHIHARA PLATES 1-20

HAS THE APPLICANT DISTINGUISHED THE APPROPRIATE RANGE AND NUMBER OF COLOR PLATES TO VERIFY NORMAL COLOR VISION? YES

WHAT COLOR(S) IS THE APPLICANT DEFICIENT IN SEEING? NONE

REMARKS: CERTIFIED WEARING LENSES

I CERTIFY THAT THE RESULTS RECORDED ABOVE ARE THOSE FROM THE VISION EXAMINATION GIVEN TO (NAME) ROBERT J. NUWASH ON (DATE) 12/14/89

SIGNED K.M. Devanna RN TITLE OCCUPATIONAL HEALTH
DOCTOR OR RN

WITH THE TEST RESULTS RECORDED ABOVE, THE AFOREMENTIONED PERSONNEL HAS PASSED FAILED THE EXAMINATION FOR VISION CERTIFICATION.

SIGNED J.P. Walker TITLE CHIEF ENGINEER
QDM B/A NDT

STONE & WEBSTER ENGINEERING CORPORATION



245 SUMMER STREET, BOSTON, MASSACHUSETTS

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CONSULTING
ENGINEERING

CERTIFICATE OF QUALIFICATION

WE HEREBY CERTIFY THAT EMPLOYEE R. NUWASH IS
NAME
QUALIFIED TO PERFORM THE DUTIES AND ASSUME THE RESPONSIBILITIES OF:
VISUAL EXAMINER, ASME-XI, VT 1-4 LEVEL II

THIS CERTIFICATION IS BASED UPON THE FOLLOWING, AS CHECKED:

- 1. * RECORD OF EXPERIENCE, EDUCATION, AND TRAINING
- 2. * WRITTEN OR ORAL EXAMINATION
- 3. * PROFICIENCY DEMONSTRATION (PRACTICAL EXAMINATION)

SUPPORTING DOCUMENTS ARE MAINTAINED BY STONE & WEBSTER ENGINEERING CORPORATION AND MAY BE EXAMINED BY AUTHORIZED CLIENT, REGULATORY AND INSURANCE COMPANY REPRESENTATIVES.

SIGNED: NA
SR QC SITE DATE
REPRESENTATIVE /
PQA DISTRICT MANAGER

SIGNED: John M. Cause 1/13/88
LEVEL III NDT EXAMINER / DATE
SIGNED: J. L. Wilton 1-13-88
CERTIFYING QDM DATE

EFFECTIVE PERIOD OF CERTIFICATION: FROM 1-13-88 TO 1/6/91

REMARKS: The above individual has satisfactorily completed the training, examination and certification requirements of Q.A.D.-2.5.

CERTIFICATE OF QUALIFICATION

WE HEREBY CERTIFY THAT ROBERT J. NUWASH IS
NAME
 QUALIFIED TO PERFORM TEST, INSPECTIONS, AND EXAMINATIONS AS LISTED BELOW.

THIS CERTIFICATION IS BASED UPON RECORD OF EXPERIENCE, EDUCATION, AND TRAINING, AND WRITTEN OR ORAL EXAMINATION OR PROFICIENCY DEMONSTRATION (PRACTICAL EXAMINATION), AS INDICATED BELOW.

SUPPORTING DOCUMENTS ARE MAINTAINED BY STONE & WEBSTER ENGINEERING CORPORATION AND MAY BE EXAMINED BY AUTHORIZED CLIENT, REGULATORY AND INSURANCE COMPANY REPRESENTATIVES.

SIGNED: [Signature] 7/17/89
LEVEL III NDT EXAMINER DATE
 SIGNED: [Signature] 7/17/89
CERTIFYING QDM DATE

DISCIPLINE	LEVEL	REFERENCE STANDARD	DATE CERTIFIED	CERTIFIED BY (METHOD)	PERIODIC EVALUATION		
					FIRST SIGN/DATE	SECOND SIGN/DATE	THIRD SIGN/DATE
ULTRASONIC TESTING	III	QAD 2.5	7/17/89	Exam			

REMARKS: The above individual has satisfactorily completed the training and certification requirements of QAD 2.5.
 Effective period of certification 7/17/89 to 7/14/92. ⁹⁴ [Signature] 7/17/89

CERTIFICATE OF QUALIFICATION

WE HEREBY CERTIFY THAT MOLL, ALAN R. IS
NAME
 QUALIFIED TO PERFORM TEST, INSPECTIONS, AND EXAMINATIONS AS LISTED BELOW.

THIS CERTIFICATION IS BASED UPON RECORD OF EXPERIENCE, EDUCATION, AND TRAINING, AND WRITTEN OR ORAL EXAMINATION OR PROFICIENCY DEMONSTRATION (PRACTICAL EXAMINATION), AS INDICATED BELOW.

SUPPORTING DOCUMENTS ARE MAINTAINED BY STONE & WEBSTER ENGINEERING CORPORATION AND MAY BE EXAMINED BY AUTHORIZED CLIENT, REGULATORY AND INSURANCE COMPANY REPRESENTATIVES.

SIGNED: *Alan R. Moll* 2/23/90
LEVEL III NDT EXAMINER DATE
 SIGNED: *J. H. Wilh* 2/23/90
CERTIFYING QDM DATE

DISCIPLINE	LEVEL	REFERENCE STANDARD	DATE CERTIFIED	CERTIFIED BY (METHOD)	PERIODIC EVALUATION		
					FIRST SIGN/DATE	SECOND SIGN/DATE	THIRD SIGN/DATE
VISUAL EXAMINATION	II	QAD-2.5	2/23/90	Exam			
VT 1, 3							

REMARKS: The above individual has satisfactorily completed the training and certification requirements of QAD 2.5.
 Effective period of certification: from 2/23/90 to 2/23/93.

CERTIFICATE OF QUALIFICATION

WE HEREBY CERTIFY THAT MOLL, ALAN R. IS
NAME
 QUALIFIED TO PERFORM TEST, INSPECTIONS, AND EXAMINATIONS AS LISTED BELOW.

THIS CERTIFICATION IS BASED UPON RECORD OF EXPERIENCE, EDUCATION, AND TRAINING, AND WRITTEN OR ORAL EXAMINATION OR PROFICIENCY DEMONSTRATION (PRACTICAL EXAMINATION), AS INDICATED BELOW.

SUPPORTING DOCUMENTS ARE MAINTAINED BY STONE & WEBSTER ENGINEERING CORPORATION AND MAY BE EXAMINED BY AUTHORIZED CLIENT, REGULATORY AND INSURANCE COMPANY REPRESENTATIVES.

SIGNED: *Alan R. Moll* 2/23/90
LEVEL III NDT EXAMINER DATE
 SIGNED: *J. E. Wilkin* 2/23/90
CERTIFYING QDM DATE

DISCIPLINE	LEVEL	REFERENCE STANDARD	DATE CERTIFIED	CERTIFIED BY (METHOD)	PERIODIC EVALUATION		
					FIRST SIGN/DATE	SECOND SIGN/DATE	THIRD SIGN/DATE
LIQUID PENETRANT TESTING	II	QAD-2.5	2/23/90	Exam			

REMARKS: The above individual has satisfactorily completed the training and certification requirements of QAD 2.5.
 Effective period of certification: from 2/23/90 to 2/21/93.

CERTIFICATE OF QUALIFICATION

WE HEREBY CERTIFY THAT MOLL, ALAN R. IS
NAME
 QUALIFIED TO PERFORM TEST, INSPECTIONS, AND EXAMINATIONS AS LISTED BELOW.

THIS CERTIFICATION IS BASED UPON RECORD OF EXPERIENCE, EDUCATION, AND TRAINING, AND WRITTEN OR ORAL EXAMINATION OR PROFICIENCY DEMONSTRATION (PRACTICAL EXAMINATION), AS INDICATED BELOW.

SUPPORTING DOCUMENTS ARE MAINTAINED BY STONE & WEBSTER ENGINEERING CORPORATION AND MAY BE EXAMINED BY AUTHORIZED CLIENT, REGULATORY AND INSURANCE COMPANY REPRESENTATIVES.

SIGNED: *Alan R. Moll* 2/23/90
LEVEL III NDT EXAMINER DATE

SIGNED: *J. L. Walker* 2/23/90
CERTIFYING QDM DATE

DISCIPLINE	LEVEL	REFERENCE STANDARD	DATE CERTIFIED	CERTIFIED BY (METHOD)	PERIODIC EVALUATION		
					FIRST SIGN/DATE	SECOND SIGN/DATE	THIRD SIGN/DATE
MAGNETIC PARTICLE TESTING	II	QAD-2.5	2/23/90	Exam			

REMARKS: The above individual has satisfactorily completed the training and certification requirements of QAD 2.5.
 Effective period of certification: from 2/23/90 to 2/21/93.

STONE & WEBSTER ENGINEERING CORPORATION
QUALITY ASSURANCE DEPARTMENT
EYE TEST CERTIFICATION

TEST WITHOUT GLASSES

NEAR DISTANCE

FAR DISTANCE

1. (COVER LEFT EYE) RIGHT EYE O.D.

2. (COVER RIGHT EYE) LEFT EYE O.S.

3. BOTH EYES O.U.

TEST WITH GLASSES

TYPE OF GLASSES USED see below (EXAMPLE, READING, BIFOCAL)

NEAR DISTANCE

FAR DISTANCE

1. (COVER LEFT EYE) RIGHT EYE O.D.

J 1

20/20

20/20

2. (COVER RIGHT EYE) LEFT EYE O.S.

J 1

20/20

20/20

3. BOTH EYES O.U.

J 1

20/20

20/20

TYPE OF TEST (NEAR DISTANCE) JAEGER

TYPE OF TEST (FAR DISTANCE) SNELEN

TYPE OF TEST (COLOR) T S H I H A R A

HAS THE APPLICANT DISTINGUISHED THE APPROPRIATE RANGE AND NUMBER OF COLOR PLATES TO VERIFY NORMAL COLOR VISION? YES

WHAT COLOR(S) IS THE APPLICANT DEFICIENT IN SEEING? NONE

REMARKS: CERTIFIED WEARING CONTACT LENSES
HAS EYE GLASSES

I CERTIFY THAT THE RESULTS RECORDED ABOVE ARE THOSE FROM THE VISION EXAMINATION

GIVEN TO (NAME) ALAN R. MILL ON (DATE) 2/22/90

SIGNED Kathleen M. Duran RN TITLE OCCUPATIONAL HEALTH
DOCTOR OR RN

WITH THE TEST RESULTS RECORDED ABOVE, THE AFOREMENTIONED PERSONNEL HAS PASSED FAILED THE EXAMINATION FOR VISION CERTIFICATION.

SIGNED [Signature] TITLE Asst. mgr. F&C Div.
QDM

CERTIFICATE OF QUALIFICATION

WE HEREBY CERTIFY THAT EDWARD H. DIEM IS
NAME
 QUALIFIED TO PERFORM TEST, INSPECTIONS, AND EXAMINATIONS AS LISTED BELOW.

THIS CERTIFICATION IS BASED UPON RECORD OF EXPERIENCE, EDUCATION, AND TRAINING, AND WRITTEN OR ORAL EXAMINATION OR PROFICIENCY DEMONSTRATION (PRACTICAL EXAMINATION), AS INDICATED BELOW.

SUPPORTING DOCUMENTS ARE MAINTAINED BY STONE & WEBSTER ENGINEERING CORPORATION AND MAY BE EXAMINED BY AUTHORIZED CLIENT, REGULATORY AND INSURANCE COMPANY REPRESENTATIVES.

SIGNED: *Ed Diem* 9/21/89
LEVEL III NDT EXAMINER DATE
 SIGNED: *[Signature]* 9-21-89
CERTIFYING QDM DATE

DISCIPLINE	LEVEL	REFERENCE STANDARD	DATE CERTIFIED	CERTIFIED BY (METHOD)	PERIODIC EVALUATION		
					FIRST	SECOND	THIRD
					SIGN/DATE	SIGN/DATE	SIGN/DATE
RADIOGRAPHIC TESTING	III	QAD-2.5	9/21/89	Exam			

REMARKS: The above individual has satisfactorily completed the training and certification requirements of QAD-2.5.
 Effective period of certification: 9/21/89 to 8/31/94

CERTIFICATE OF QUALIFICATION

WE HEREBY CERTIFY THAT EDWARD H. DIEM IS
NAME
 QUALIFIED TO PERFORM TEST, INSPECTIONS, AND EXAMINATIONS AS LISTED BELOW.

THIS CERTIFICATION IS BASED UPON RECORD OF EXPERIENCE, EDUCATION, AND TRAINING, AND WRITTEN OR ORAL EXAMINATION OR PROFICIENCY DEMONSTRATION (PRACTICAL EXAMINATION), AS INDICATED BELOW.

SUPPORTING DOCUMENTS ARE MAINTAINED BY STONE & WEBSTER ENGINEERING CORPORATION AND MAY BE EXAMINED BY AUTHORIZED CLIENT, REGULATORY AND INSURANCE COMPANY REPRESENTATIVES.

SIGNED: *WACIL* 11/20/89
LEVEL III NOT EXAMINER DATE

SIGNED: *[Signature]* 11-20-89
CERTIFYING QDM DATE

DISCIPLINE	LEVEL	REFERENCE STANDARD	DATE CERTIFIED	CERTIFIED BY (METHOD)	PERIODIC EVALUATION		
					FIRST SIGN/DATE	SECOND SIGN/DATE	THIRD SIGN/DATE
MAGNETIC PARTICLE TESTING	III	QAD-2.5	11/20/89	Exam			

REMARKS: The above individual has satisfactorily completed the training and certification requirements of QAD-2.5. Effective period of certification 11/20/89-9/21/94.

CERTIFICATE OF QUALIFICATION

WE HEREBY CERTIFY THAT EDWARD H. DIEM IS
NAME
 QUALIFIED TO PERFORM TEST, INSPECTIONS, AND EXAMINATIONS AS LISTED BELOW.

THIS CERTIFICATION IS BASED UPON RECORD OF EXPERIENCE, EDUCATION, AND TRAINING, AND WRITTEN OR ORAL EXAMINATION OR PROFICIENCY DEMONSTRATION (PRACTICAL EXAMINATION), AS INDICATED BELOW.

SUPPORTING DOCUMENTS ARE MAINTAINED BY STONE & WEBSTER ENGINEERING CORPORATION AND MAY BE EXAMINED BY AUTHORIZED CLIENT, REGULATORY AND INSURANCE COMPANY REPRESENTATIVES.

SIGNED: *H. A. Hill* 3/1/89
LEVEL III NDT EX/MINER DATE
 SIGNED: *J. E. Walker* 8/17/89
CERTIFYING QDM DATE

DISCIPLINE	LEVEL	REFERENCE STANDARD	DATE CERTIFIED	CERTIFIED BY (METHOD)	PERIODIC EVALUATION		
					FIRST SIGN/DATE	SECOND SIGN/DATE	THIRD SIGN/DATE
VISUAL EXAMINATION	II	QAD-2.5	8/17/89	Exam			
SME XI, VT1-4							

REMARKS: The above individual has satisfactorily completed the training and certification requirements of QAD-2.5.
 Effective period of certification 8/17/89 to 8/17/92.

STONE & WEBSTER ENGINEERING CORPORATION



245 SUMMER STREET, BOSTON, MASSACHUSETTS

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ENGINEERING

CERTIFICATE OF QUALIFICATION

WE HEREBY CERTIFY THAT EMPLOYEE EDWARD M. DIEM IS
NAME
QUALIFIED TO PERFORM THE DUTIES AND ASSUME THE RESPONSIBILITIES OF:
LEVEL II EXAMINER-ULTRASONIC THICKNESS MEASUREMENT.

THIS CERTIFICATION IS BASED UPON THE FOLLOWING, AS CHECKED:

- 1. * RECORD OF EXPERIENCE, EDUCATION, AND TRAINING
- 2. * WRITTEN OR ORAL EXAMINATION
- 3. * PROFICIENCY DEMONSTRATION (PRACTICAL EXAMINATION)

SUPPORTING DOCUMENTS ARE MAINTAINED BY STONE & WEBSTER ENGINEERING CORPORATION AND MAY BE EXAMINED BY AUTHORIZED CLIENT, REGULATORY AND INSURANCE COMPANY REPRESENTATIVES.

SIGNED: _____ DATE _____
SR QC SITE REPRESENTATIVE /
PQA DISTRICT MANAGER

SIGNED: J.A. Cell 3/25/88
LEVEL III NDT EXAMINER DATE

SIGNED: J.C. Wilson 3/25/88
CERTIFYING QDM DATE

EFFECTIVE PERIOD OF CERTIFICATION: FROM 3/25/88 TO 3/23/91

REMARKS:

The above individual has satisfactorily completed the training and certification requirements of QAD-2.5.

STONE & WEBSTER ENGINEERING CORPORATION



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CERTIFICATE OF QUALIFICATION

WE HEREBY CERTIFY THAT EMPLOYEE EDWARD H. DIEM IS
NAME
QUALIFIED TO PERFORM THE DUTIES AND ASSUME THE RESPONSIBILITIES OF:
LEVEL III EXAMINER-VISUAL TESTING ASME III*

THIS CERTIFICATION IS BASED UPON THE FOLLOWING, AS CHECKED:

1. * RECORD OF EXPERIENCE, EDUCATION, AND TRAINING
2. * WRITTEN OR ORAL EXAMINATION
3. * PROFICIENCY DEMONSTRATION (PRACTICAL EXAMINATION)

SUPPORTING DOCUMENTS ARE MAINTAINED BY STONE & WEBSTER ENGINEERING CORPORATION AND MAY BE EXAMINED BY AUTHORIZED CLIENT, REGULATORY AND INSURANCE COMPANY REPRESENTATIVES.

SIGNED: _____
SR QC SITE REPRESENTATIVE / DATE
PQA DISTRICT MANAGER

SIGNED: [Signature] 3/21/88
LEVEL III NDT EXAMINER DATE

SIGNED: [Signature] 3/21/88
CERTIFYING QDM DATE

EFFECTIVE PERIOD OF CERTIFICATION: FROM 3/21/88 TO 3/15/91

REMARKS:

The above individual has satisfactorily completed the training and certification requirements of QAD-2.5.

RECERTIFICATION

Restricted to NF & NG

CERTIFICATE OF QUALIFICATION

WE HEREBY CERTIFY THAT EDWARD H. DIEM IS
NAME

QUALIFIED TO PERFORM TEST, INSPECTIONS, AND EXAMINATIONS AS LISTED BELOW.

THIS CERTIFICATION IS BASED UPON RECORD OF EXPERIENCE, EDUCATION, AND TRAINING, AND WRITTEN OR ORAL EXAMINATION OR PROFICIENCY DEMONSTRATION (PRACTICAL EXAMINATION), AS INDICATED BELOW.

SUPPORTING DOCUMENTS ARE MAINTAINED BY STONE & WEBSTER ENGINEERING CORPORATION AND MAY BE EXAMINED BY AUTHORIZED CLIENT, REGULATORY AND INSURANCE COMPANY REPRESENTATIVES.

SIGNED: *Ed Diem* 11/20/89
LEVEL III NON EXAMINER DATE
 SIGNED: *[Signature]* 11/20-89
CERTIFYING ODM DATE

DISCIPLINE	LEVEL	REFERENCE STANDARD	DATE CERTIFIED	CERTIFIED BY (METHOD)	PERIODIC EVALUATION		
					FIRST SIGN/DATE	SECOND SIGN/DATE	THIRD SIGN/DATE
LIQUID PENETRANT TESTING	III	QAD-2.5	11/20/89	Exam			

REMARKS: The above individual has satisfactorily completed the training and certification requirements of QAD-2.5. Effective period of certification 11/20/89-9/21/94.

STONE & WEBSTER ENGINEERING CORPORATION
QUALITY ASSURANCE DEPARTMENT
EYE TEST CERTIFICATION

TEST WITHOUT GLASSES

NEAR DISTANCE

FAR DISTANCE

1. (COVER LEFT EYE) RIGHT EYE O.D. _____

2. (COVER RIGHT EYE) LEFT EYE O.S. _____

3. BOTH EYES O.U. _____

TEST WITH GLASSES

TYPE OF GLASSES USED READING (EXAMPLE, READING, BIFOCAL)

NEAR DISTANCE

FAR DISTANCE

1. (COVER LEFT EYE) RIGHT EYE O.D. J1 = 20/20 20/20

2. (COVER RIGHT EYE) LEFT EYE O.S. J1 = 20/20 20/20

3. BOTH EYES O.U. J1 = 20/20 20/20

TYPE OF TEST (NEAR DISTANCE) JAEGER

TYPE OF TEST (FAR DISTANCE) SNEIEN

TYPE OF TEST (COLOR) ISHIHARA CHARTS

HAS THE APPLICANT DISTINGUISHED THE APPROPRIATE RANGE AND NUMBER OF COLOR PLATES TO VERIFY NORMAL COLOR VISION? YES

WHAT COLOR(S) IS THE APPLICANT DEFICIENT IN SEEING? NONE

REMARKS: _____

I CERTIFY THAT THE RESULTS RECORDED ABOVE ARE THOSE FROM THE VISION EXAMINATION GIVEN TO (NAME) EDWARD H. DIEM ON (DATE) 2/23/89 90

SIGNED Kathleen M. Burman RN TITLE OCCUPATIONAL HEALTH
DOCTOR OR RN

WITH THE TEST RESULTS RECORDED ABOVE, THE AFOREMENTIONED PERSONNEL HAS PASSED/FAILED THE EXAMINATION FOR VISION CERTIFICATION.

SIGNED J. L. Walker TITLE CHIEF ENGR.
QDM

CERTIFICATE OF QUALIFICATION

WE HEREBY CERTIFY THAT Victor Langley IS
NAME

QUALIFIED TO PERFORM TEST, INSPECTIONS, AND EXAMINATIONS AS LISTED BELOW.

THIS CERTIFICATION IS BASED UPON RECORD OF EXPERIENCE, EDUCATION, AND TRAINING, AND WRITTEN OR ORAL EXAMINATION OR PROFICIENCY DEMONSTRATION (PRACTICAL EXAMINATION), AS INDICATED BELOW.

SUPPORTING DOCUMENTS ARE MAINTAINED BY STONE & WEBSTER ENGINEERING CORPORATION AND MAY BE EXAMINED BY AUTHORIZED CLIENT, REGULATORY AND INSURANCE COMPANY REPRESENTATIVES.

SIGNED: *[Signature]* 9/22/88
LEVEL III TEST EXAMINER DATE
 SIGNED: *[Signature]* 9/22/88
CERTIFYING QDM DATE

DISCIPLINE	LEVEL	REFERENCE STANDARD	DATE CERTIFIED	CERTIFIED BY (METHOD)	PERIODIC EVALUATION		
					FIRST SIGN/DATE	SECOND SIGN/DATE	THIRD SIGN/DATE
LIQUID PENETRANT	II	QAD-2.5	9/22/88	EXAM	N/A	N/A	N/A

REMARKS:
 Effective period of Certification 9/22/88 to 9/7/91

CERTIFICATE OF QUALIFICATION

WE HEREBY CERTIFY THAT Victor Langley IS
NAME
 QUALIFIED TO PERFORM TEST, INSPECTIONS, AND EXAMINATIONS AS LISTED BELOW.

THIS CERTIFICATION IS BASED UPON RECORD OF EXPERIENCE, EDUCATION, AND TRAINING, AND WRITTEN OR ORAL EXAMINATION OR PROFICIENCY DEMONSTRATION (PRACTICAL EXAMINATION), AS INDICATED BELOW.

SUPPORTING DOCUMENTS ARE MAINTAINED BY STONE & WEBSTER ENGINEERING CORPORATION AND MAY BE EXAMINED BY AUTHORIZED CLIENT, REGULATORY AND INSURANCE COMPANY REPRESENTATIVES.

SIGNED: [Signature] 3/9/89
LEVEL III NDT EXAMINER DATE
 SIGNED: [Signature] 3/9/89
CERTIFYING QDM DATE

DISCIPLINE	LEV.	REFERENCE STANDARD	DATE CERTIFIED	CERTIFIED BY (METHOD)	PERIODIC EVALUATION		
					FIRST SIGN/DATE	SECOND SIGN/DATE	THIRD SIGN/DATE
Magnetic Particle Testing	III	DAD 2.5	3/9/89	Exam			

REMARKS: Recertification
 Effective period of certification from 3/9/89 to 2/8/94.

CERTIFICATE OF QUALIFICATION

WE HEREBY CERTIFY THAT Victor Langley IS
 QUALIFIED TO PERFORM TEST, INSPECTIONS, AND EXAMINATIONS AS LISTED BELOW.

THIS CERTIFICATION IS BASED UPON RECORD OF EXPERIENCE, EDUCATION, AND
 TRAINING, AND WRITTEN OR ORAL EXAMINATION OR PROFICIENCY DEMONSTRATION
 (PRACTICAL EXAMINATION), AS INDICATED BELOW.

SUPPORTING DOCUMENTS ARE MAINTAINED BY STONE & WEBSTER ENGINEERING
 CORPORATION AND MAY BE EXAMINED BY AUTHORIZED CLIENT, REGULATORY AND
 INSURANCE COMPANY REPRESENTATIVES.

SIGNED: [Signature] 3/9/89
 LEVEL III NDT EXAMINER DATE

SIGNED: [Signature] 3/9/89
 CERTIFYING QDM DATE

DISCIPLINE	LEVEL	REFERENCE STANDARD	DATE CERTIFIED	CERTIFIED BY (METHOD)	PERIODIC EVALUATION		
					FIRST SIGN/DATE	SECOND SIGN/DATE	THIRD SIGN/DATE
Ultrasonic Testing	III	QAD 2.5	3/9/89	Exam			

REMARKS: Recertification
 Effective period of certification 3/9/89 to 2/8/94.

STONE & WEBSTER ENGINEERING CORPORATION
QUALITY ASSURANCE DEPARTMENT
EYE TEST CERTIFICATION

TEST WITHOUT GLASSES

- 1. (COVER LEFT EYE) RIGHT EYE O.D.
- 2. (COVER RIGHT EYE) LEFT EYE O.S.
- 3. BOTH EYES O.U.

NEAR DISTANCE

FAR DISTANCE

J-1
J-1
J-1

20/20
20/20
20/20

TEST WITH GLASSES

TYPE OF GLASSES USED N/A (EXAMPLE, READING, BIFOCAL)

- 1. (COVER LEFT EYE) RIGHT EYE O.D.
- 2. (COVER RIGHT EYE) LEFT EYE O.S.
- 3. BOTH EYES O.U.

NEAR DISTANCE

FAR DISTANCE

N/A
N/A
N/A

TYPE OF TEST (NEAR DISTANCE) Jaeger - 1

TYPE OF TEST (FAR DISTANCE) Snellen

TYPE OF TEST (COLOR) S. Ishihara - 38 plate Ed. 1.1 1970

HAS THE APPLICANT DISTINGUISHED THE APPROPRIATE RANGE AND NUMBER OF COLOR PLATES TO VERIFY NORMAL COLOR VISION? 25/25

WHAT COLOR(S) IS THE APPLICANT DEFICIENT IN SEEING? N/A

REMARKS: _____

I CERTIFY THAT THE RESULTS RECORDED ABOVE ARE THOSE FROM THE VISION EXAMINATION GIVEN TO (NAME) Victor Landry ON (DATE) 1-25-90

SIGNED (Signature) (Authorized to administer eye exam) TITLE Asst. Mgt. F&C Division
DOCTOR OR RN

WITH THE TEST RESULTS RECORDED ABOVE, THE AFOREMENTIONED PERSONNEL HAS PASSED / FAILED THE EXAMINATION FOR VISION CERTIFICATION.

SIGNED (Signature) TITLE CHIEF ENGR.
QDM

CERTIFICATE OF QUALIFICATION

WE HEREBY CERTIFY THAT Gerald Collins IS
NAME
 QUALIFIED TO PERFORM TEST, INSPECTIONS, AND EXAMINATIONS AS LISTED BELOW.

THIS CERTIFICATION IS BASED UPON RECORD OF EXPERIENCE, EDUCATION, AND TRAINING, AND WRITTEN OR ORAL EXAMINATION OR PROFICIENCY DEMONSTRATION (PRACTICAL EXAMINATION), AS INDICATED BELOW.

SUPPORTING DOCUMENTS ARE MAINTAINED BY STONE & WEBSTER ENGINEERING CORPORATION AND MAY BE EXAMINED BY AUTHORIZED CLIENT, REGULATORY AND INSURANCE COMPANY REPRESENTATIVES.

SIGNED: [Signature] 4/14/89
LEVEL III NDT EXAMINER DATE
 SIGNED: [Signature] 4/14/89
CERTIFYING QDM DATE

DISCIPLINE	LEVEL	REFERENCE STANDARD	DATE CERTIFIED	CERTIFIED BY (METHOD)	PERIODIC EVALUATION		
					FIRST SIGN/DATE	SECOND SIGN/DATE	THIRD SIGN/DATE
ASME XI VISUAL VT1-4	II	QAD 2.5	4/14/89	Exam			

REMARKS: The above individual has satisfactorily completed the training and certification requirements of QAD 2.5. Effective period of certification from 4/14/89 to 3/28/92. Restricted from performing fiberscope examinations.

CERTIFICATE OF QUALIFICATION

WE HEREBY CERTIFY THAT Gerald Collins IS
NAME
 QUALIFIED TO PERFORM TEST, INSPECTIONS, AND EXAMINATIONS AS LISTED BELOW.

THIS CERTIFICATION IS BASED UPON RECORD OF EXPERIENCE, EDUCATION, AND TRAINING, AND WRITTEN OR ORAL EXAMINATION OR PROFICIENCY DEMONSTRATION (PRACTICAL EXAMINATION), AS INDICATED BELOW.

SUPPORTING DOCUMENTS ARE MAINTAINED BY STONE & WEBSTER ENGINEERING CORPORATION AND MAY BE EXAMINED BY AUTHORIZED CLIENT, REGULATORY AND INSURANCE COMPANY REPRESENTATIVES.

SIGNED: [Signature] 4/4/89
LEVEL III NDT EXAMINER DATE
 SIGNED: [Signature] 4/4/89
CERTIFYING QDM DATE

DISCIPLINE	LEVEL	REFERENCE STANDARD	DATE CERTIFIED	CERTIFIED BY (METHOD)	PERIODIC EVALUATION		
					FIRST SIGN/DATE	SECOND SIGN/DATE	THIRD SIGN/DATE
Magnetic Particle	II	QAD-2.5	4/3/89	Exam			

REMARKS: The above individual has satisfactorily completed the training and certification requirements of QAD-2.5.
 Effective period of certification 4/3/89 - 3/8/92

CERTIFICATE OF QUALIFICATION

WE HEREBY CERTIFY THAT Gerald Collins IS
NAME
 QUALIFIED TO PERFORM TEST, INSPECTIONS, AND EXAMINATIONS AS LISTED BELOW.

THIS CERTIFICATION IS BASED UPON RECORDS OF EXPERIENCE, EDUCATION, AND TRAINING, AND WRITTEN OR ORAL EXAMINATION OR PROFICIENCY DEMONSTRATION (PRACTICAL EXAMINATION), AS INDICATED BELOW.

SUPPORTING DOCUMENTS ARE MAINTAINED BY STONE & WEBSTER ENGINEERING CORPORATION AND MAY BE EXAMINED BY AUTHORIZED CLIENT, REGULATORY AND INSURANCE COMPANY REPRESENTATIVES.

SIGNED: [Signature] 4/4/89
LEVEL III NDT EXAMINER DATE
 SIGNED: [Signature] 4/4/89
CERTIFYING QDM DATE

DISCIPLINE	LEVEL	REFERENCE STANDARD	DATE CERTIFIED	CERTIFIED BY (METHOD)	PERIODIC EVALUATION		
					FIRST SIGN/DATE	SECOND SIGN/DATE	THIRD SIGN/DATE
Liquid Penetrant	II	QAD-2.5	4/5/89	Exam			

REMARKS: The above individual has satisfactorily completed the training and certification requirements of QAD-2.5.
 Effective period of certification 4/3/89 - 3/8/92.

CERTIFICATE OF QUALIFICATION

WE HEREBY CERTIFY THAT COLLINS, GERALD IS
NAME
 QUALIFIED TO PERFORM TEST, INSPECTIONS, AND EXAMINATIONS AS LISTED BELOW.

THIS CERTIFICATION IS BASED UPON RECORD OF EXPERIENCE, EDUCATION, AND TRAINING, AND WRITTEN OR ORAL EXAMINATION OR PROFICIENCY DEMONSTRATION (PRACTICAL EXAMINATION), AS INDICATED BELOW.

SUPPORTING DOCUMENTS ARE MAINTAINED BY STONE & WEBSTER ENGINEERING CORPORATION AND MAY BE EXAMINED BY AUTHORIZED CLIENT, REGULATORY AND INSURANCE COMPANY REPRESENTATIVES.

SIGNED: *[Signature]* 5/25/89
LEVEL III NDT EXAMINER DATE
 SIGNED: *[Signature]* 5/25/89
CERTIFYING QDM DATE

DISCIPLINE	LEVEL	REFERENCE STANDARD	DATE CERTIFIED	CERTIFIED BY (METHOD)	PERIODIC EVALUATION		
					FIRST SIGN/DATE	SECOND SIGN/DATE	THIRD SIGN/DATE
*ASME III VISUAL EXAMINATION	II	QAD-2.5	5/25/89	Exam			

REMARKS: The above individual has satisfactorily completed the training and certification requirements of QAD-2.5. *Restricted to NF & NG only. Effective period of certification 5/25/89-5/9/92.

SIONE & WEBSTER ENGINEERING CORPORATION
QUALITY ASSURANCE DEPARTMENT
EYE TEST CERTIFICATION

ALB

N/A

TEST WITHOUT GLASSES

NEAR DISTANCE

FAR DISTANCE

- 1. (COVER LEFT EYE) RIGHT EYE O.D.
- 2. (COVER RIGHT EYE) LEFT EYE O.S.
- 3. BOTH EYES O.U.

_____	_____
_____	_____
_____	_____

TEST WITH GLASSES

TYPE OF GLASSES USED

Bifocal

(EXAMPLE, READING, BIFOCAL)

- 1. (COVER LEFT EYE) RIGHT EYE O.D.
- 2. (COVER RIGHT EYE) LEFT EYE O.S.
- 3. BOTH EYES O.U.

NEAR DISTANCE

FAR DISTANCE

<u>J-1</u>	<u>20/25</u>
<u>J-1</u>	<u>20/25</u>
<u>J-1</u>	<u>20/20</u>

TYPE OF TEST (NEAR DISTANCE)

JAGER-1

TYPE OF TEST (FAR DISTANCE)

SNELLEN

TYPE OF TEST (COLOR)

ISHIHARA

HAS THE APPLICANT DISTINGUISHED THE APPROPRIATE RANGE AND NUMBER OF COLOR PLATES TO VERIFY NORMAL COLOR VISION? yes 25/25

WHAT COLOR(S) IS THE APPLICANT DEFICIENT IN SEEING? N/A

REMARKS: N/A

I CERTIFY THAT THE RESULTS RECORDED ABOVE ARE THOSE FROM THE VISION EXAMINATION GIVEN TO (NAME) GERALD COLLINS ON (DATE) 10-16-89

SIGNED

R.W. [Signature]
DOCTOR OF RN

TITLE

Sr FCC Engineer

WITH THE TEST RESULTS RECORDED ABOVE, THE AFOREMENTIONED PERSONNEL HAS PASSED FAILED THE EXAMINATION FOR VISION CERTIFICATION.

SIGNED

[Signature]
QDM

TITLE SR. SITE REPRESENTATIVE

STONE & WEBSTER ENGINEERING CORP.

COLOR TEST QUALIFICATION

NAME GERALD COLLINS DATE 10-16-89

COLOR VISION: The following numbers were distinguished on the Ishihara plates for testing color perception.

PLATE 1 12 ✓

PLATE 6 15 ✓

PLATE 11 97 ✓

PLATE 2 6 ✓

PLATE 7 24 ✓

PLATE 12 5 ✓

PLATE 3 8 ✓

PLATE 8 2 ✓

PLATE 13 16 ✓

PLATE 4 5 ✓

PLATE 9 6 ✓

PLATE 14 — ✓

PLATE 5 3 ✓

PLATE 10 45 ✓

PLATE 15 — ✓

PLATE 16 26 ✓

PLATE 21 ✓

PLATE 17 42 ✓

PLATE 22 ✓

PLATE 18 ✓

PLATE 23 — ✓

PLATE 19 ✓

PLATE 24 ✓

PLATE 20 ✓

PLATE 25 ✓

CERTIFICATE OF QUALIFICATION

WE HEREBY CERTIFY THAT Gerald Collins (NMI) IS
NAME

QUALIFIED TO PERFORM TEST, INSPECTIONS, AND EXAMINATIONS AS LISTED BELOW.

THIS CERTIFICATION IS BASED UPON RECORD OF EXPERIENCE, EDUCATION, AND TRAINING, AND WRITTEN OR ORAL EXAMINATION OR PROFICIENCY DEMONSTRATION (PRACTICAL EXAMINATION), AS INDICATED BELOW.

SUPPORTING DOCUMENTS ARE MAINTAINED BY STONE & WEBSTER ENGINEERING CORPORATION AND MAY BE EXAMINED BY AUTHORIZED CLIENT, REGULATORY AND INSURANCE COMPANY REPRESENTATIVES.

[Handwritten Signature]
2/16/89

SIGNED: _____
LEVEL III NOT EXAMINER DATE _____
 SIGNED: *[Handwritten Signature]* 2-16-89
CERTIFYING QDM DATE _____

DISCIPLINE	LEVEL	REFERENCE STANDARD	DATE CERTIFIED	CERTIFIED BY (METHOD)	PERIODIC EVALUATION		
					FIRST SIGN/DATE	SECOND SIGN/DATE	THIRD SIGN/DATE
Mechanical	II	310 Mechanical Equipment	2-6-89	1,2,3,4 & 6 <i>[Signature]</i>	10/26/89		
Mechanical	II	331 Piping Supports	2-6-89	1,2,3,4 & 6 <i>[Signature]</i>	10/26/89		
Mechanical	II	332 Piping Installation	2-6-89	1,2,3,4 & 6 <i>[Signature]</i>	10/26/89		
Mechanical	II	333 Pressure Testing	2-6-89	1,2,3,4 & 6 <i>[Signature]</i>	10/26/89		
Mechanical	II	370 Instruments and Controls	2-6-89	1,2,3,4 & 6 <i>[Signature]</i>	10/26/89		
Special Processes	II	520 Drilled-In Anchors	2-6-89	1,2,3,4 & 6 <i>[Signature]</i>	10/24/89		
Special Processes	II	561 Structural Weld Inspection	2-6-89	1,2,3,4,5 & 6 <i>[Signature]</i>	10/26/89		

REMARKS:

- 1-Experience
- 2-Education
- 3-Training
- 4-Written Exam

- 5-Oral Exam
- 6-Proficiency Demonstration

CERTIFICATE OF QUALIFICATION

WE HEREBY CERTIFY THAT Gerald Collins (NMI) IS
NAME

QUALIFIED TO PERFORM TEST, INSPECTIONS, AND EXAMINATIONS AS LISTED BELOW.

THIS CERTIFICATION IS BASED UPON RECORD OF EXPERIENCE, EDUCATION, AND TRAINING, AND WRITTEN OR ORAL EXAMINATION OR PROFICIENCY DEMONSTRATION (PRACTICAL EXAMINATION), AS INDICATED BELOW.

SUPPORTING DOCUMENTS ARE MAINTAINED BY STONE & WEBSTER ENGINEERING CORPORATION AND MAY BE EXAMINED BY AUTHORIZED CLIENT, REGULATORY AND INSURANCE COMPANY REPRESENTATIVES.

Plentz
2/6/89

SIGNED: _____
LEVEL II CERT EXAMINER DATE _____

SIGNED: *[Signature]*
CERTIFYING QDM DATE 2-16-89

DISCIPLINE	LEVEL	REFERENCE STANDARD	DATE CERTIFIED	CERTIFIED BY (METHOD)	PERIODIC EVALUATION		
					FIRST	SECOND	THIRD
					SIGN/DATE	SIGN/DATE	SIGN/DATE
Special Processes	II	562 Pipe Weld Inspection	2-6-89	1, 2, 3, 4, 5 & 6	<i>[Signature]</i> 10/24/89		

REMARKS:

1-Experience	5-Oral Exam
2-Education	6-Proficiency Demonstration
3-Training	
4-Written Exam	

CERTIFICATE OF QUALIFICATION

WE HEREBY CERTIFY THAT LYNN, JAMES H. IS
NAME
 QUALIFIED TO PERFORM TEST, INSPECTIONS, AND EXAMINATIONS AS LISTED BELOW.

THIS CERTIFICATION IS BASED UPON RECORD OF EXPERIENCE, EDUCATION, AND TRAINING AND WRITTEN OR ORAL EXAMINATION OR PROFICIENCY DEMONSTRATION (PRACTICAL EXAMINATION), AS INDICATED BELOW.

SUPPORTING DOCUMENTS ARE MAINTAINED BY STONE & WEBSTER ENGINEERING CORPORATION AND MAY BE EXAMINED BY AUTHORIZED CLIENT, REGULATORY AND INSURANCE COMPANY REPRESENTATIVES.

SIGNED: *[Signature]* 2/23/90
LEVEL III NDT EXAMINER DATE
 SIGNED: *[Signature]* 2/23/90
CERTIFYING QDM DATE

DISCIPLINE	LEVEL	REFERENCE STANDARD	DATE CERTIFIED	CERTIFIED BY (METHOD)	PERIODIC EVALUATION		
					FIRST SIGN/DATE	SECOND SIGN/DATE	THIRD SIGN/DATE
VISUAL EXAMINATION VT1,3	II	QAD-2.5	2/23/90	Exam			

REMARKS: The above individual has satisfactorily completed the training and certification requirements of QAD 2.5.
 Effective period of certification: from 2/23/90 to 2/23/93.

CERTIFICATE OF QUALIFICATION

WE HEREBY CERTIFY THAT LYNN, JAMES H. IS
NAME
 QUALIFIED TO PERFORM TEST, INSPECTIONS, AND EXAMINATIONS AS LISTED BELOW.

THIS CERTIFICATION IS BASED UPON RECORD OF EXPERIENCE, EDUCATION, AND TRAINING, AND WRITTEN OR ORAL EXAMINATION OR PROFICIENCY DEMONSTRATION (PRACTICAL EXAMINATION), AS INDICATED BELOW.

SUPPORTING DOCUMENTS ARE MAINTAINED BY STONE & WEBSTER ENGINEERING CORPORATION AND MAY BE EXAMINED BY AUTHORIZED CLIENT, REGULATORY AND INSURANCE COMPANY REPRESENTATIVES.

SIGNED: [Signature] 2/23/90
LEVEL III NDT EXAMINER DATE
 SIGNED: [Signature] 2/23/90
CERTIFYING QDM DATE

DISCIPLINE	LEVEL	REFERENCE STANDARD	DATE CERTIFIED	CERTIFIED BY (METHOD)	PERIODIC EVALUATION		
					FIRST SIGN/DATE	SECOND SIGN/DATE	THIRD SIGN/DATE
MAGNETIC PARTICLE TESTING	II	QAD-2.5	2/23/90	Exam			

REMARKS: The above individual has satisfactorily completed the training and certification requirements of QAD 2.5.
 Effective period of certification: from 2/23/90 to 2/21/93.

CERTIFICATE OF QUALIFICATION

WE HEREBY CERTIFY THAT LYNN, JAMES H. IS
NAME
 QUALIFIED TO PERFORM TEST, INSPECTIONS, AND EXAMINATIONS AS LISTED BELOW.

THIS CERTIFICATION IS BASED UPON RECORD OF EXPERIENCE, EDUCATION, AND TRAINING, AND WRITTEN OR ORAL EXAMINATION OR PROFICIENCY DEMONSTRATION (PRACTICAL EXAMINATION), AS INDICATED BELOW.

SUPPORTING DOCUMENTS ARE MAINTAINED BY STONE & WEBSTER ENGINEERING CORPORATION AND MAY BE EXAMINED BY AUTHORIZED CLIENT, REGULATORY AND INSURANCE COMPANY REPRESENTATIVES.

SIGNED: *[Signature]* 2/23/90
LEVEL III NDT EXAMINER DATE
 SIGNED: *[Signature]* 2/23/90
CERTIFYING QDM DATE

DISCIPLINE	LEVEL	REFERENCE STANDARD	DATE CERTIFIED	CERTIFIED BY (METHOD)	PERIODIC EVALUATION		
					FIRST SIGN/DATE	SECOND SIGN/DATE	THIRD SIGN/DATE
LIQUID PENETRANT TESTING	II	QAD-2.5	2/23/90	Exam			

REMARKS: The above individual has satisfactorily completed the training and certification requirements of QAD 2.5.
 Effective period of certification: from 2/23/90 to 2/21/93.

STONE & WEBSTER ENGINEERING CORPORATION
 QUALITY ASSURANCE DEPARTMENT
EYE TEST CERTIFICATION

TEST WITHOUT GLASSES

	NEAR DISTANCE	FAR DISTANCE
1. (COVER LEFT EYE) RIGHT EYE O.D.	_____	_____
2. (COVER RIGHT EYE) LEFT EYE O.S.	_____	_____
3. BOTH EYES O.U.	_____	_____

TEST WITH GLASSES

TYPE OF GLASSES USED _____ (EXAMPLE, READING, BIFOCAL)

	NEAR DISTANCE	FAR DISTANCE
1. (COVER LEFT EYE) RIGHT EYE O.D.	<u>20/20 J-1</u>	<u>20/20</u>
2. (COVER RIGHT EYE) LEFT EYE O.S.	<u>20/20 J-1</u>	<u>20/20</u>
3. BOTH EYES O.U.	<u>20/20 J-1</u>	<u>20/20</u>

TYPE OF TEST (NEAR DISTANCE) Jaeger 1

TYPE OF TEST (FAR DISTANCE) Sellen

TYPE OF TEST (COLOR) Ichihara 35 plate edition -

HAS THE APPLICANT DISTINGUISHED THE APPROPRIATE RANGE AND NUMBER OF COLOR PLATES TO VERIFY NORMAL COLOR VISION? 25/25

WHAT COLOR(S) IS THE APPLICANT DEFICIENT IN SEEING? None

REMARKS: _____

I CERTIFY THAT THE RESULTS RECORDED ABOVE ARE THOSE FROM THE VISION EXAMINATION GIVEN TO (NAME) James H. Lynn ON (DATE) 2-23-90

SIGNED [Signature] certified to administer the exam TITLE Asst. Mgr. F&E Div.
DOCTOR OR RN

WITH THE TEST RESULTS RECORDED ABOVE, THE AFOREMENTIONED PERSONNEL HAS PASSED/FAILED THE EXAMINATION FOR VISION CERTIFICATION.

SIGNED [Signature] TITLE CHIEF ENGR.
QDM

CERTIFICATE OF QUALIFICATION

WE HEREBY CERTIFY THAT BRATTON, EDDIE IS
NAME
 QUALIFIED TO PERFORM TEST, INSPECTIONS, AND EXAMINATIONS AS LISTED BELOW.

THIS CERTIFICATION IS BASED UPON RECORD OF EXPERIENCE, EDUCATION, AND TRAINING, AND WRITTEN OR ORAL EXAMINATION OR PROFICIENCY DEMONSTRATION (PRACTICAL EXAMINATION), AS INDICATED BELOW.

SUPPORTING DOCUMENTS ARE MAINTAINED BY STONE & WEBSTER ENGINEERING CORPORATION AND MAY BE EXAMINED BY AUTHORIZED CLIENT, REGULATORY AND INSURANCE COMPANY REPRESENTATIVES.

SIGNED: [Signature] 2/23/90
LEVEL III NDT EXAMINER DATE
 SIGNED: [Signature] 2/23/90
CERTIFYING QDM DATE

DISCIPLINE	LEVEL	REFERENCE STANDARD	DATE CERTIFIED	CERTIFIED BY (METHOD)	PERIODIC EVALUATION		
					FIRST SIGN/DATE	SECOND SIGN/DATE	THIRD SIGN/DATE
VISUAL EXAMINATION	II	QAD-2.5	2/23/90	Exam			
VT 1-4							

REMARKS: The above individual has satisfactorily completed the training and certification requirements of QAD 2.5.
 Effective period of certification: from 2/23/90 to 2/23/93.

CERTIFICATE OF QUALIFICATION

WE HEREBY CERTIFY THAT BRATTON, EDDIE IS
NAME
 QUALIFIED TO PERFORM TEST, INSPECTIONS, AND EXAMINATIONS AS LISTED BELOW.

THIS CERTIFICATION IS BASED UPON RECORD OF EXPERIENCE, EDUCATION, AND TRAINING, AND WRITTEN OR ORAL EXAMINATION OR PROFICIENCY DEMONSTRATION (PRACTICAL EXAMINATION), AS INDICATED BELOW.

SUPPORTING DOCUMENTS ARE MAINTAINED BY STONE & WEBSTER ENGINEERING CORPORATION AND MAY BE EXAMINED BY AUTHORIZED CLIENT, REGULATORY AND INSURANCE COMPANY REPRESENTATIVES.

SIGNED: *McCall* 2/27/90
LEVEL III NDT EXAMINER DATE
 SIGNED: *J.C. Wilson* 2/23/90
CERTIFYING QDM DATE

DISCIPLINE	LEVEL	REFERENCE STANDARD	DATE CERTIFIED	CERTIFIED BY (METHOD)	PERIODIC EVALUATION		
					FIRST SIGN/DATE	SECOND SIGN/DATE	THIRD SIGN/DATE
LIQUID PENETRANT TESTING	II	QAD-2.5	2/23/90	Exam			

REMARKS: The above individual has satisfactorily completed the training and certification requirements of QAD 2.5.
 Effective period of certification: from 2/23/90 to 2/21/93.

STONE & WEBSTER ENGINEERING CORPORATION
QUALITY ASSURANCE DEPARTMENT
EYE TEST CERTIFICATION

TEST WITHOUT GLASSES

		NEAR DISTANCE	FAR DISTANCE
1.	(COVER LEFT EYE) RIGHT EYE O.D.	J-1 = <u>20/20</u>	<u>20/20</u>
2.	(COVER RIGHT EYE) LEFT EYE O.S.	J-1 = <u>20/20</u>	<u>20/20</u>
3.	BOTH EYES O.U.	J-1 = <u>20/20</u>	<u>20/20</u>

TEST WITH GLASSES

TYPE OF GLASSES USED _____ (EXAMPLE, READING, BIFOCAL)

		NEAR DISTANCE	FAR DISTANCE
1.	(COVER LEFT EYE) RIGHT EYE O.D.	_____	_____
2.	(COVER RIGHT EYE) LEFT EYE O.S.	_____	_____
3.	BOTH EYES O.U.	_____	_____

TYPE OF TEST (NEAR DISTANCE) JAEGER

TYPE OF TEST (FAR DISTANCE) SNELLEN

TYPE OF TEST (COLOR) ISHHARA PLATES

HAS THE APPLICANT DISTINGUISHED THE APPROPRIATE RANGE AND NUMBER OF COLOR PLATES TO VERIFY NORMAL COLOR VISION? YES

WHAT COLOR(S) IS THE APPLICANT DEFICIENT IN SEEING? NONE

REMARKS: _____

I CERTIFY THAT THE RESULTS RECORDED ABOVE ARE THOSE FROM THE VISION EXAMINATION GIVEN TO (NAME) EDDIE BRATTON ON (DATE) 2/22/90

SIGNED Kathleen M. Swanson, RN TITLE OCCUPATIONAL HEALTH
DOCTOR OR RN

WITH THE TEST RESULTS RECORDED ABOVE, THE AFOREMENTIONED PERSONNEL HAS PASSED THE EXAMINATION FOR VISION CERTIFICATION.

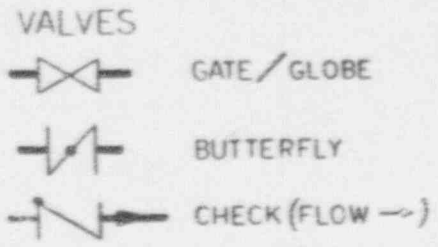
SIGNED [Signature] TITLE AST. MGR. FSC DIV.
QDM

SECTION 6.0

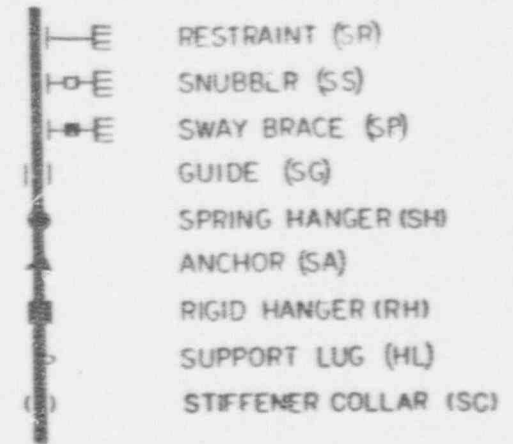
ISI ISOMETRIC DRAWINGS

ONLY
Use restricted to reference

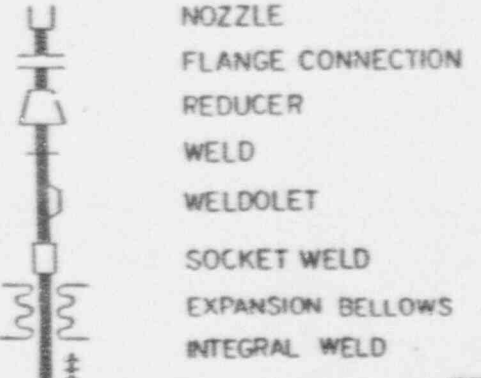
SYMBOLS



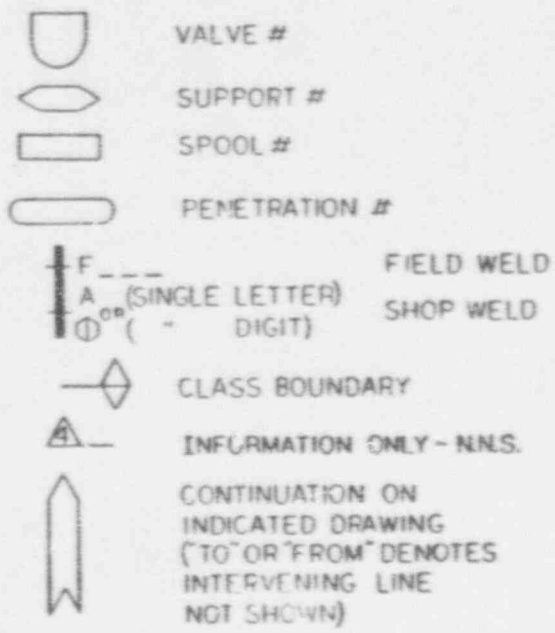
SUPPORTS



OTHER



NOTATION



IDENTIFICATION

ID #s CONSIST OF:
VALVES
G.E. SUPPLIED (G.E. SUPPLIED) (VLV #)
HAND OPERATED (SYS #) (VLV #)
CHECK VALVE (SYS #) (VLV #)

SUPPORTS

H - I -
(SYSTEM #) (SUPPORT #)

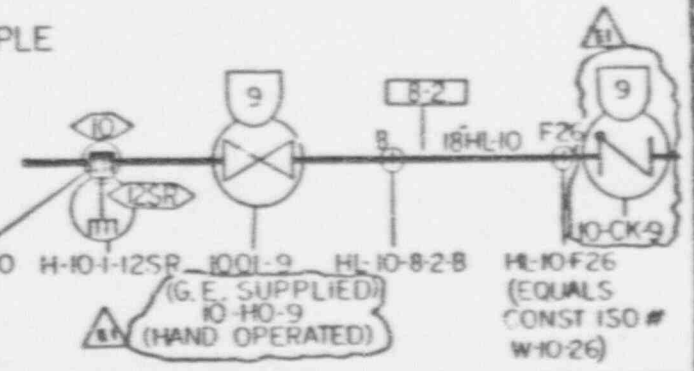
WELDS (CLASS 2)

SHOP
--- (LINE #) (SPOOL #) (WELD #)
FIELD
--- F ---
(LINE #) (WELD #)

EXAMPLE

PIPE DATA

ID	PIPE IDENTIFICATION
MATL	MATERIAL CS-CARBON STEEL SS-STAINLESS
NPS	NOMINAL PIPE SIZE
NWT	WALL THICKNESS
MWT	MINIMUM
NC	NOMINAL CIRCUMFERENCE



APPROVED
REVIEWED
CHECKED

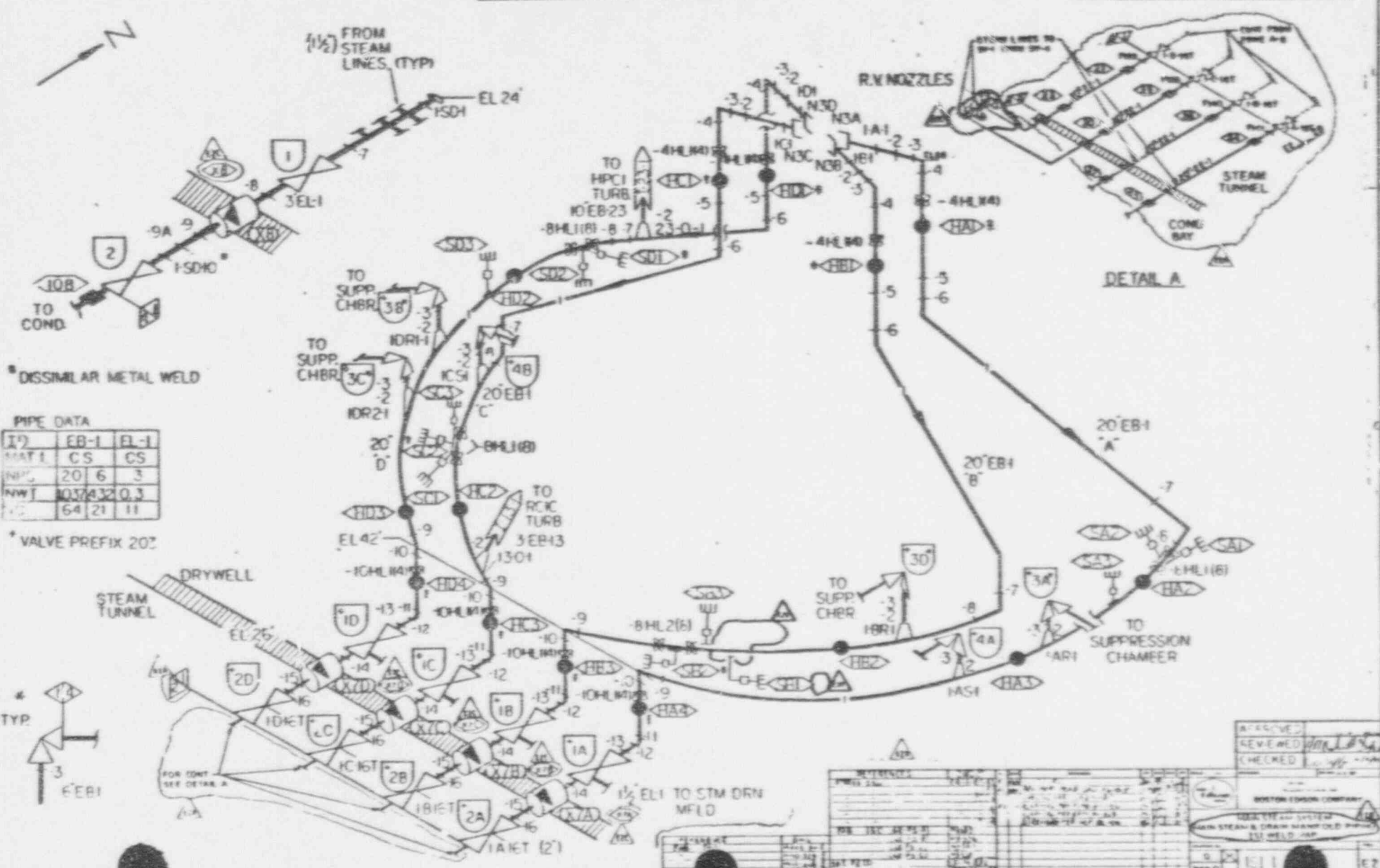
BOSTON EDISON COMPANY

ISOMETRIC LEGEND
ISI WELD MAP

ISI I O EI

INFORMATION ONLY

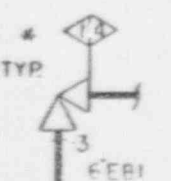
Use restricted to reference



PIPE DATA

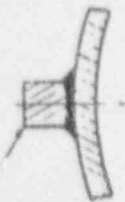
ID	EB-1	EL-1
MAT	CS	CS
NPS	20	6
NWT	0.375	0.3
WT	64	21

VALVE PREFIX 20Z

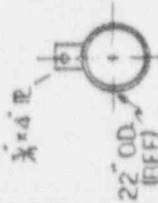


APPROVED	REVIEWED	CHECKED
BOSTON Edison COMPANY		
STEAM SYSTEM		
FOR STEAM & DRAIN MANIPULATION		
BY WELDING		
DATE	BY	NO.
RECEIVED	THIS DATE	

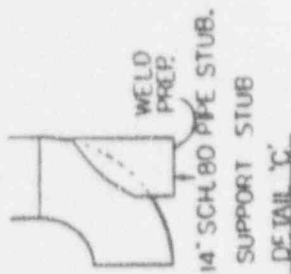
LUG $1\frac{1}{2} \times 1\frac{1}{2} \times 2$



HANGER LUG
DETAIL 'A'



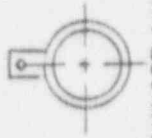
HANGER LUGS
DETAIL 'E'



14" SCH 80 PIPE STUB,
SUPPORT STUB
DETAIL 'C'



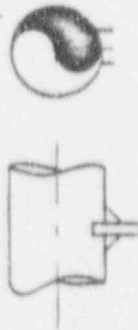
SHOCK SUPPRESSOR LUG
DETAIL 'D'



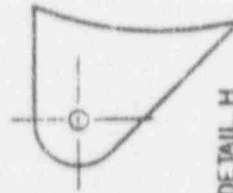
HANGER LUG, 1" x 5" R
DETAIL 'E'



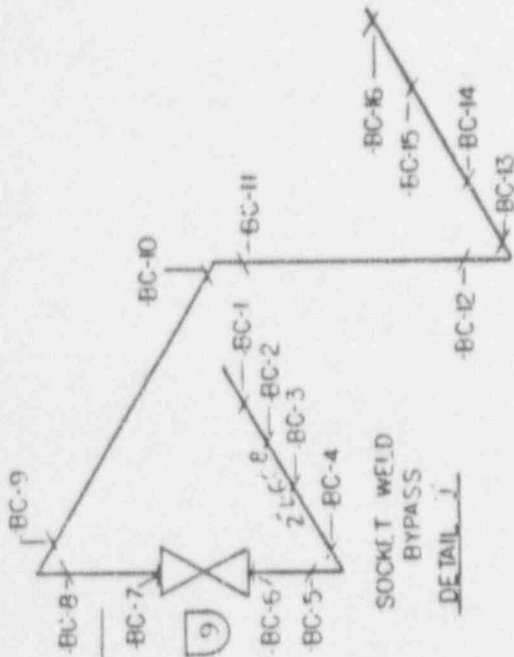
HANGER LUG 1" R
DETAIL 'F'



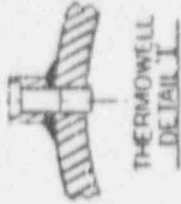
GUIDE LUG
DETAIL 'G'



DETAIL 'H'



SOCKET WELD
BYPASS
DETAIL 'J'



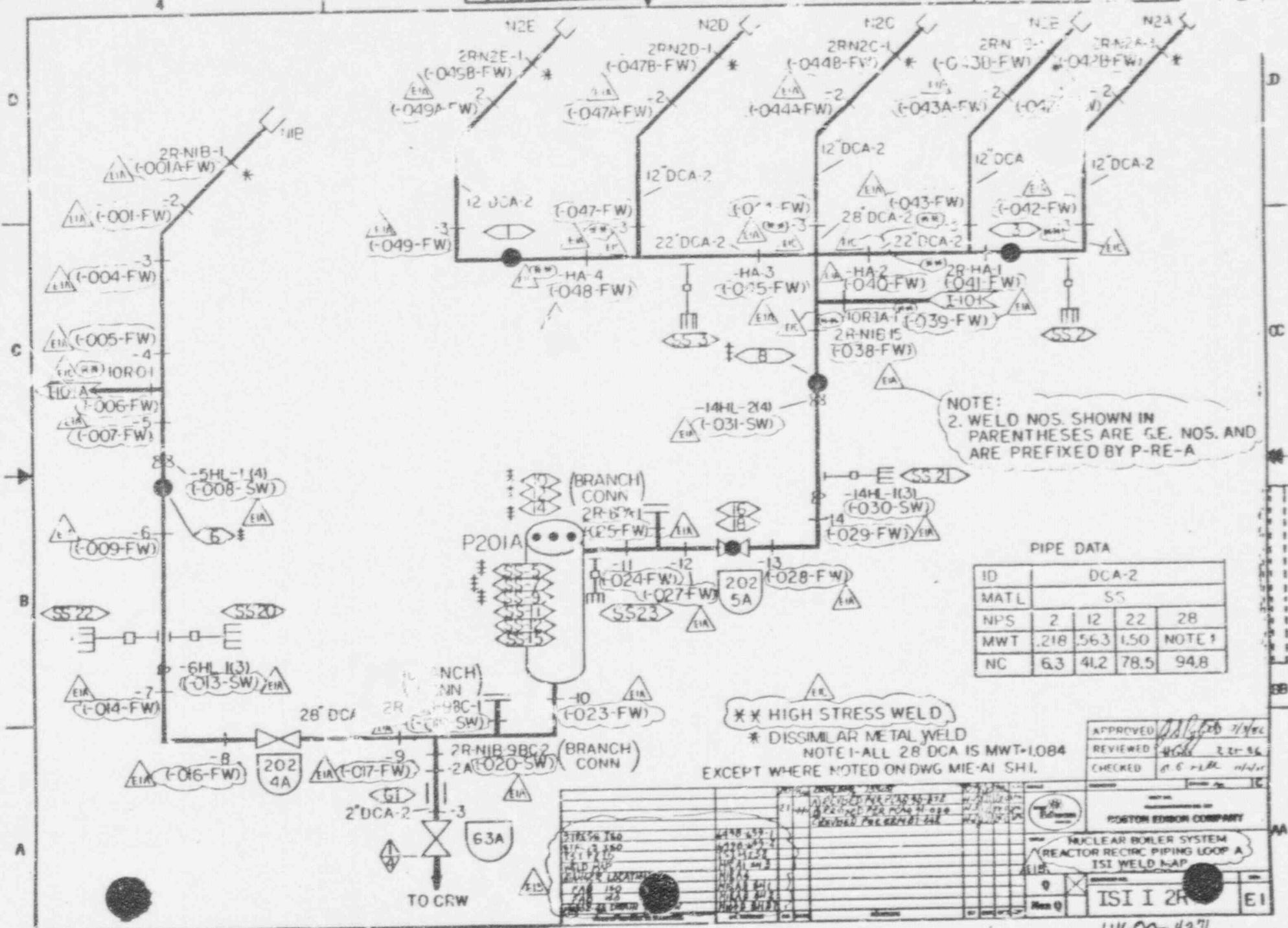
THERMOWELL
DETAIL 'I'

NOTE:
L WELD I.D. PREFIXED
W/ VALVE I.D.

APPROVED	<i>[Signature]</i>	DATE	11/14/12
REVIEWED	<i>[Signature]</i>	DATE	11/14/12
CHECKED	<i>[Signature]</i>	DATE	11/14/12
DESIGN ENGINE COMPANY			
RECIRCULATION LOOP DETAILS			
ISH-20			10

INFORMATION

UNLT
Use restrict to refer



NOTE:
2. WELD NOS. SHOWN IN PARENTHESES ARE G.E. NOS. AND ARE PREFIXED BY P-RE-A

PIPE DATA

ID	DCA-2			
MATL	SS			
NPS	2	12	22	28
MWT	.218	.563	1.50	NOTE 1
NC	6.3	41.2	78.5	94.8

XX HIGH STRESS WELD
* DISSIMILAR METAL WELD
NOTE 1-ALL 28 DCA IS MWT=1.084
EXCEPT WHERE NOTED ON DWG MIE-AI SHI.

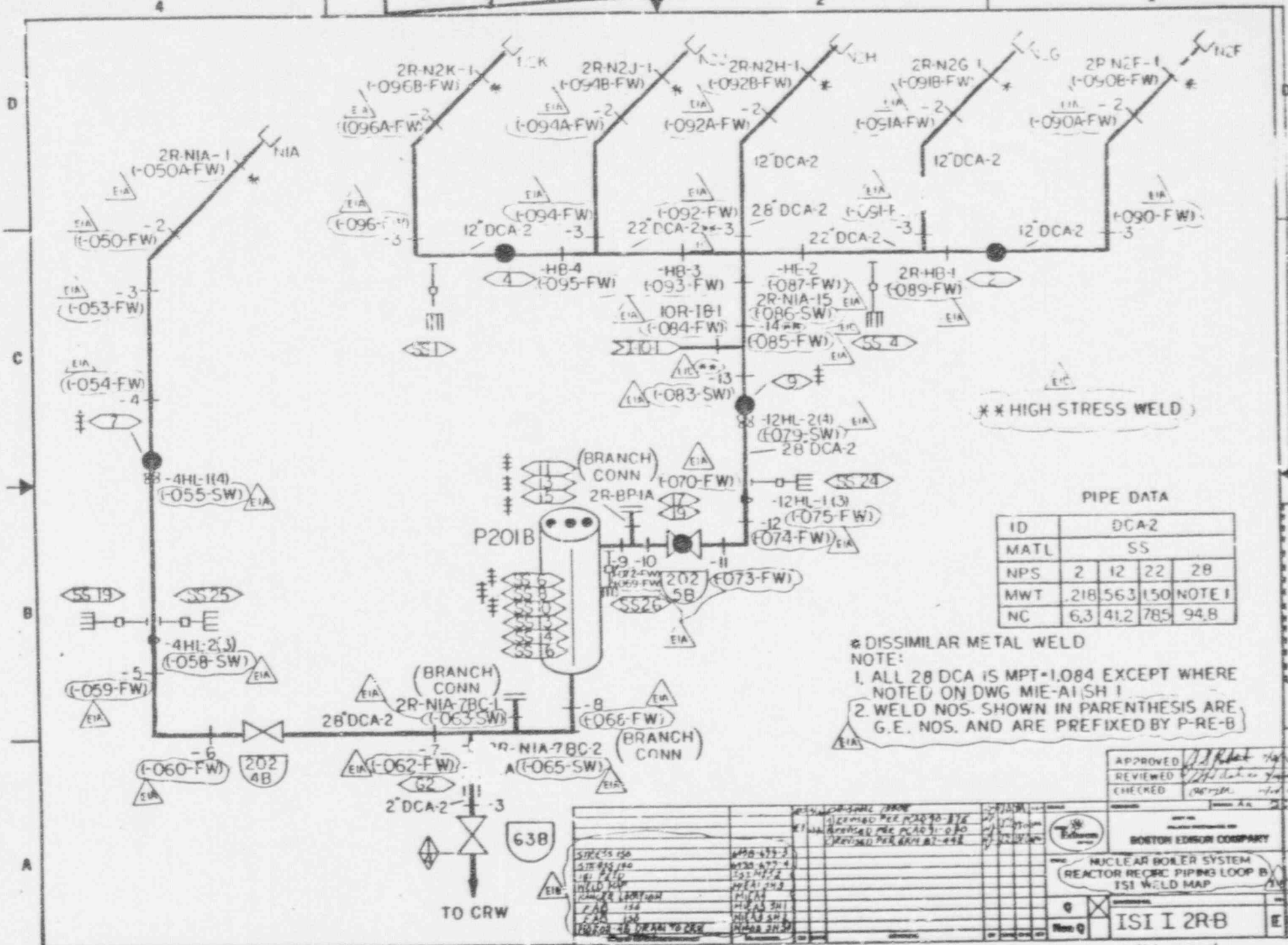
APPROVED: [Signature]
REVIEWED: [Signature]
CHECKED: [Signature]

NO.	DATE	DESCRIPTION	BY	CHKD
1	10/15/54	ISSUED FOR CONSTRUCTION	...	...
2	11/15/54	REVISED PER MIE-AI SHI	...	...
3	12/15/54	REVISED PER MIE-AI SHI	...	...

PORTON EDISON COMPANY
NUCLEAR BOILER SYSTEM
REACTOR RECIRC PIPING LOOP A
ISI WELD MAP

ISI I 2R E1
LHM-4271

UNCL
Use restricted to reference



XX HIGH STRESS WELD

PIPE DATA

ID	DCA2			
MATL	SS			
NPS	2	12	22	28
MWT	.218	.563	1.50	NOTE 1
NC	6.3	41.2	78.5	94.8

DISSIMILAR METAL WELD NOTE:
 1. ALL 28 DCA IS MPT-1.084 EXCEPT WHERE NOTED ON DWG MIE-A1 SH 1
 2. WELD NOS. SHOWN IN PARENTHESIS ARE G.E. NOS. AND ARE PREFIXED BY P-RE-B

APPROVED: [Signature]
 REVIEWED: [Signature]
 CHECKED: [Signature]

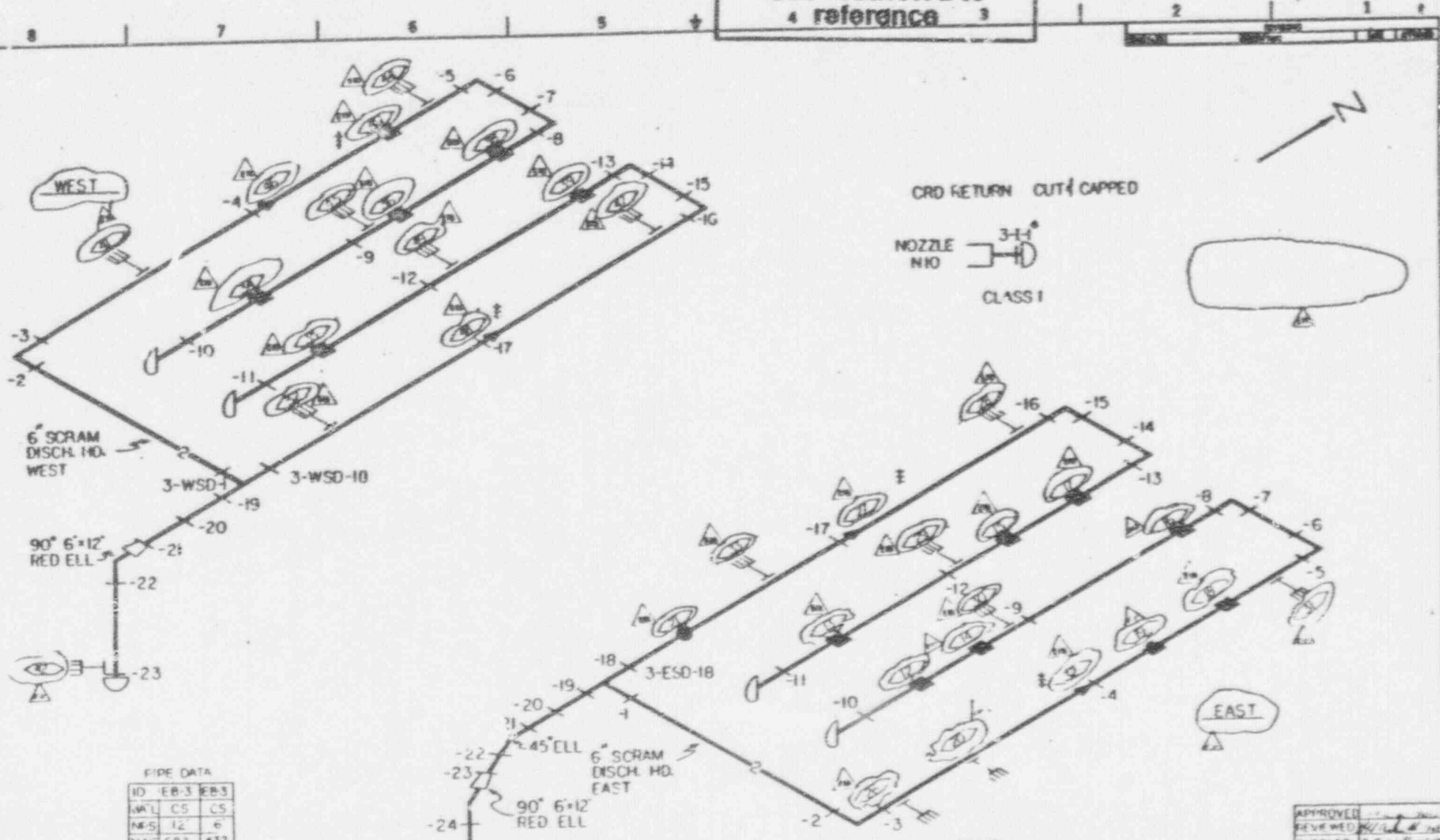
NO.	DESCRIPTION	DATE	BY	CHECKED
1	ISSUED FOR CONSTRUCTION	11/15/58	W. J. [Signature]	[Signature]
2	REVISION PER [Reference]	11/15/58	[Signature]	[Signature]
3	REVISION PER [Reference]	11/15/58	[Signature]	[Signature]
4	REVISION PER [Reference]	11/15/58	[Signature]	[Signature]
5	REVISION PER [Reference]	11/15/58	[Signature]	[Signature]
6	REVISION PER [Reference]	11/15/58	[Signature]	[Signature]
7	REVISION PER [Reference]	11/15/58	[Signature]	[Signature]
8	REVISION PER [Reference]	11/15/58	[Signature]	[Signature]
9	REVISION PER [Reference]	11/15/58	[Signature]	[Signature]
10	REVISION PER [Reference]	11/15/58	[Signature]	[Signature]

BOSTON EDISON COMPANY
 NUCLEAR BOILER SYSTEM
 REACTOR REGRIP PIPING LOOP B
 ISI WELD MAP
 ISI I 2RB

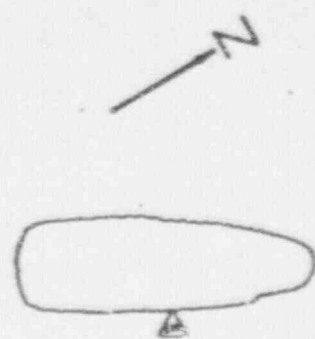
ACCEPTED RING

46.07.54

INFORMATION ONLY
Info
 Use restricted to reference



CRD RETURN CUT/CAPPED
 NOZZLE N10 $\frac{3}{4}$ "
 CLASS I



PIPE DATA

ID	EB-3	EB-3
WAL	CS	CS
NPS	12	6
NAV	FRA	432
IC	52	9

NO. ENGINE DRAWING	DATE	BY	CHKD
100-100-100	10/10/10	J. J. J.	J. J. J.
REV	DATE	BY	CHKD
1			
2			
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9			
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11			
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99			
100			

APPROVED: _____
 REVIEWED: _____
 CHECKED: _____

BOSTON ENGINE COMPANY
 CONTROL ROOMS HYDRAULIC SYSTEMS
 REACTOR CONTROL ROOMS HYDRAULIC SYSTEMS
 IS1

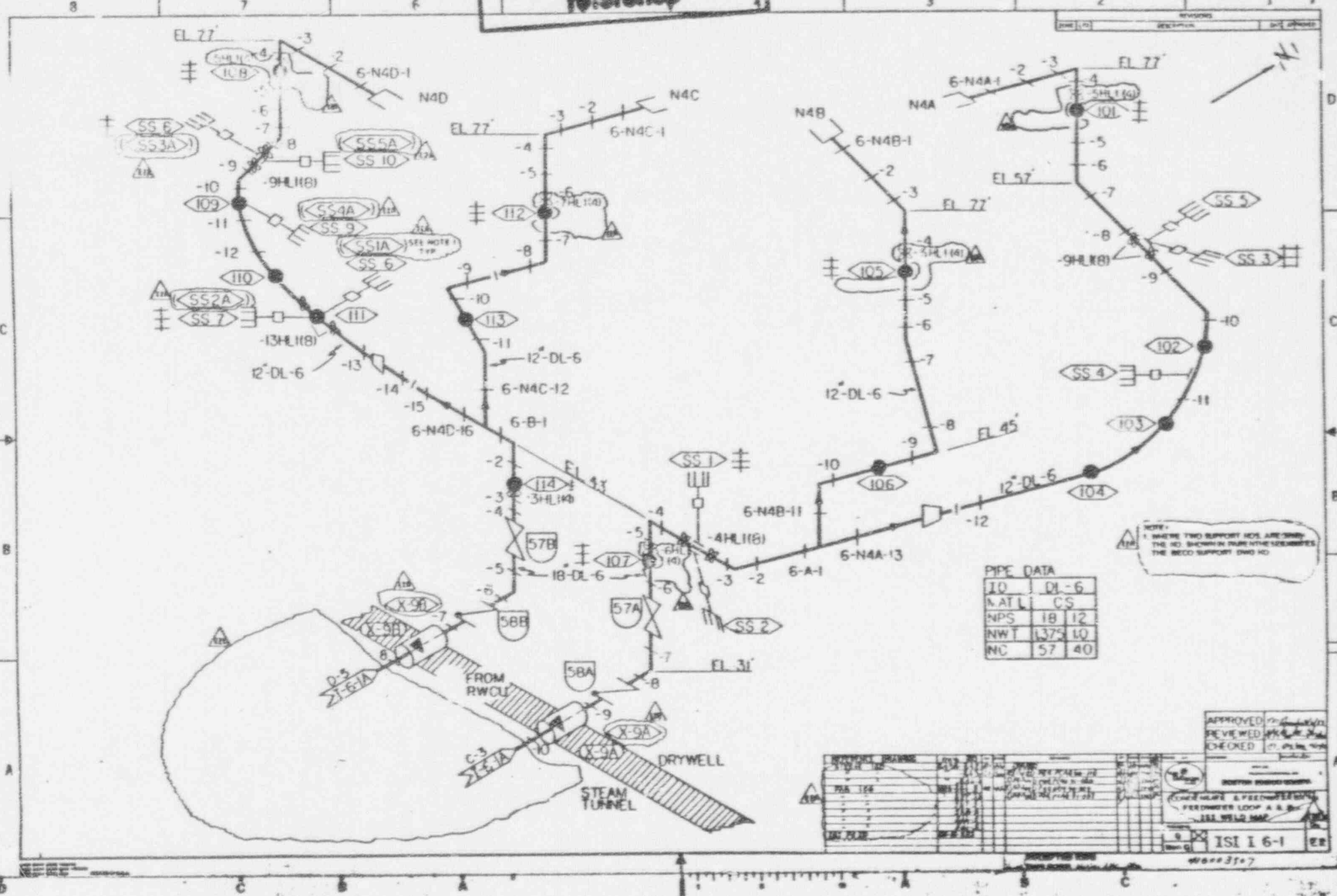
ACCEPTED AND DATE

8 7 6 5 4 3 2 1

C B A

A B C

INFORMATION ONLY
 Use restricted to reference



NO.	DESCRIPTION	DATE

NOTE: 1. WHERE TWO SUPPORT IDS ARE SHOWN, THE NO. SHOWN IN PARENTHESES IS THE BECO SUPPORT ID NO.


PIPE DATA

ID	DL-6
MAT'L	CS
NPS	18 12
NWT	1375 10
INC	57 40

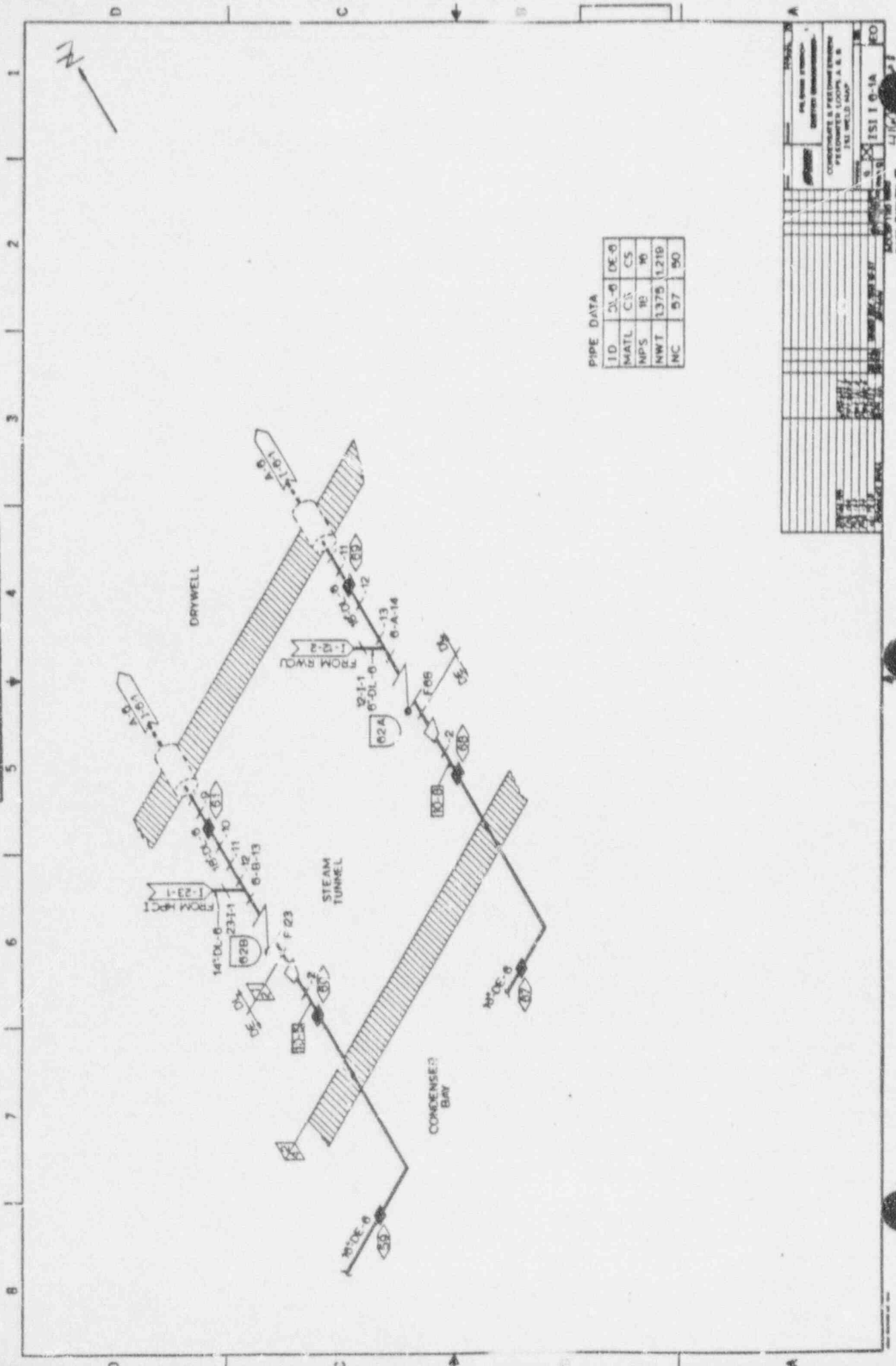
NO.	DATE	DESCRIPTION	BY	CHKD

APPROVED	<i>[Signature]</i>
REVIEWED	<i>[Signature]</i>
CHECKED	<i>[Signature]</i>

ISI I 6-1



Use restricted to reference



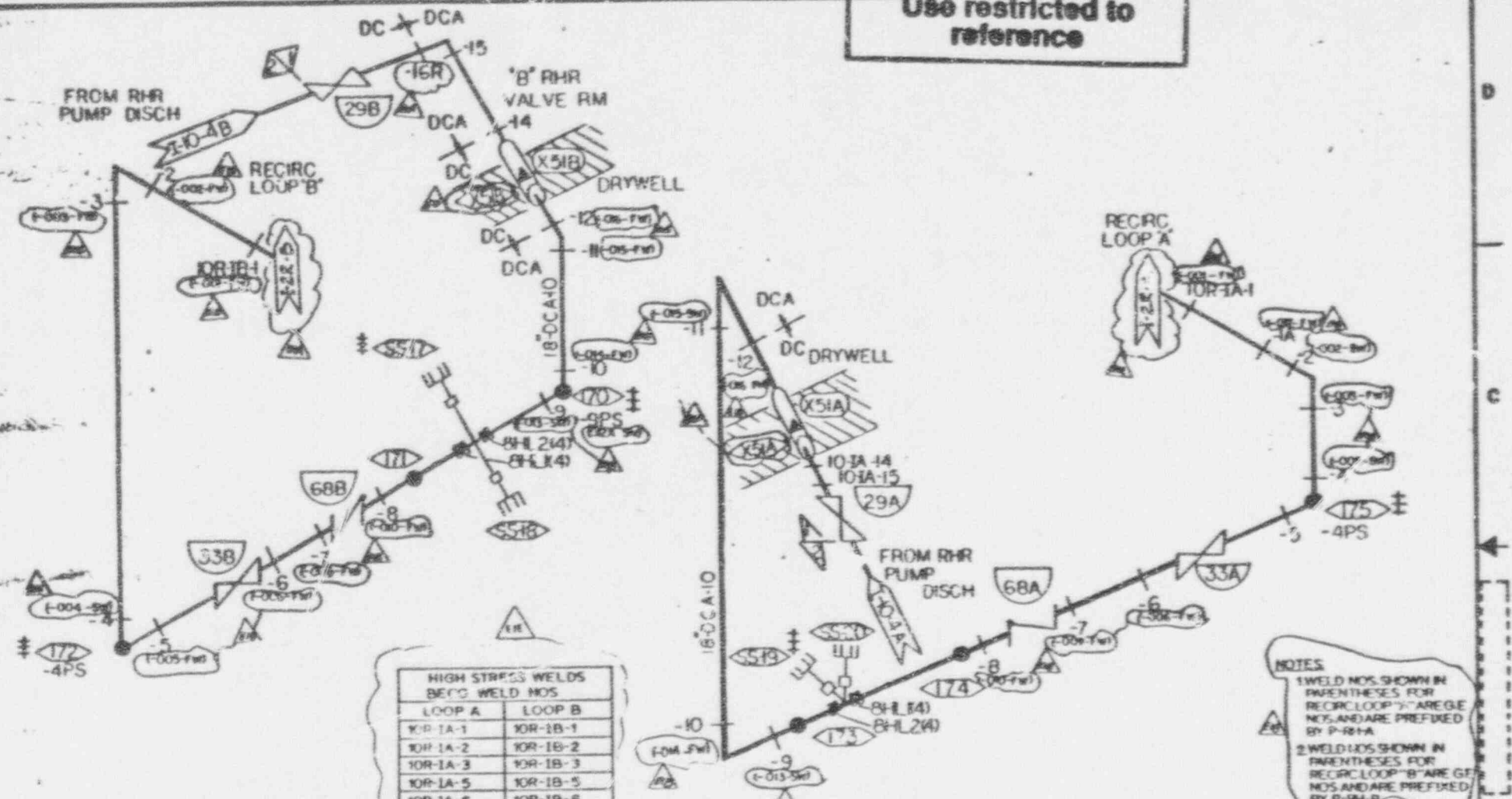
PIPE DATA

ID	DI-6	DE-6
MATL	C/N	CS
NPS	10	10
NWT	1375	1219
NC	57	50

PROJECT NO.	1010-101
CONTRACTOR'S & PROJECT ENGINEER	ISI 10-1A
PERFORMER LOOP A & B	ISI 10-1A
ISI WELD SHOP	ISI 10-1A
DATE	10/10/10
SCALE	1/4" = 1'-0"
REVISION	
NO.	
DATE	
BY	
CHECKED	
APPROVED	

INFORMATION ONLY *apms*

Use restricted to reference



HIGH STRESS WELDS BECCS WELD NOS

LOOP A	LOOP B
TOR-1A-1	TOR-1B-1
TOR-1A-2	TOR-1B-2
TOR-1A-3	TOR-1B-3
TOR-1A-5	TOR-1B-5
TOR-1A-6	TOR-1B-6
TOR-1A-7	TOR-1B-7
TOR-1A-8	TOR-1B-8
TOR-1A-14	TOR-1B-9
	TOR-1B-14

PIPE DATA

ID	DCA10	DC10
MATL	SS	
NPS	18	
NWT	MIN 755	755
NC	57	

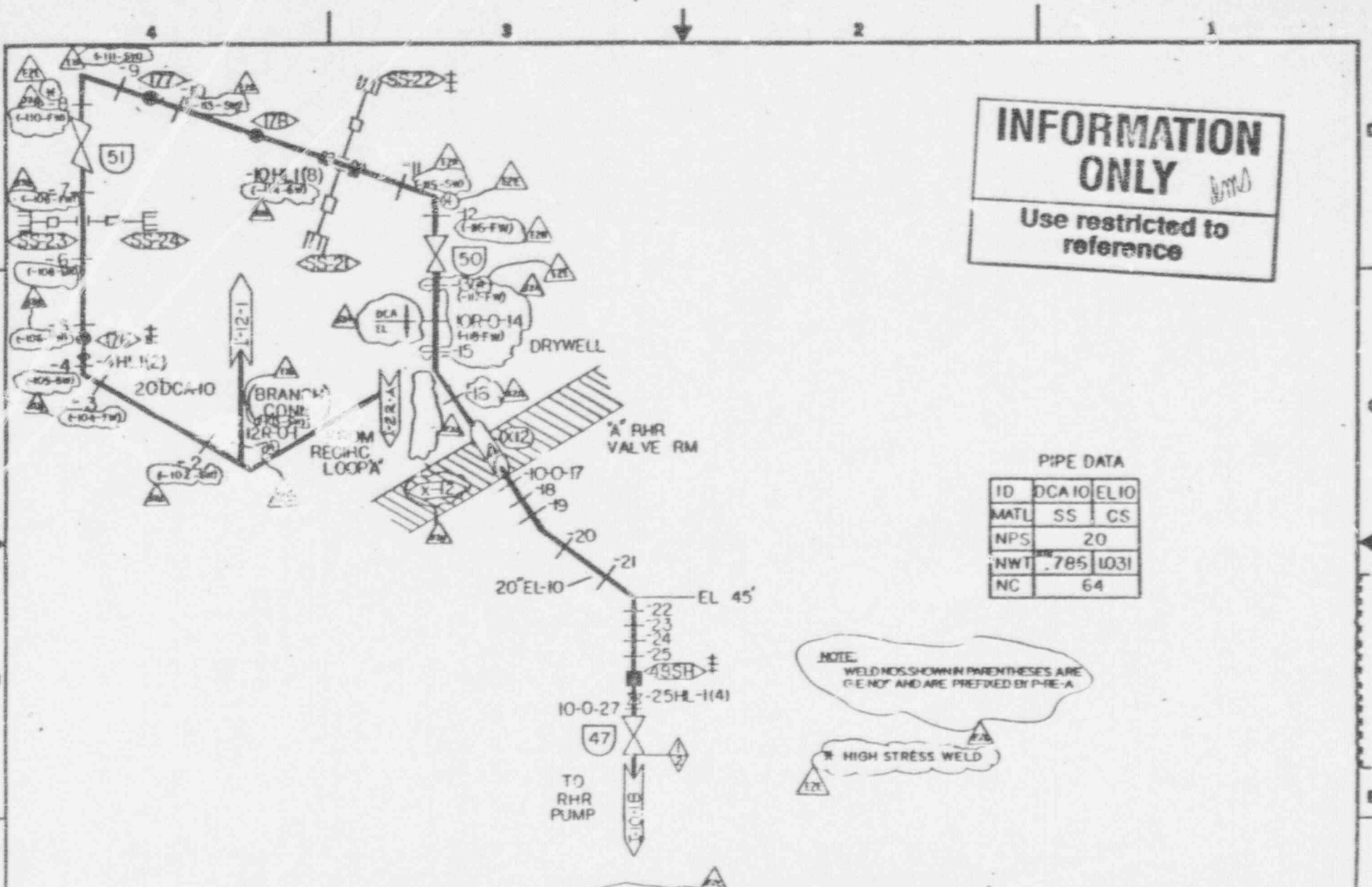
NOTES

- 1 WELD NOS SHOWN IN PARENTHESES FOR RECIRC LOOP "A" ARE GE NOS AND ARE PREFIXED BY P-184-B
- 2 WELD NOS SHOWN IN PARENTHESES FOR RECIRC LOOP "B" ARE GE NOS AND ARE PREFIXED BY P-184-B

STRESS TAG (LOOP A)	DATE	BY	REV	DESCRIPTION
STRESS TAG (LOOP B)	04/15/80	WJG	1	ISSUED
STRESS TAG (LOOP C)	04/15/80	WJG	1	ISSUED
STRESS TAG (LOOP D)	04/15/80	WJG	1	ISSUED
STRESS TAG (LOOP E)	04/15/80	WJG	1	ISSUED
STRESS TAG (LOOP F)	04/15/80	WJG	1	ISSUED
STRESS TAG (LOOP G)	04/15/80	WJG	1	ISSUED
STRESS TAG (LOOP H)	04/15/80	WJG	1	ISSUED
STRESS TAG (LOOP I)	04/15/80	WJG	1	ISSUED
STRESS TAG (LOOP J)	04/15/80	WJG	1	ISSUED
STRESS TAG (LOOP K)	04/15/80	WJG	1	ISSUED
STRESS TAG (LOOP L)	04/15/80	WJG	1	ISSUED
STRESS TAG (LOOP M)	04/15/80	WJG	1	ISSUED
STRESS TAG (LOOP N)	04/15/80	WJG	1	ISSUED
STRESS TAG (LOOP O)	04/15/80	WJG	1	ISSUED
STRESS TAG (LOOP P)	04/15/80	WJG	1	ISSUED
STRESS TAG (LOOP Q)	04/15/80	WJG	1	ISSUED
STRESS TAG (LOOP R)	04/15/80	WJG	1	ISSUED
STRESS TAG (LOOP S)	04/15/80	WJG	1	ISSUED
STRESS TAG (LOOP T)	04/15/80	WJG	1	ISSUED
STRESS TAG (LOOP U)	04/15/80	WJG	1	ISSUED
STRESS TAG (LOOP V)	04/15/80	WJG	1	ISSUED
STRESS TAG (LOOP W)	04/15/80	WJG	1	ISSUED
STRESS TAG (LOOP X)	04/15/80	WJG	1	ISSUED
STRESS TAG (LOOP Y)	04/15/80	WJG	1	ISSUED
STRESS TAG (LOOP Z)	04/15/80	WJG	1	ISSUED

BOSTON EDISON COMPANY
RESIDUAL HEAT REMOVAL SYSTEM
RHR PIPING LOOPS A & B
WELD MAP

ISI 101 E1



INFORMATION ONLY
 Use restricted to reference

PIPE DATA

ID	DCA10	EL10
MATL	SS	CS
NPS	20	
NWT	.785	1031
NC	64	

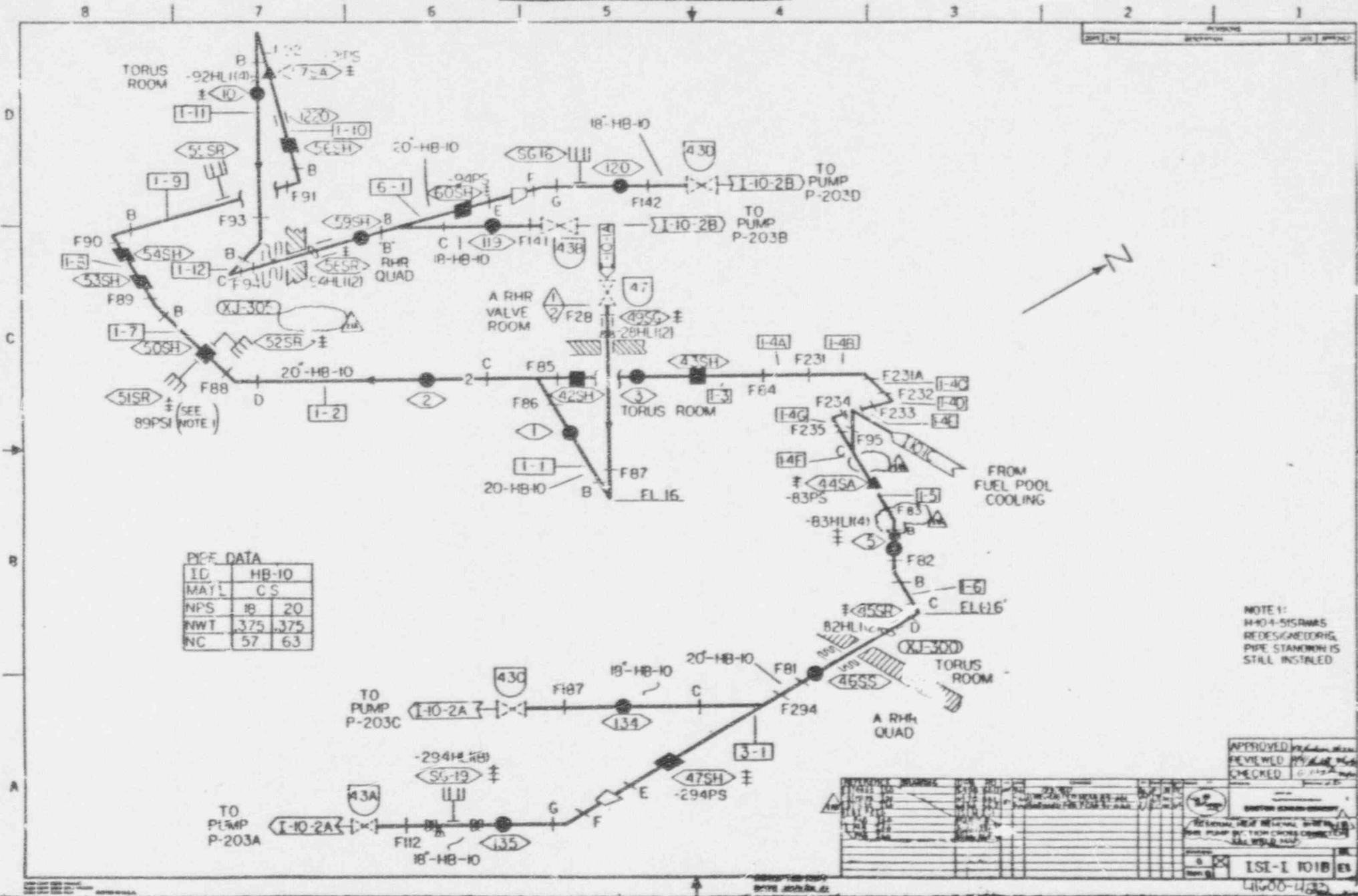
NOTE:
 WELD NOS SHOWN IN PARENTHESES ARE
 G.E. NO. AND ARE PREFIXED BY P-RE-A

* HIGH STRESS WELD

STRESS TAG	DATE	BY	REVISION	NO.	DESCRIPTION
WELD MAP	10/10/41	W. N. SHY. 2			REV PER DRAWING 90-322
WELD LOCATION					REV PER DRAWING 90-323
TAB 150					REV PER DRAWING 90-325
TAB 151					REV PER DRAWING 90-442

Non Q
 BOSTON EDISON COMPANY
 RESIDUAL HEAT REMOVAL SYSTEM
 RHR SUPPLY
 ISI WELD MAP
 ISI I 10-1A EL

000000000000
**Use restricted to
 reference**



PIPE DATA

ID	HB-10
MAT'L	CS
NPS	18 20
NWT	.375 .375
NC	57 63

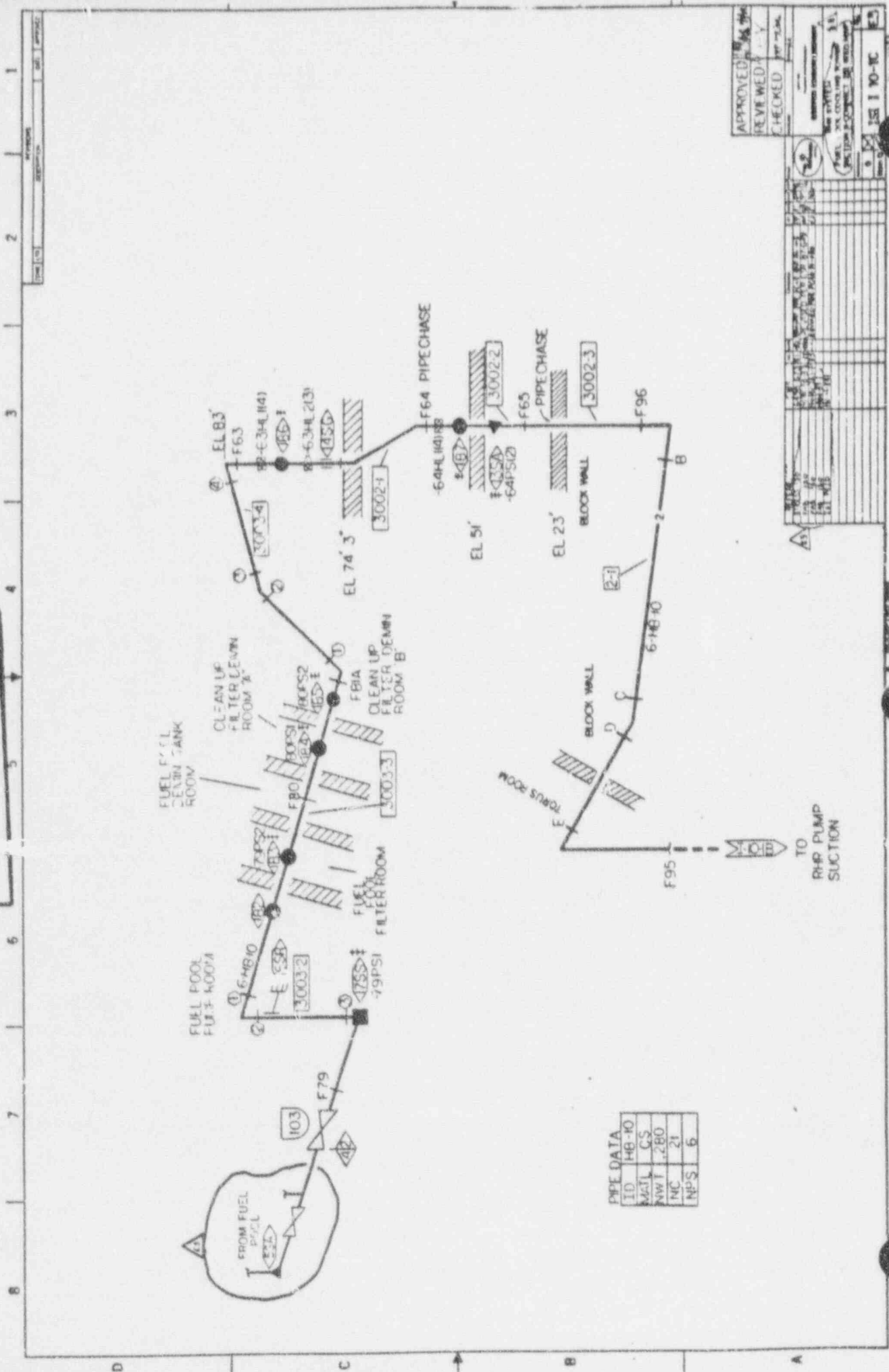
NOTE 1:
 H-10-4-SYSTEMS
 REDESIGNED/RE-
 PIPE STANDBY IS
 STILL INSTALLED

NO.	DATE	BY	CHKD	REVISION

APPROVED: [Signature]
 REVIEWED: [Signature]
 CHECKED: [Signature]

SECTION: [Blank]
 PROJECT: [Blank]
 DRAWING NO: **ISI-1 1018 EB**
 41600-432

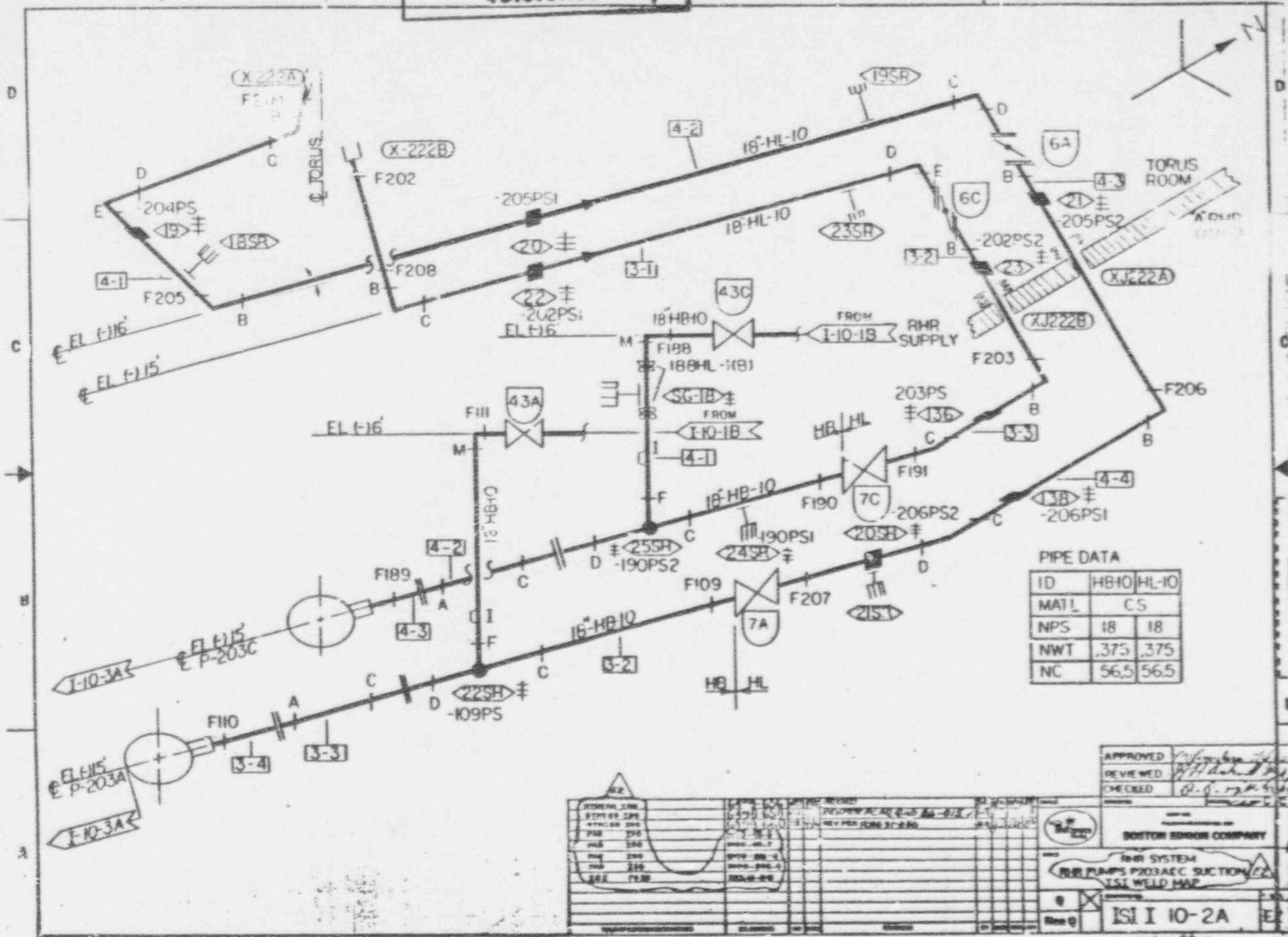
CONFIDENTIAL
ONLY
 Use restricted to reference



APPROVED: [Signature]
 REVIEWED: [Signature]
 CHECKED: [Signature]

DATE: 10-10-10
 SHEET NO: 10-10-10

ONLY
Use restricted
reference



PIPE DATA

ID	HB-10	HL-10
MATL	CS	
NPS	18	18
NWT	.375	.375
NC	56.5	56.5

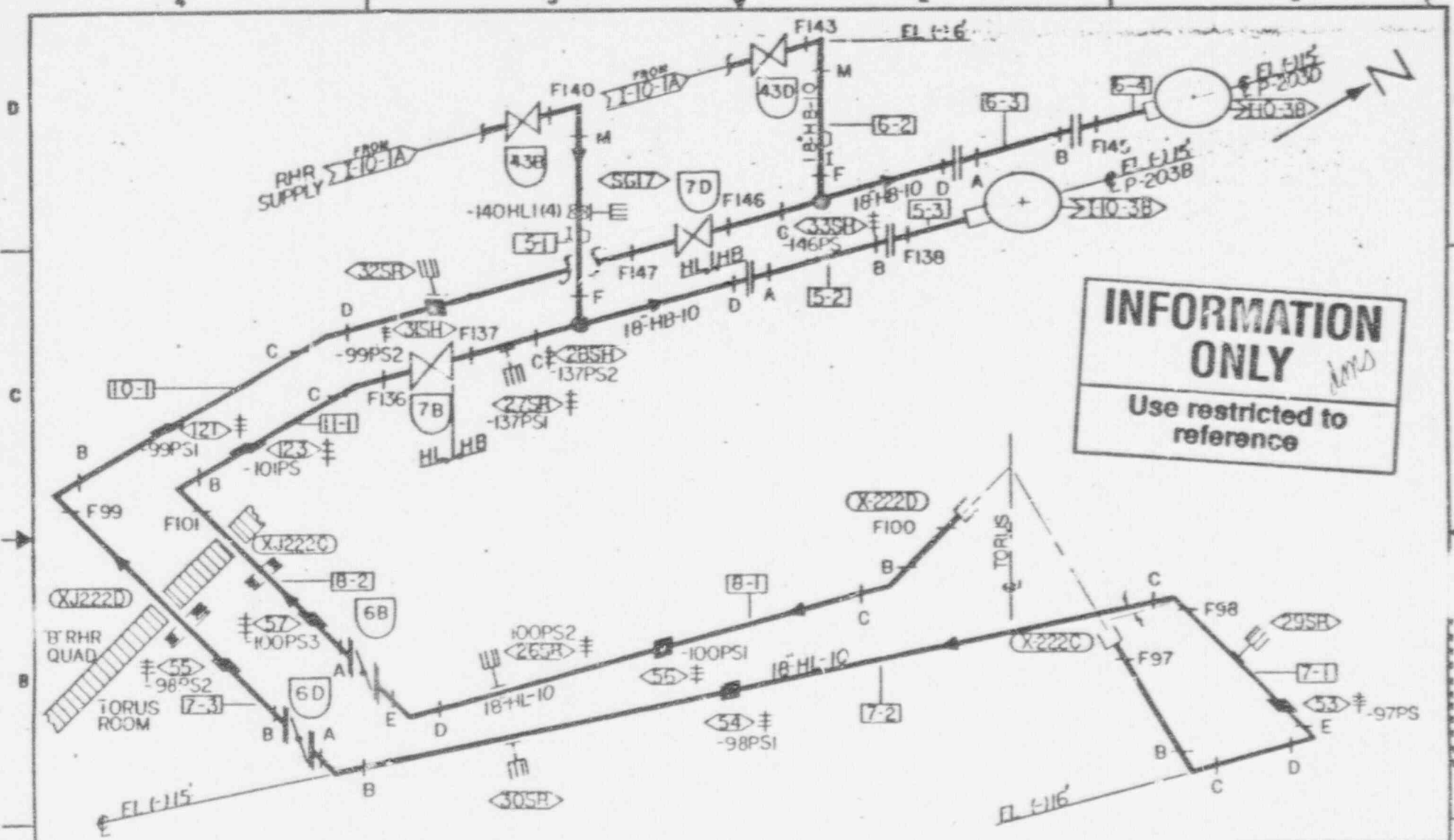
APPROVED: [Signature]
REVIEWED: [Signature]
CHECKED: [Signature]

BOSTON EDGECOR COMPANY

RHR SYSTEM
RHR PUMPS P203A/C SUCTION
ISI WELD MAP

ISI I 10-2A

ITEM NO.	DESCRIPTION	QUANTITY	UNIT	REMARKS
1	18\"/>			



INFORMATION ONLY

Use restricted to reference

PIPE DATA

ID	HB10	HL10
MATL	CS	
NPS	18	18
NWT	.375	.375
NC	56.5	56.5

ITEM NO	DESCRIPTION	QTY	UNIT	REVISION
1	18" HB-10	1	FT	
2	18" HL-10	1	FT	
3	18" HL-10	1	FT	
4	18" HL-10	1	FT	
5	18" HL-10	1	FT	
6	18" HL-10	1	FT	
7	18" HL-10	1	FT	
8	18" HL-10	1	FT	
9	18" HL-10	1	FT	
10	18" HL-10	1	FT	

APPROVED: [Signature]
 REVIEWED: [Signature]
 CHECKED: [Signature]

BOSTON EDISON COMPANY

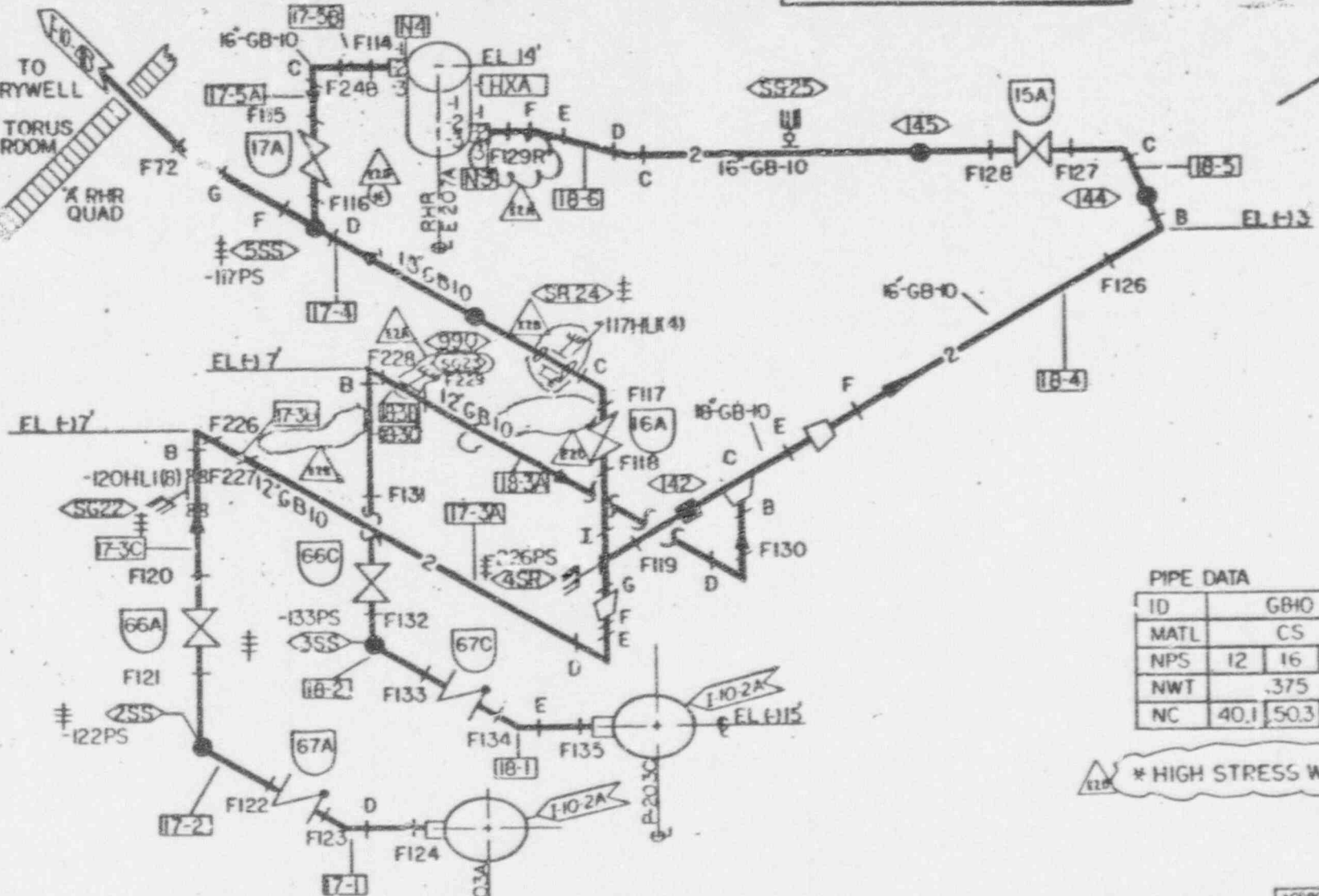
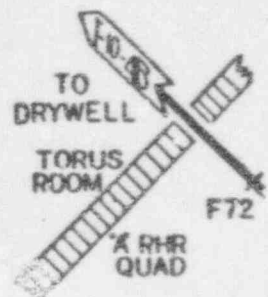
RHR SYSTEM
 RHR PUMP-IPS PROVIDED SUC...
 ISI WELD MAP

Non Q

ISI-I-10-2B

INFORMATION ONLY

Use restricted to reference



PIPE DATA

ID	GB10		
MATL	CS		
NPS	12	16	18
NWT	.375		
NC	40.1	50.3	56.5

* HIGH STRESS WELD

STRESS 150	150	150	150
748 150	150	150	150
748 150	150	150	150
151 150	150	150	150

APPROVED [Signature]

REVIEWED [Signature]

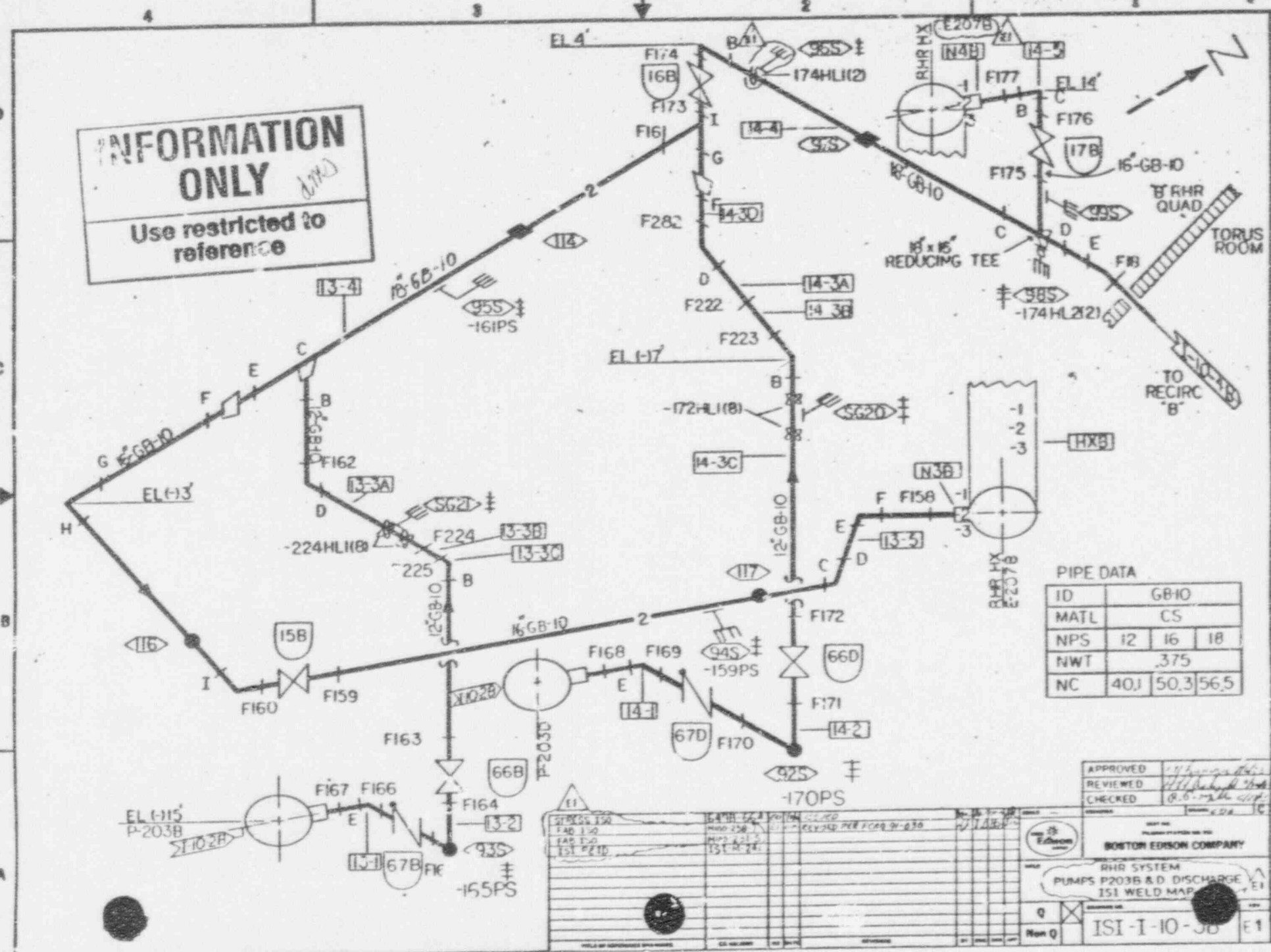
CHECKED [Signature]

BOSTON EDISON COMPANY

RHR SYSTEM
PUMPS P203A & C DISCHARGE
ISI WELD MAP

ISI I 10-3A E2

INFORMATION ONLY
 Use restricted to reference



PIPE DATA

ID	GB10
MATL	CS
NPS	12 16 18
NWT	.375
NC	40.1 50.3 56.5

APPROVED
 REVIEWED
 CHECKED

DATE	BY	REVISION
10/28/78	ISI	1
11/15/78	ISI	2
12/15/78	ISI	3
1/15/79	ISI	4
2/15/79	ISI	5
3/15/79	ISI	6
4/15/79	ISI	7
5/15/79	ISI	8
6/15/79	ISI	9
7/15/79	ISI	10
8/15/79	ISI	11
9/15/79	ISI	12
10/15/79	ISI	13
11/15/79	ISI	14
12/15/79	ISI	15
1/15/80	ISI	16
2/15/80	ISI	17
3/15/80	ISI	18
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6/15/80	ISI	21
7/15/80	ISI	22
8/15/80	ISI	23
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1/15/81	ISI	28
2/15/81	ISI	29
3/15/81	ISI	30
4/15/81	ISI	31
5/15/81	ISI	32
6/15/81	ISI	33
7/15/81	ISI	34
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11/15/81	ISI	38
12/15/81	ISI	39
1/15/82	ISI	40
2/15/82	ISI	41
3/15/82	ISI	42
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6/15/82	ISI	45
7/15/82	ISI	46
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11/15/86	ISI	98
12/15/86	ISI	99
1/15/87	ISI	100

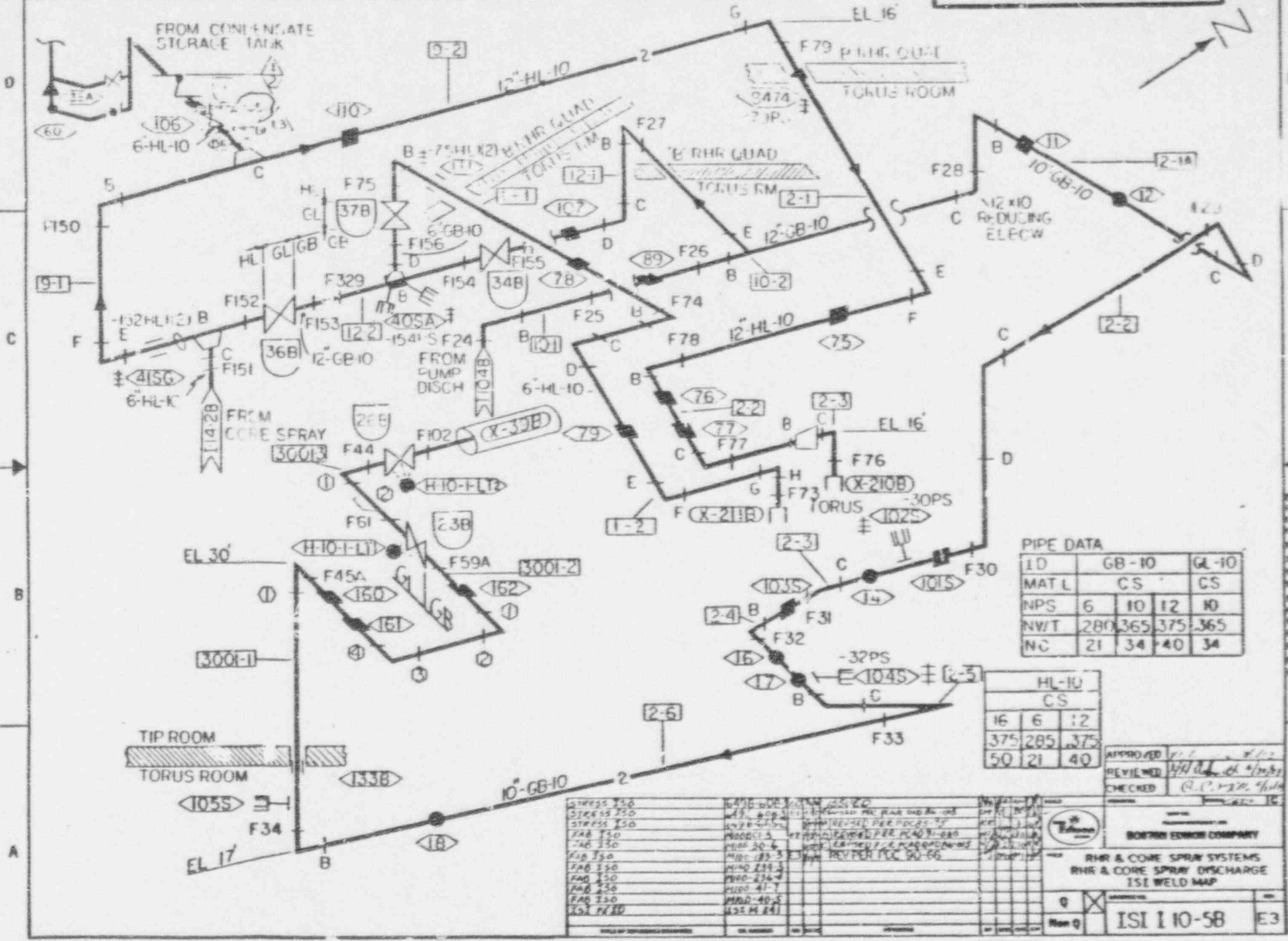
BOSTON EDISON COMPANY

RHR SYSTEM
 PUMPS P203B & D DISCHARGE
 ISI WELD MAP

Q Non Q

ISI-1-10-58 E1

ONLY
Use restricted reference



PIPE DATA

ID	GB-10	GL-10
MAT L	CS	CS
NPS	6 10 12 10	
NWT	280 365 375 365	
NC	21 34 40 34	

HL-10		
CS		
16	6	12
375	285	375
50	21	40

APPROVED: [Signature]
REVIEWED: [Signature]
CHECKED: [Signature]

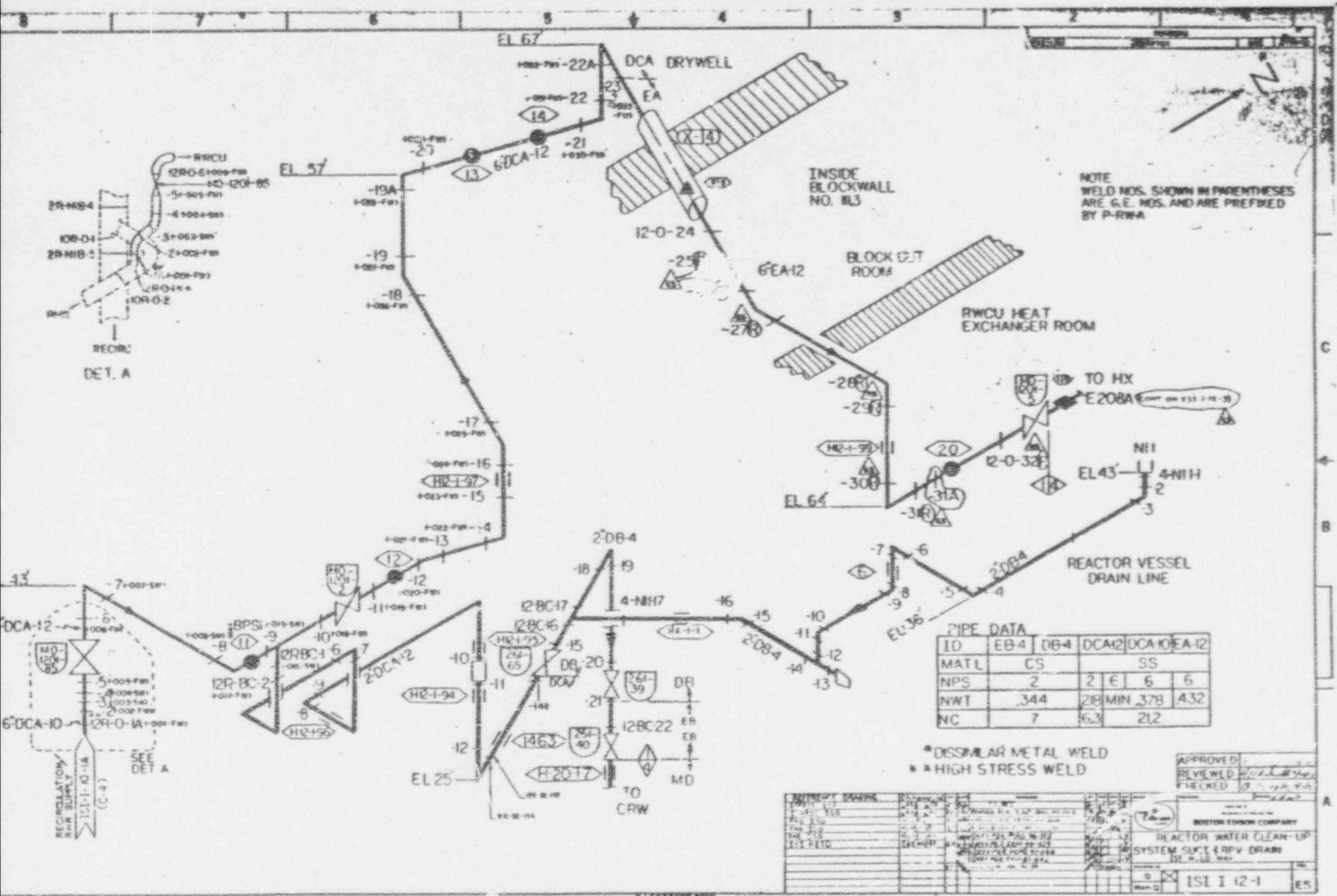
BOYDTON ENGINE COMPANY

RHR & CORE SPRAY SYSTEMS
RHR & CORE SPRAY DISCHARGE
ISE WELD MAP

Q [X] [] [] []
Run Q ISI 110-58 E3

ITEM NO.	DESCRIPTION	DATE	BY	CHKD.
1	ISSUED FOR CONSTRUCTION	11/10/58	[Signature]	[Signature]
2	REVISION PER PCC 20-66	11/10/58	[Signature]	[Signature]
3	REVISION PER PCC 20-66	11/10/58	[Signature]	[Signature]
4	REVISION PER PCC 20-66	11/10/58	[Signature]	[Signature]
5	REVISION PER PCC 20-66	11/10/58	[Signature]	[Signature]
6	REVISION PER PCC 20-66	11/10/58	[Signature]	[Signature]
7	REVISION PER PCC 20-66	11/10/58	[Signature]	[Signature]
8	REVISION PER PCC 20-66	11/10/58	[Signature]	[Signature]
9	REVISION PER PCC 20-66	11/10/58	[Signature]	[Signature]
10	REVISION PER PCC 20-66	11/10/58	[Signature]	[Signature]

ONLY
Use restricted to reference



NOTE WELD NOS. SHOWN IN PARENTHESES ARE G.E. NOS. AND ARE PREFIXED BY P-RWA

PIPE DATA				
ID	EB-4	DB-4	DCA12	DCA10/EA-12
MATL	CS		SS	
NPS	2	2	6	6
NWT	.344	2.8	MIN .378	.432
NC	7	6.3	21.2	

* DISSIMILAR METAL WELD
** HIGH STRESS WELD

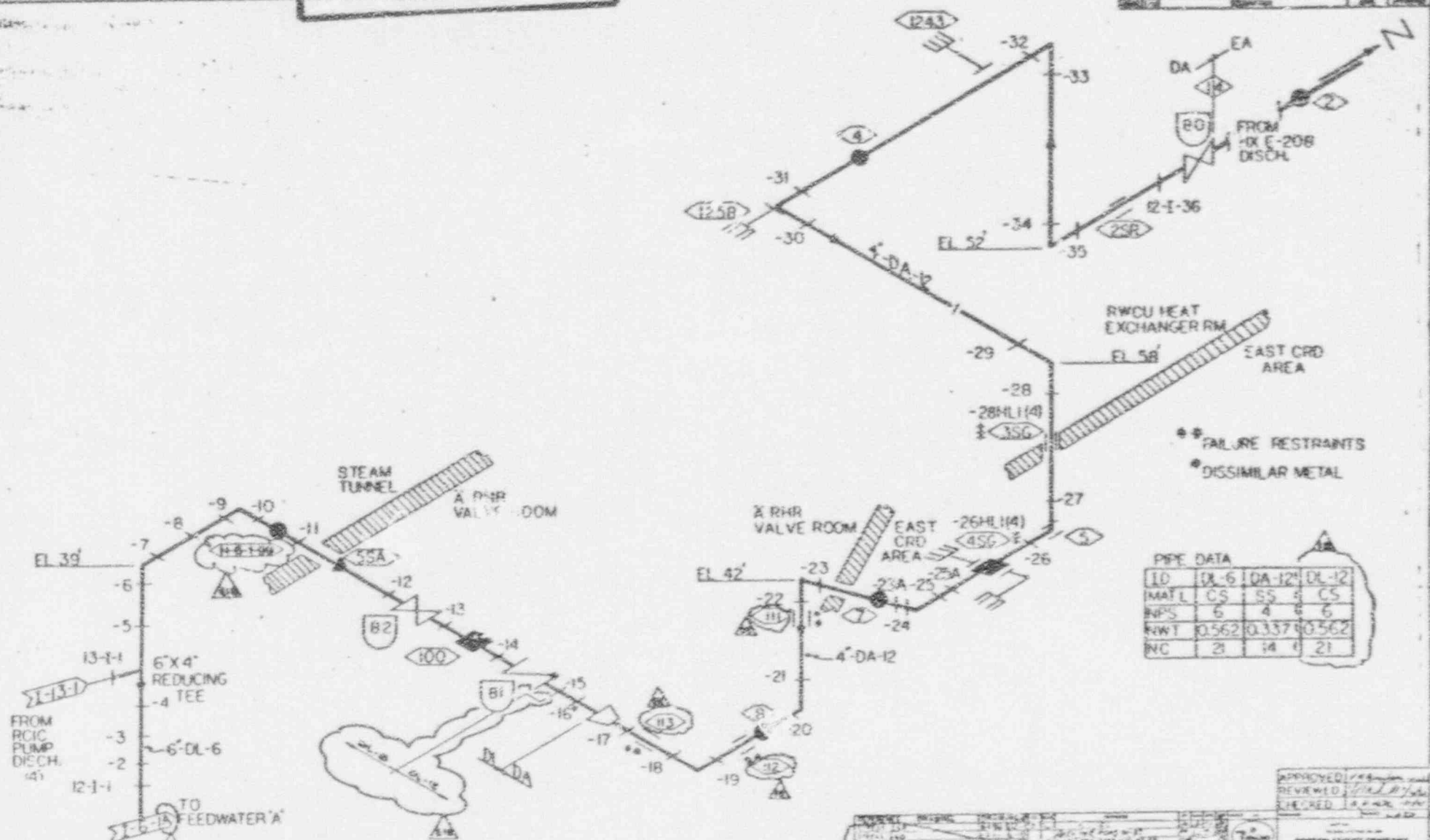
APPROVED: _____
REVIEWED: _____
CHECKED: _____

PROJECT NO.	12-1
DATE	12-1
BY	
CHECKED	
APPROVED	
REVISIONS	
1	
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31	
32	
33	

ACCEPTED FOR THIS DATE

INFORMATION ONLY

Use restricted to reference



PIPE DATA

ID	DL-6	DA-12	DL-12
MATL	CS	SS	CS
NPS	6	4	6
RWT	0.562	0.337	0.562
INC	21	14	21

APPROVED: [Signature]

REVIEWED: [Signature]

CHECKED: [Signature]

REACTOR WATER CLEAN-UP
WASHING & DISCH
CLEWELD LAB

BOSTON EDGECOR COMPANY

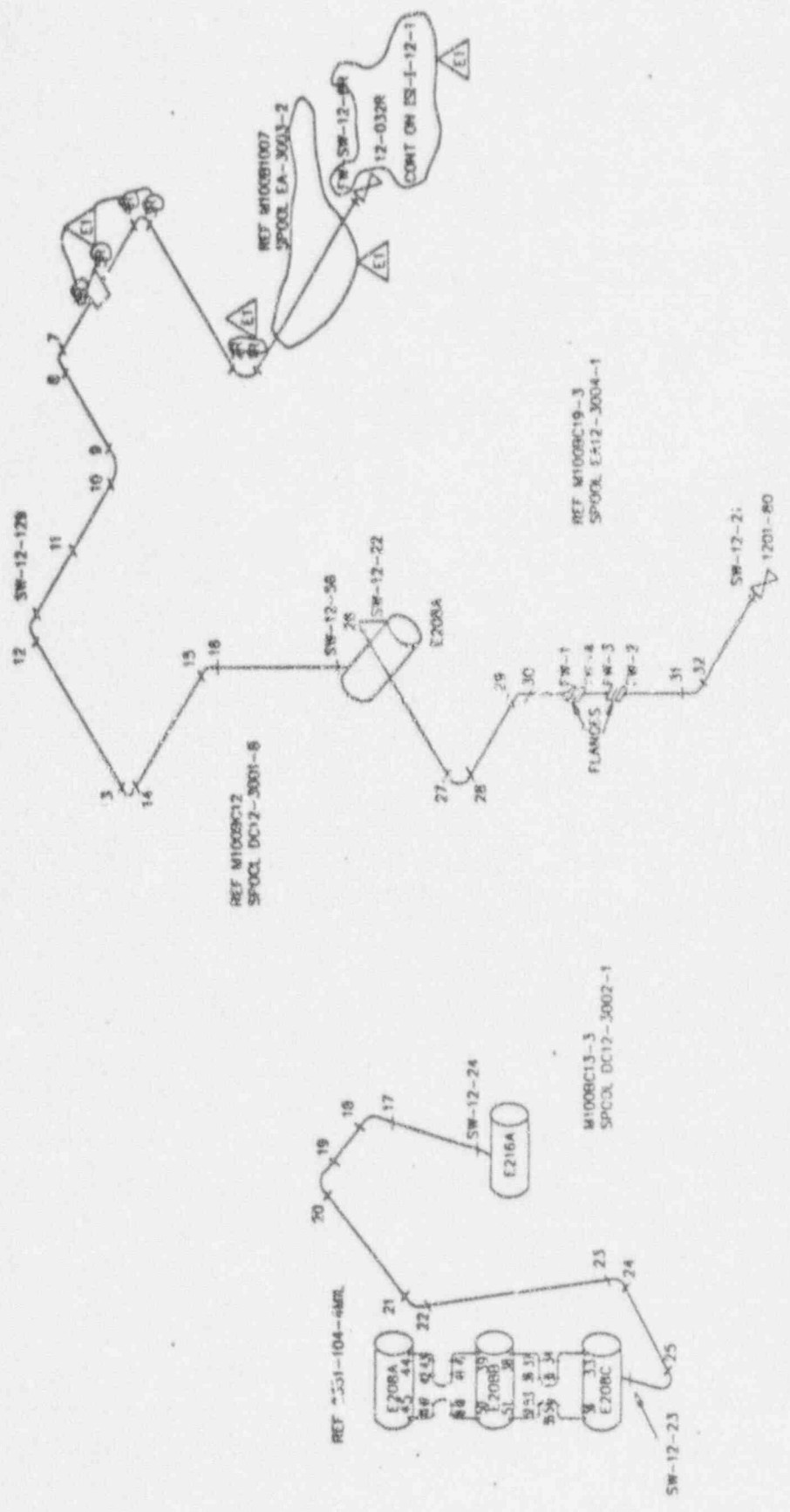
IS1 2

ACCEPTED AND
DATE 11/17/77

C B A A B C B

ONLY
Use restricted to
reference

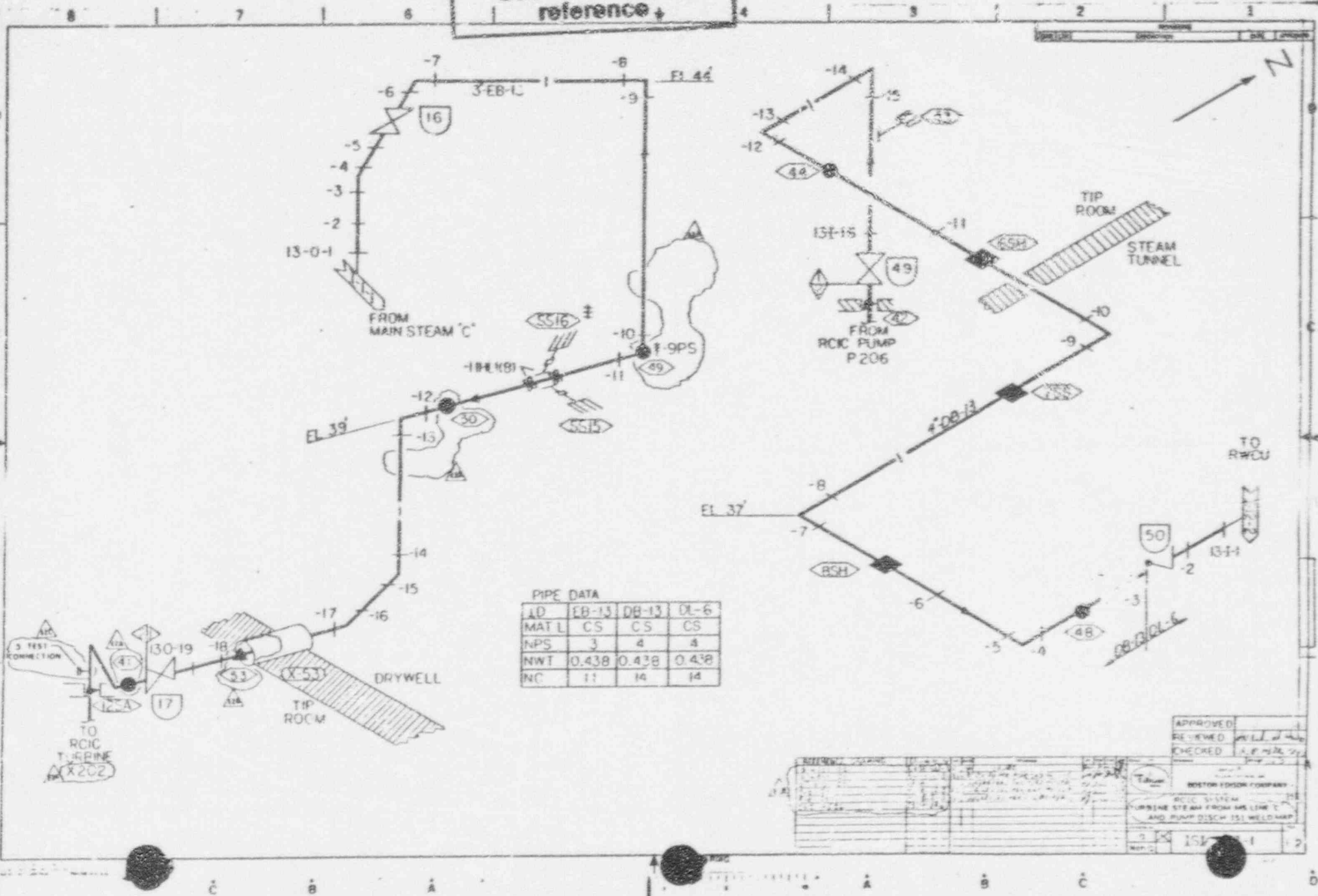
SKETCH 1
RWDU



SCALE	AS SHOWN	PROJECT NO.	100-1-12-3
DATE	10/1/59	DESIGNER	...
		BOSTON EDISON COMPANY RWDU SYSTEM HEAT EXCHANGER PIPING ISI WELD MAP	
NO.	0	ISSUE NO.	...
REV.	...	DATE	...

ACCEPTED RWDU 67

INFORMATION ONLY
 Use restricted to reference



PIPE DATA

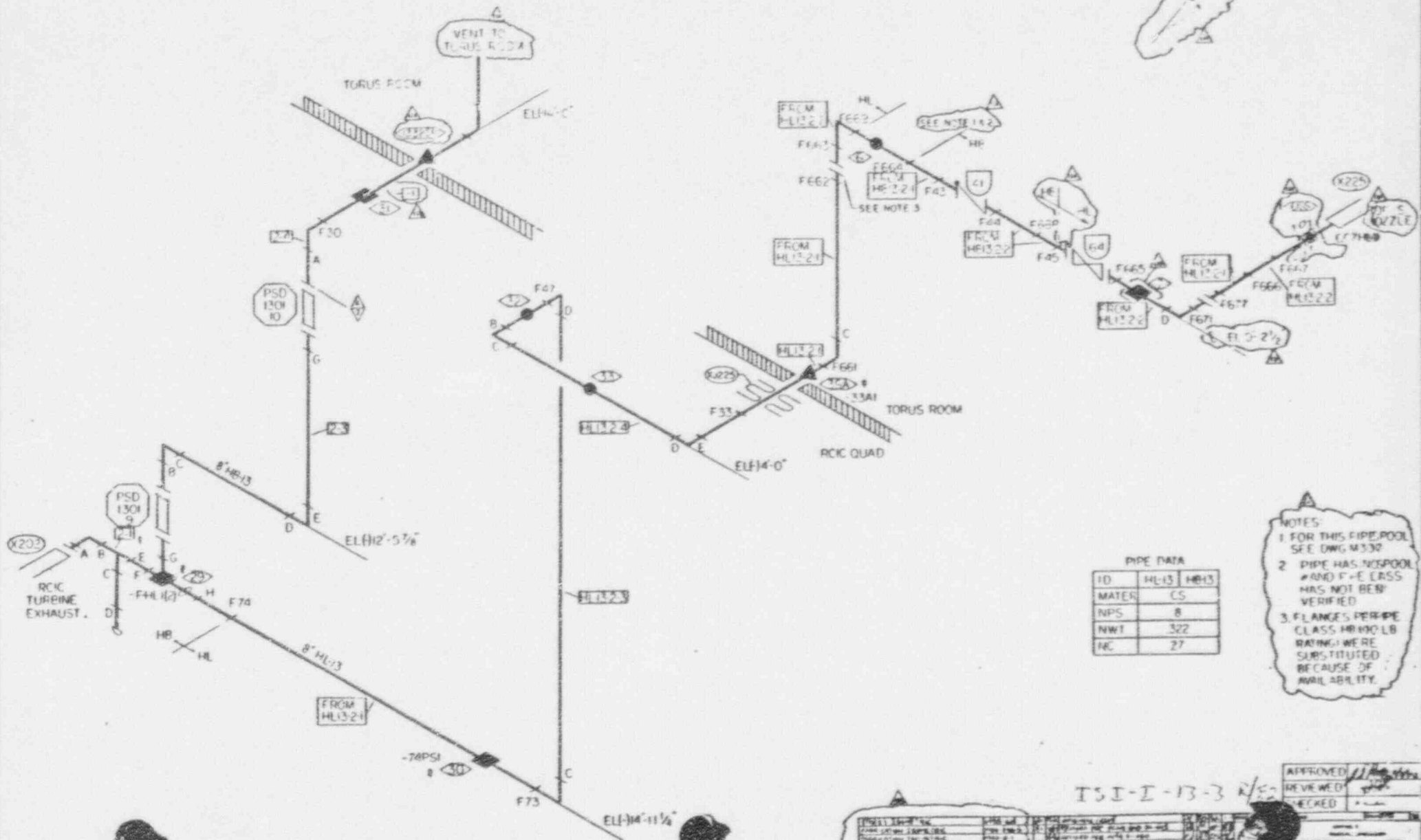
ID	EB-13	DB-13	DL-6
MAT L	CS	CS	CS
NPS	3	4	4
NWT	0.438	0.438	0.438
NC	11	14	14

APPROVED: _____
 REVIEWED: _____
 CHECKED: _____

BOSTON EDISON COMPANY
 RCIC SYSTEM
 TURBINE STEAM FROM MAIN LINE 'C'
 AND PUMP DISCH 151 WELD MAP

151-1

Use reflected to reference



PIPE DATA

ID	HL-13	HL-13
MATER	CS	
NPS	8	
NWT	322	
NC	27	

- NOTES:
- 1 FOR THIS PIPE POOL SEE DWG M332
 - 2 PIPE HAS NO SPOOL # AND F-E CLASS HAS NOT BEEN VERIFIED
 - 3 FLANGES PER PIPE CLASS HL100-LB RATINGS WERE SUBSTITUTED BECAUSE OF AVAILABILITY.

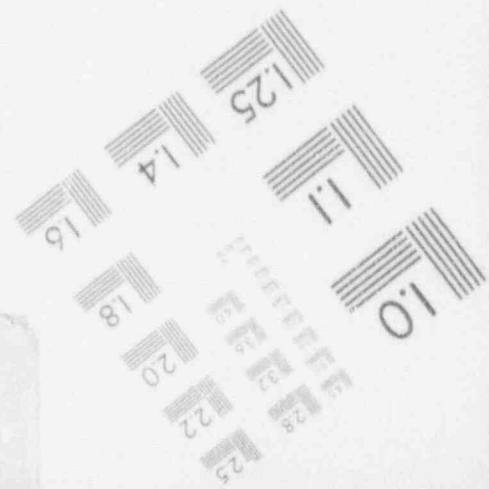
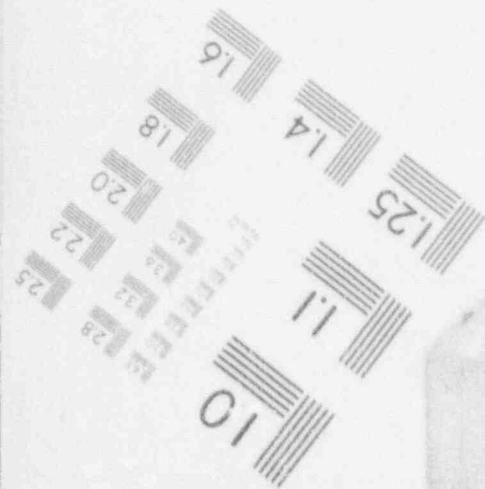
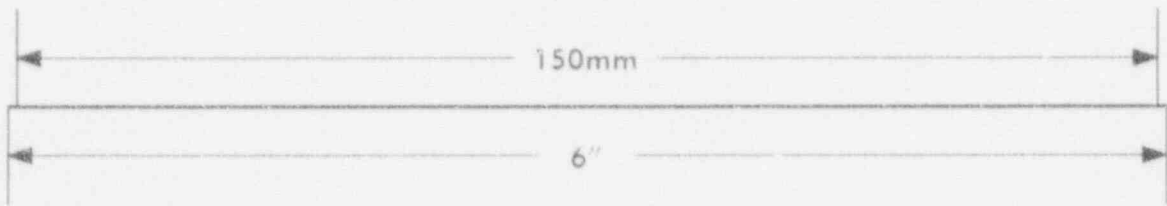
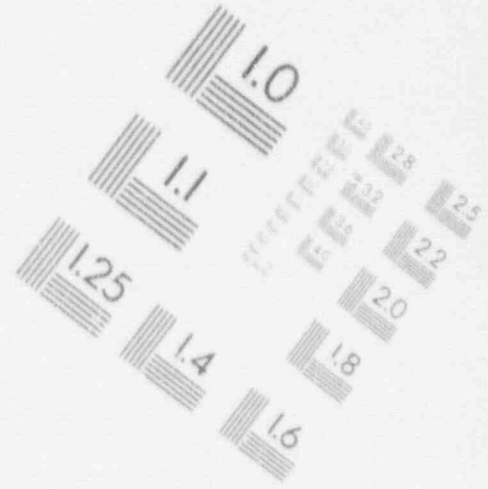
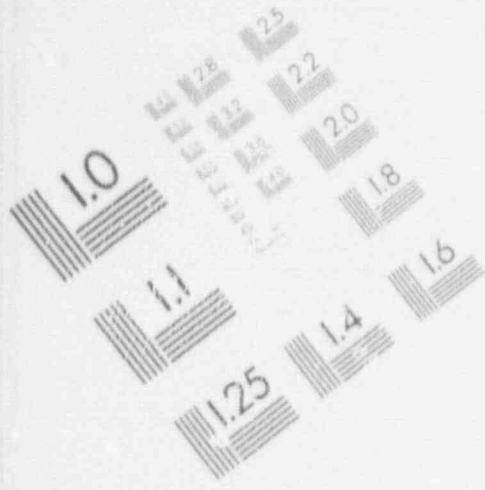
TSI-I-13-3 R/S

APPROVED	<i>[Signature]</i>
REVIEWED	<i>[Signature]</i>
CREATED	<i>[Signature]</i>

RCIC TURBINE EXHAUST

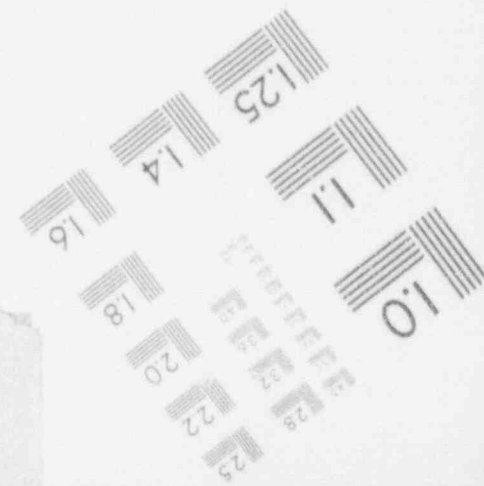
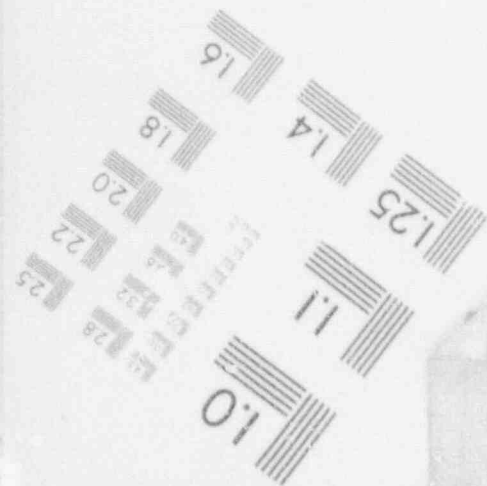
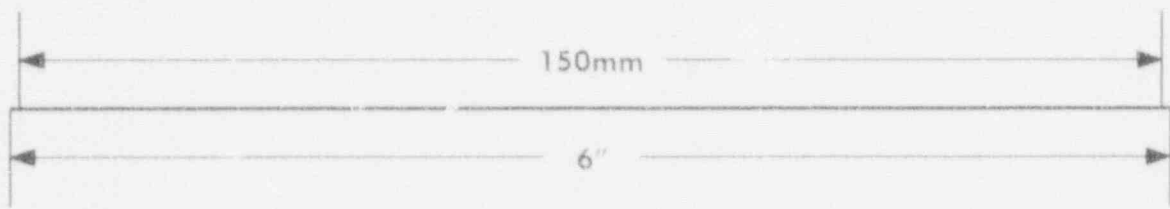
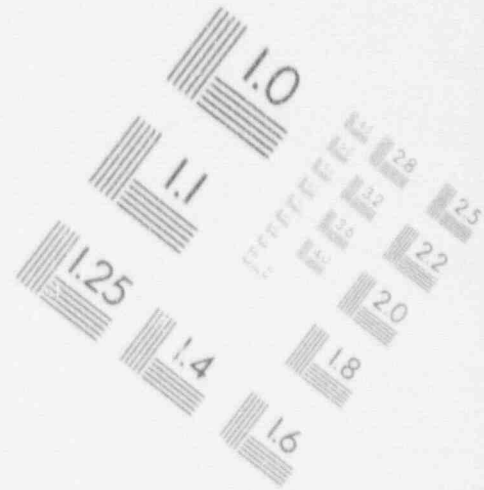
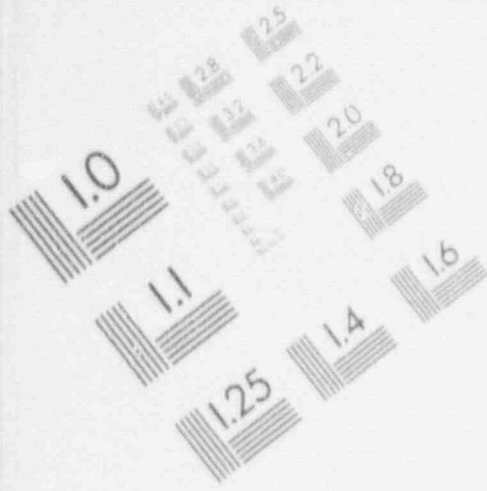
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IMAGE EVALUATION TEST TARGET (MT-3)

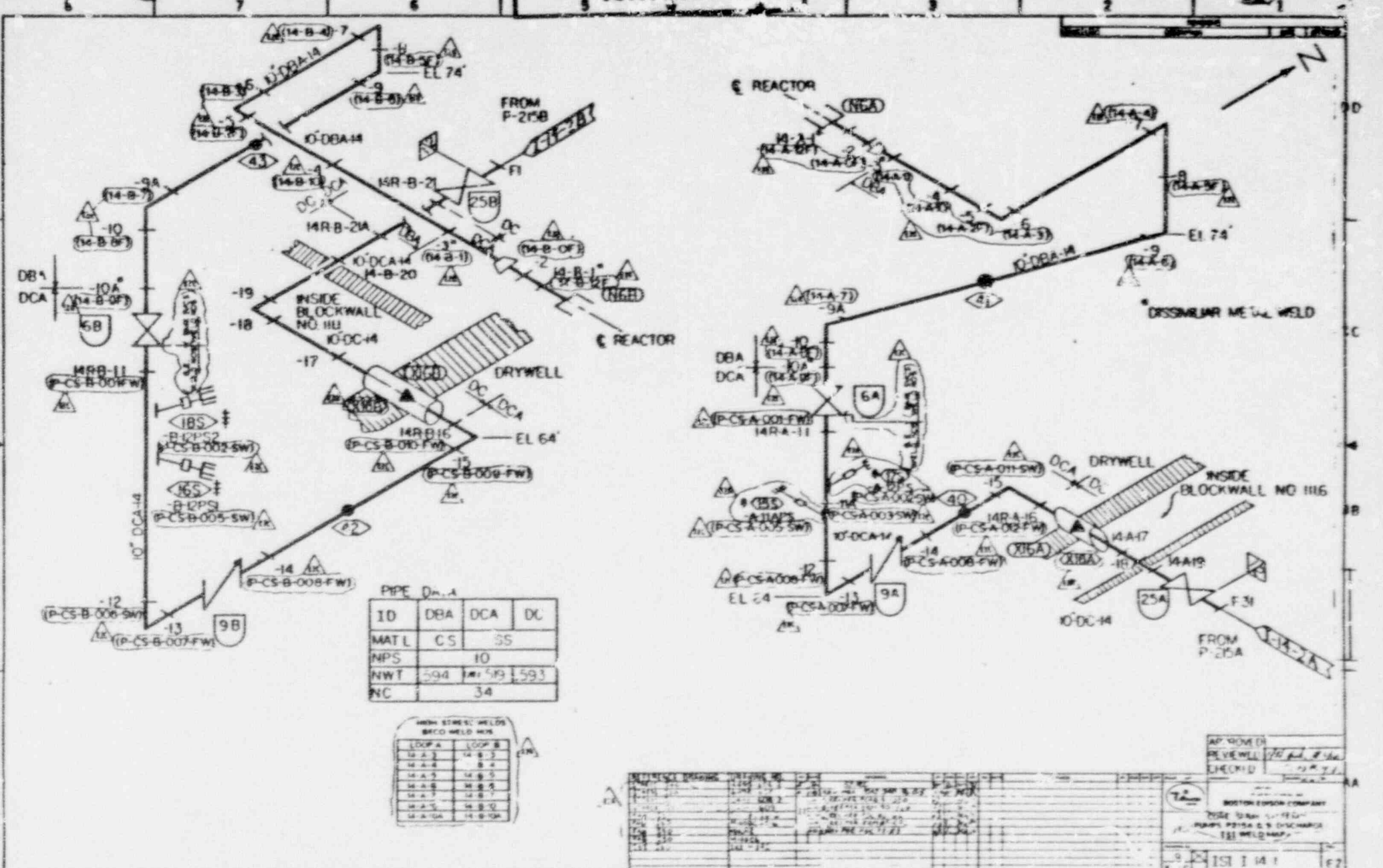


1

IMAGE EVALUATION TEST TARGET (MT-3)



Use rest of drawing to refer to



PIPE DATA

ID	DBA	DCA	DC
	CS	SS	
NPS	10		
NWT	594	519	593
WC	34		

HIGH STRESS WELDS
BECO WELD MAX

LOOP A	LOOP B
14-A-1	14-B-1
14-A-2	14-B-2
14-A-3	14-B-3
14-A-4	14-B-4
14-A-5	14-B-5
14-A-6	14-B-6
14-A-7	14-B-7
14-A-8	14-B-8
14-A-9	14-B-9
14-A-10	14-B-10

NO.	DESCRIPTION	DATE	BY	CHKD
1	ISSUED FOR CONSTRUCTION	11/15/57	J. J. ...	...
2	REVISION	11/15/57	J. J. ...	...
3	REVISION	11/15/57	J. J. ...	...
4	REVISION	11/15/57	J. J. ...	...
5	REVISION	11/15/57	J. J. ...	...
6	REVISION	11/15/57	J. J. ...	...
7	REVISION	11/15/57	J. J. ...	...
8	REVISION	11/15/57	J. J. ...	...
9	REVISION	11/15/57	J. J. ...	...
10	REVISION	11/15/57	J. J. ...	...

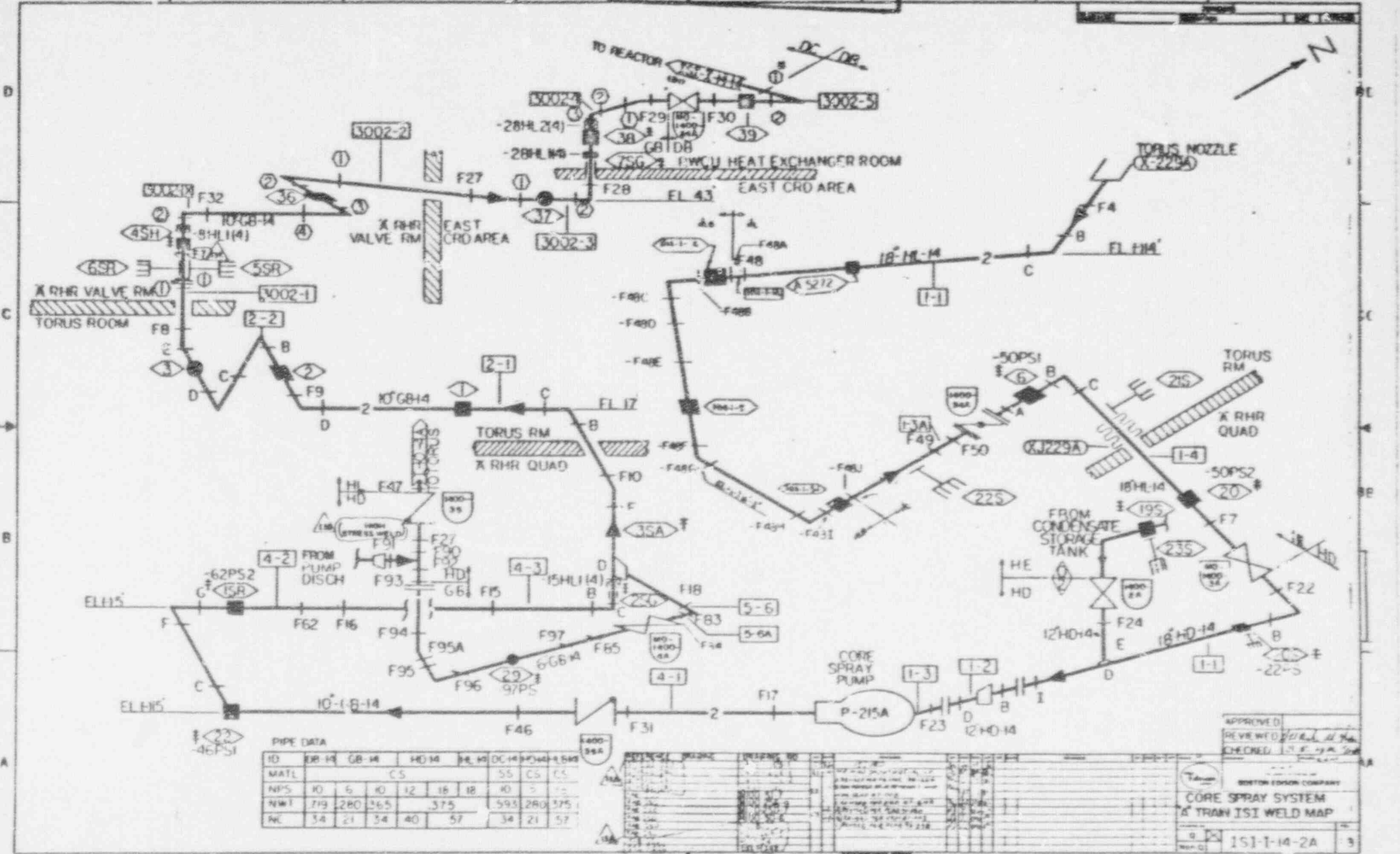
APPROVED
REVIEWED
CHECKED

BOSTON EDISON COMPANY
2000 SOUTH STREET
PUMPS, PIPES & DISCHARGES
WELD MAP

ISI 141



ONLY
U restricted to
reference



PIPE DATA

ID	OR	IN	GB	IN	HO	IN	DC	IN	CS	IN	CS	IN
									55	CS	CS	
NPS	10	6	10	12	18	18	10	5				
NWI	719	280	365		375		593	280	375			
NL	34	21	34	40	57		34	21	57			

NO.	DATE	BY	REVISION
1			
2			
3			
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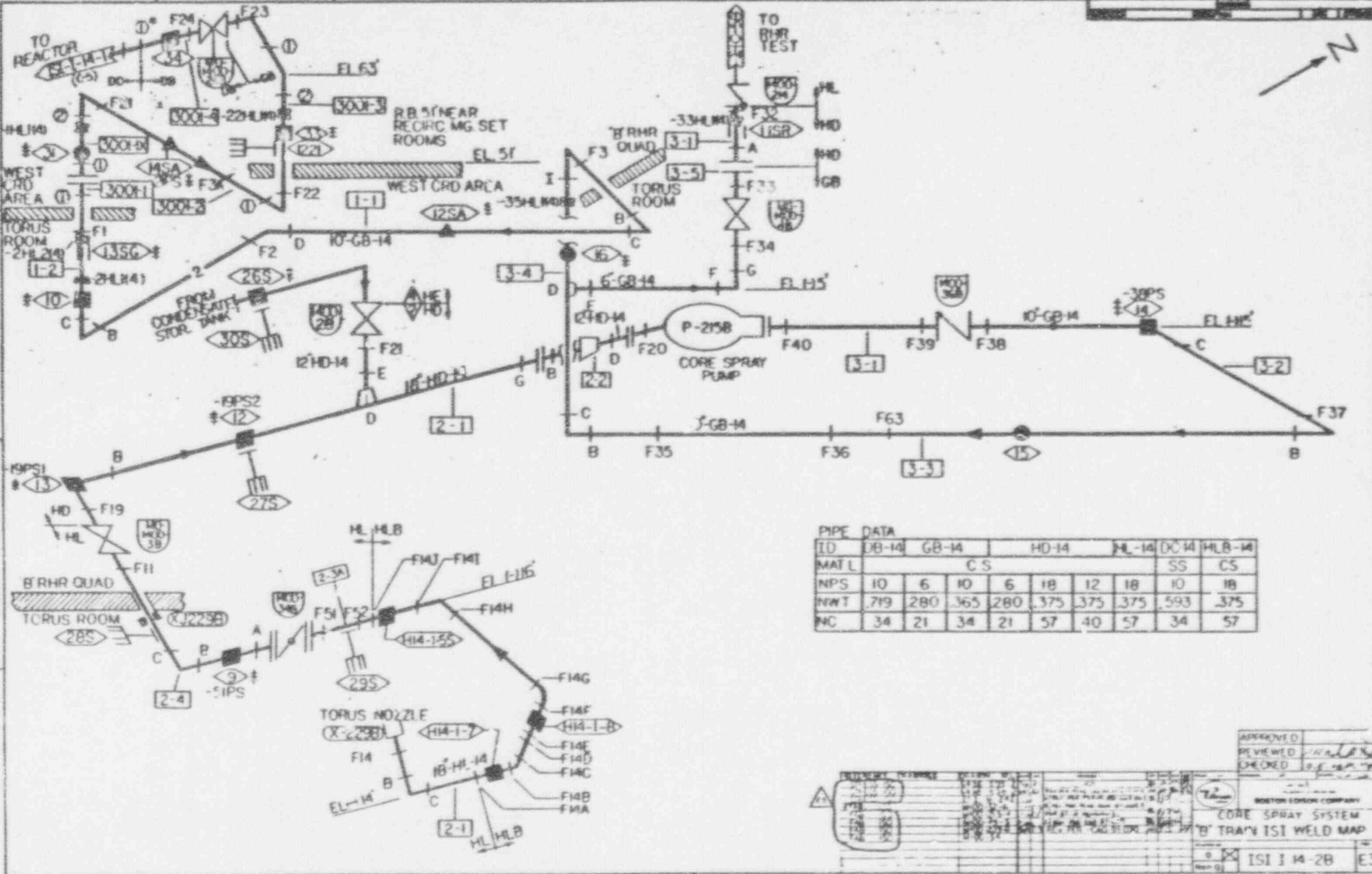
APPROVED: _____
 REVIEWED: _____
 CHECKED: _____

WESTON EDISON COMPANY
**CORE SPRAY SYSTEM
 & TRAIN ISI WELD MAP**

151-1-14-2A

ACCEPTED RNU
 THIS DATE: _____

Use restricted to reference



PIPE DATA

ID	DB-14	GB-14	HD-14	HL-14	HC-14	HLB-14	
MAT L	C S					SS	C S
NPS	10	6	10	6	18	12	18
NWT	719	280	365	280	375	375	593
WC	34	21	34	21	57	40	57

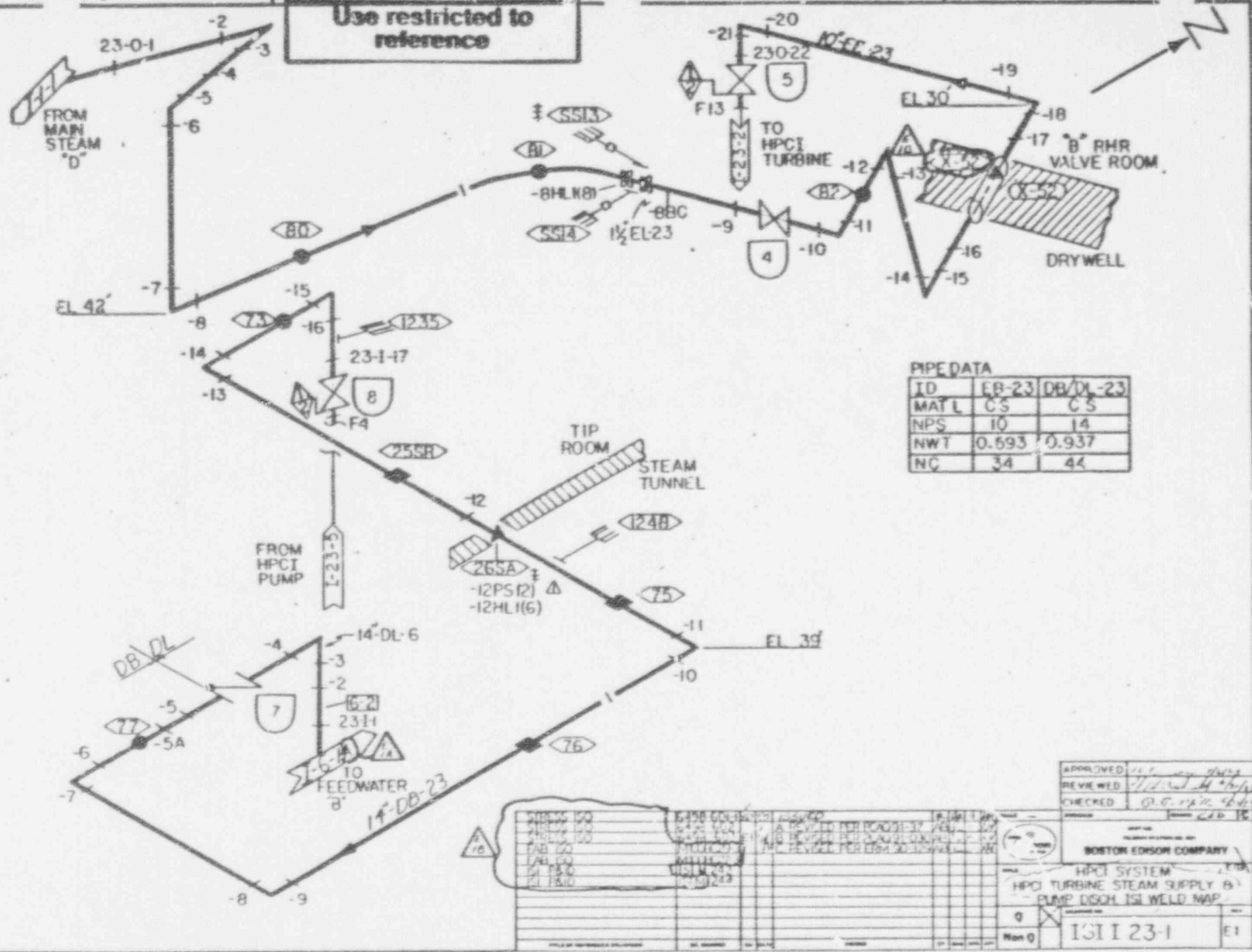
APPROVED	
REVIEWED	
CHECKED	
BOSTON Edison COMPANY	
CORE SPRAY SYSTEM	
TO TRAMP ISI WELD MAP	
ISI 14-2B	E3



RECEIVED THIS DATE

46-03-524

ONLY *date*
Use restricted to reference



PIPE DATA

ID	EB-23	DB/DL-23
MAT L	CS	CS
NPS	10	14
NWT	0.693	0.937
NC	34	44

NO.	DATE	DESCRIPTION	BY	CHKD
1	10/15/50	ISSUED FOR CONSTRUCTION	J. J. ...	...
2	11/15/50	REVISION	...	...
3	12/15/50	REVISION	...	...
4	1/15/51	REVISION	...	...
5	2/15/51	REVISION	...	...
6	3/15/51	REVISION	...	...
7	4/15/51	REVISION	...	...
8	5/15/51	REVISION	...	...
9	6/15/51	REVISION	...	...
10	7/15/51	REVISION	...	...
11	8/15/51	REVISION	...	...
12	9/15/51	REVISION	...	...
13	10/15/51	REVISION	...	...
14	11/15/51	REVISION	...	...
15	12/15/51	REVISION	...	...
16	1/15/52	REVISION	...	...

APPROVED: *[Signature]*
 REVIEWED: *[Signature]*
 CHECKED: *[Signature]*

BOSTON EDISON COMPANY

HPCI SYSTEM
 HPCI TURBINE STEAM SUPPLY B
 PUMP DISCH. ISI WELD MAP

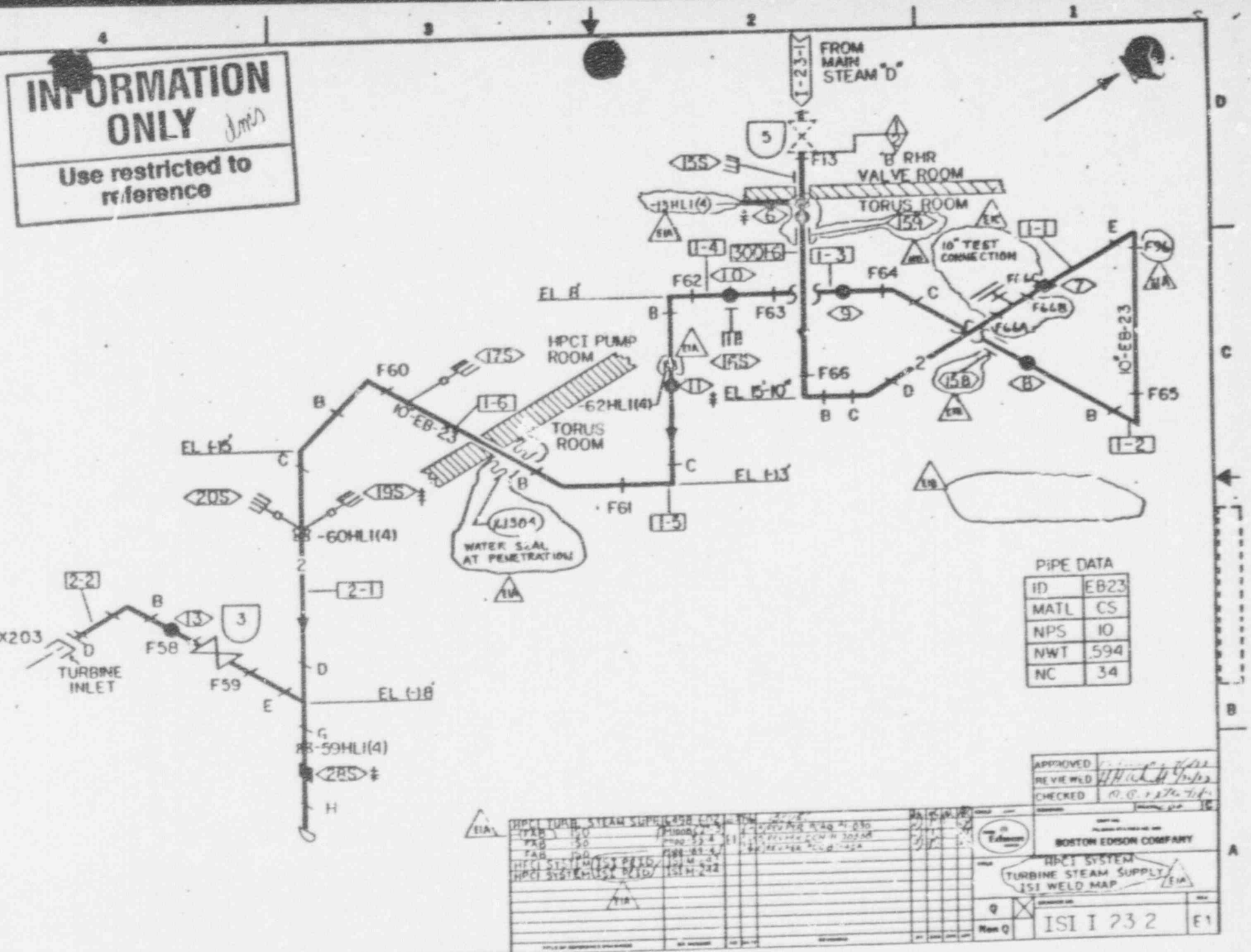
ISI I 23-1

ACCEPT THIS RMG



INFORMATION ONLY

Use restricted to reference



PIPE DATA

ID	EB23
MATL	CS
NPS	10
NWT	.594
NC	34

APPROVED	
REVISED	
CHECKED	

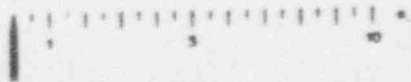
TYPE	DATE	BY	DESCRIPTION
TRK	120		
TRK	50		
TRK	100		
HPCI SYSTEM			
HPCI SYSTEM			

BOSTON EDISON COMPANY

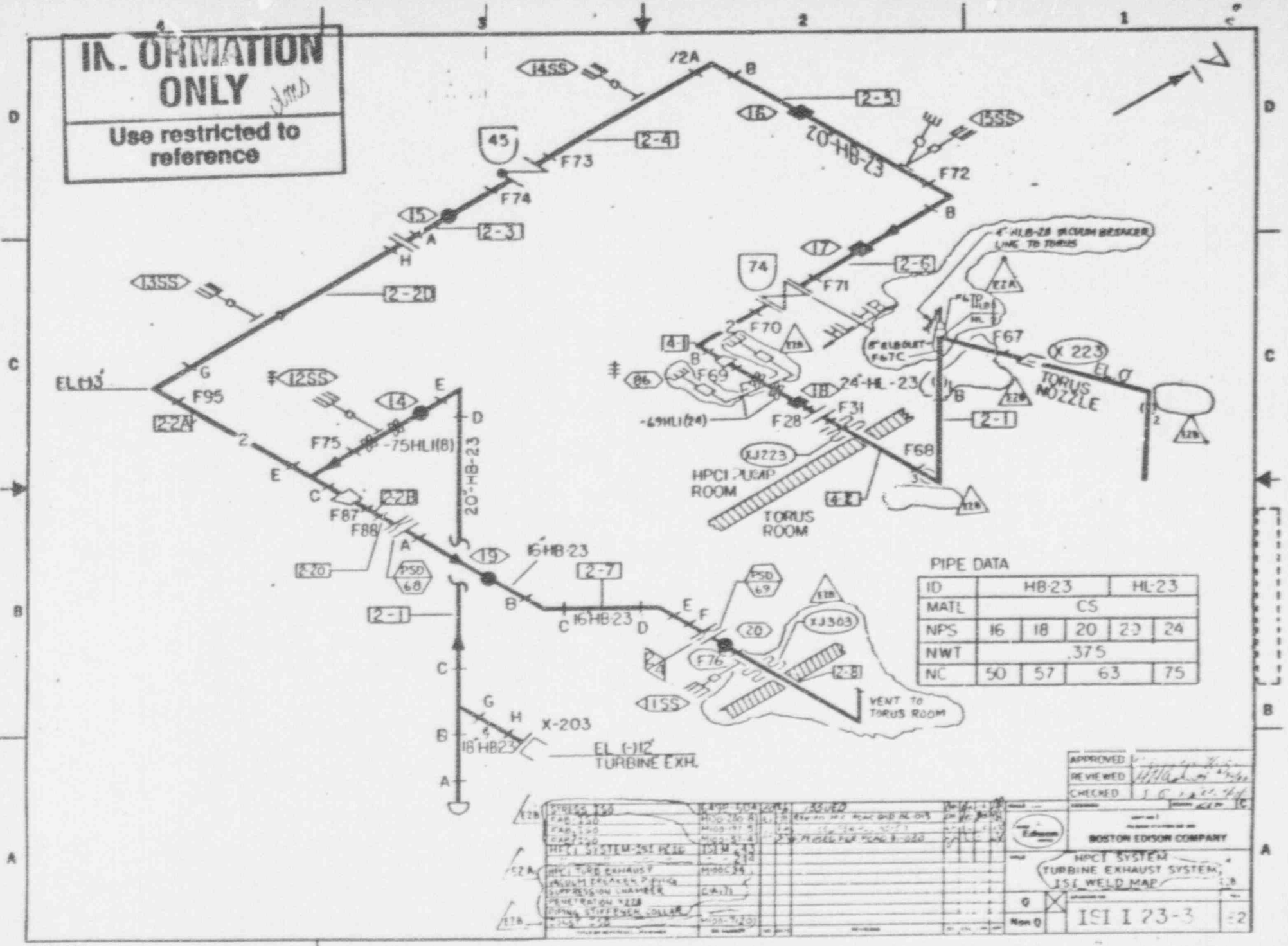
HPCI SYSTEM
TURBINE STEAM SUPPLY
ISI WELD MAP

ISI I 23 2 E1

ACCEPTED RMG
THIS DATE



INFORMATION ONLY
 Use restricted to reference



PIPE DATA

ID	HB-23	HL-23
MATL	CS	
NPS	16	18 20 23 24
NWT	.375	
NC	50	57 63 75

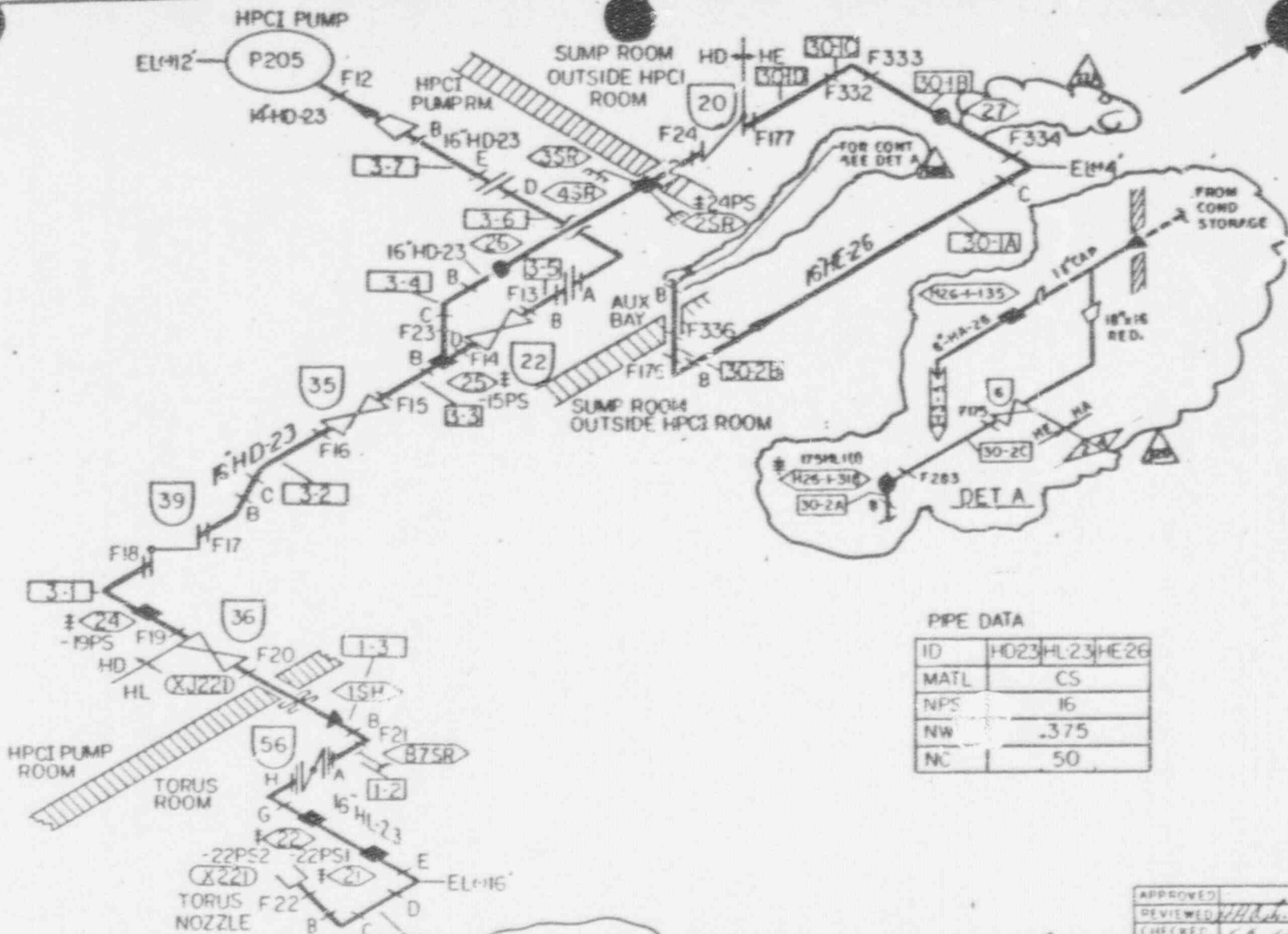
APPROVED
 REVIEWED
 CHECKED

BOSTON EDISON COMPANY
 HPCI SYSTEM
 TURBINE EXHAUST SYSTEM
 ISI WELD MAP
 ISI 173-3

NO.	DESCRIPTION	DATE	BY	REVISION
1	ISSUED FOR CONSTRUCTION	10/15/73	J. J. [unclear]	1
2	REVISION			
3	REVISION			
4	REVISION			
5	REVISION			
6	REVISION			
7	REVISION			
8	REVISION			
9	REVISION			
10	REVISION			

ACCEPTED PMG
 THIS DATE

reference



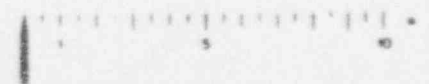
PIPE DATA

ID	HO23	HL23	HE26
MATL	CS		
NPS	16		
NW	.375		
NC	50		

STRESS TAG	DESIGN PRESSURE	DESIGN TEMP	DESIGN CODE
FAD 150	150	150	150
FAD 250	250	250	250
FAD 350	350	350	350
FAD 450	450	450	450
FAD 550	550	550	550
FAD 650	650	650	650
FAD 750	750	750	750
FAD 850	850	850	850
FAD 950	950	950	950
FAD 1050	1050	1050	1050

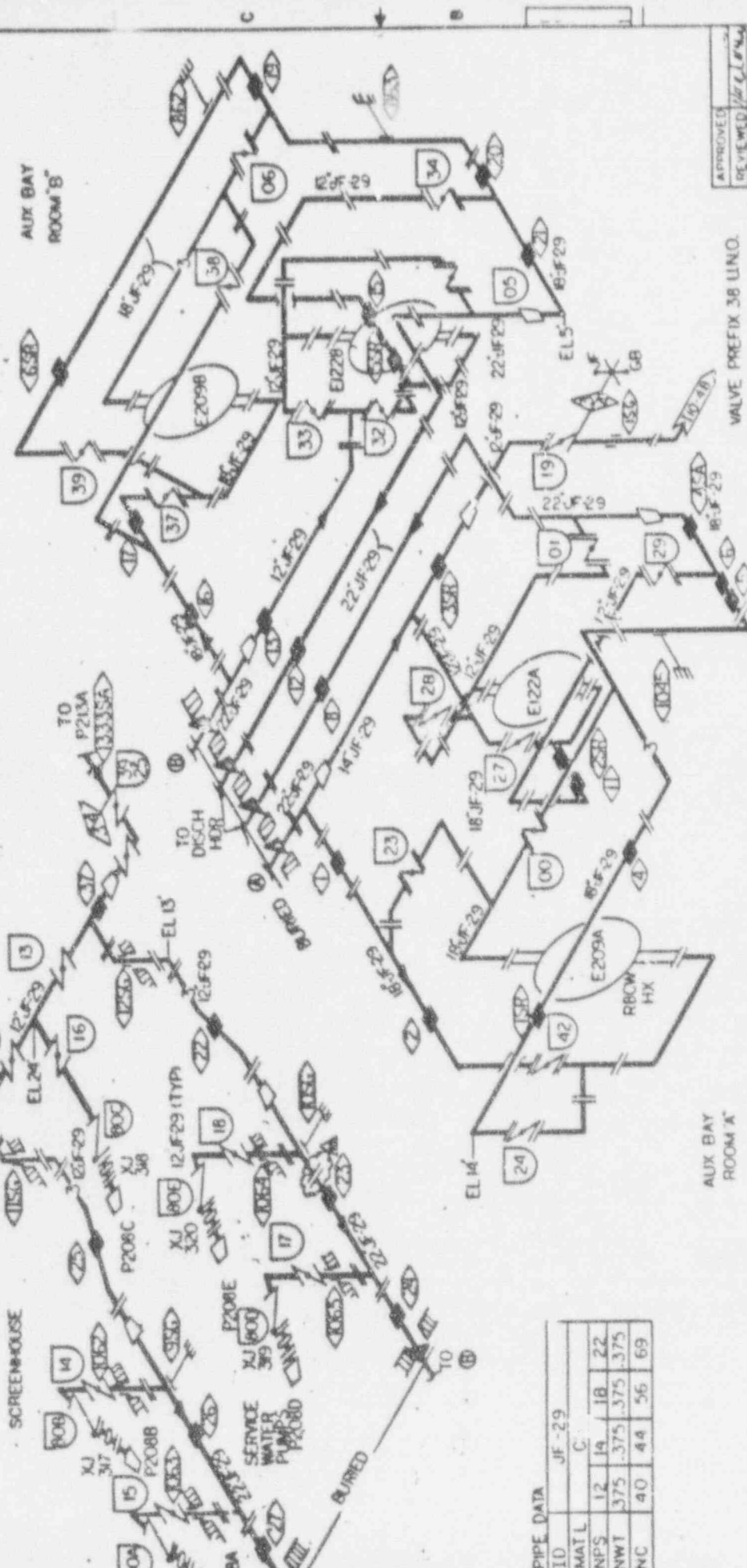
APPROVED	
REVIEWED	
CHECKED	
BOSTON EDISON COMPANY	
HPCI SYSTEM HPCI PUMP SUCTION ISI WELD MAP	
Q	ISI123 4
Non Q	12

ACCEPTED RMG
THIS DATE



C B A A B C

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 Use restricted to
 reference



PIPE DATA

ID	JF-29	C
12	14	18 22
NWT	375	375 375 375
NC	40	44 56 69

VALVE PREFIX 38 LINO.

AUX BAY ROOM 'A'

AUX BAY ROOM 'B'

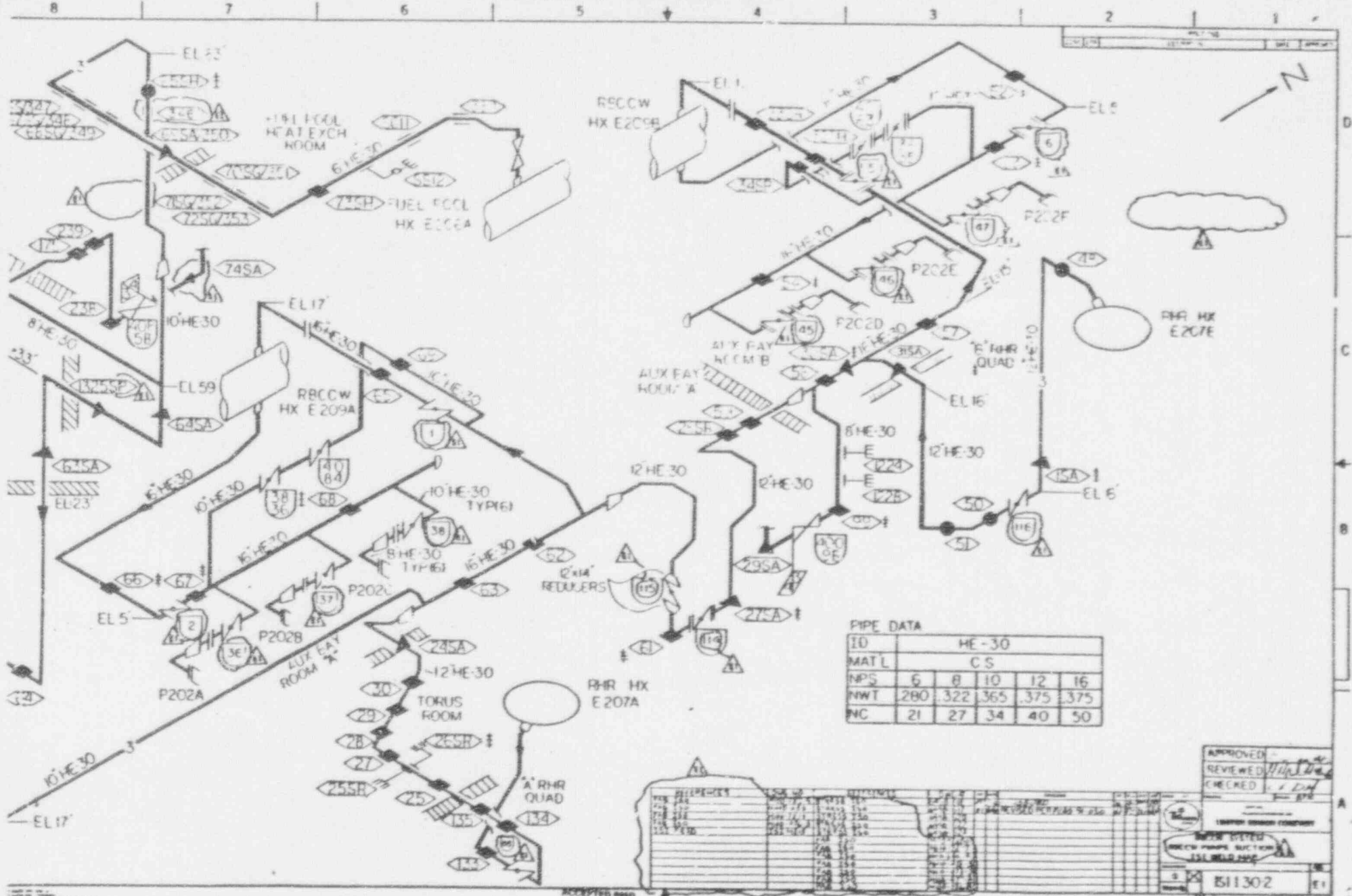
APPROVED: [Signature]
 REVIEWED: [Signature]
 DATE: 11/12/01

NO.	DATE	DESCRIPTION
1	11/12/01	ISSUED FOR CONSTRUCTION
2		
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8		
9		
10		

POCA # 91-2A
OUTSTANDING TO
 THE WORK IS BEING

RECEIVED HERE
 THIS DATE: 10/12/01

ONE
Use restricted to reference



PIPE DATA

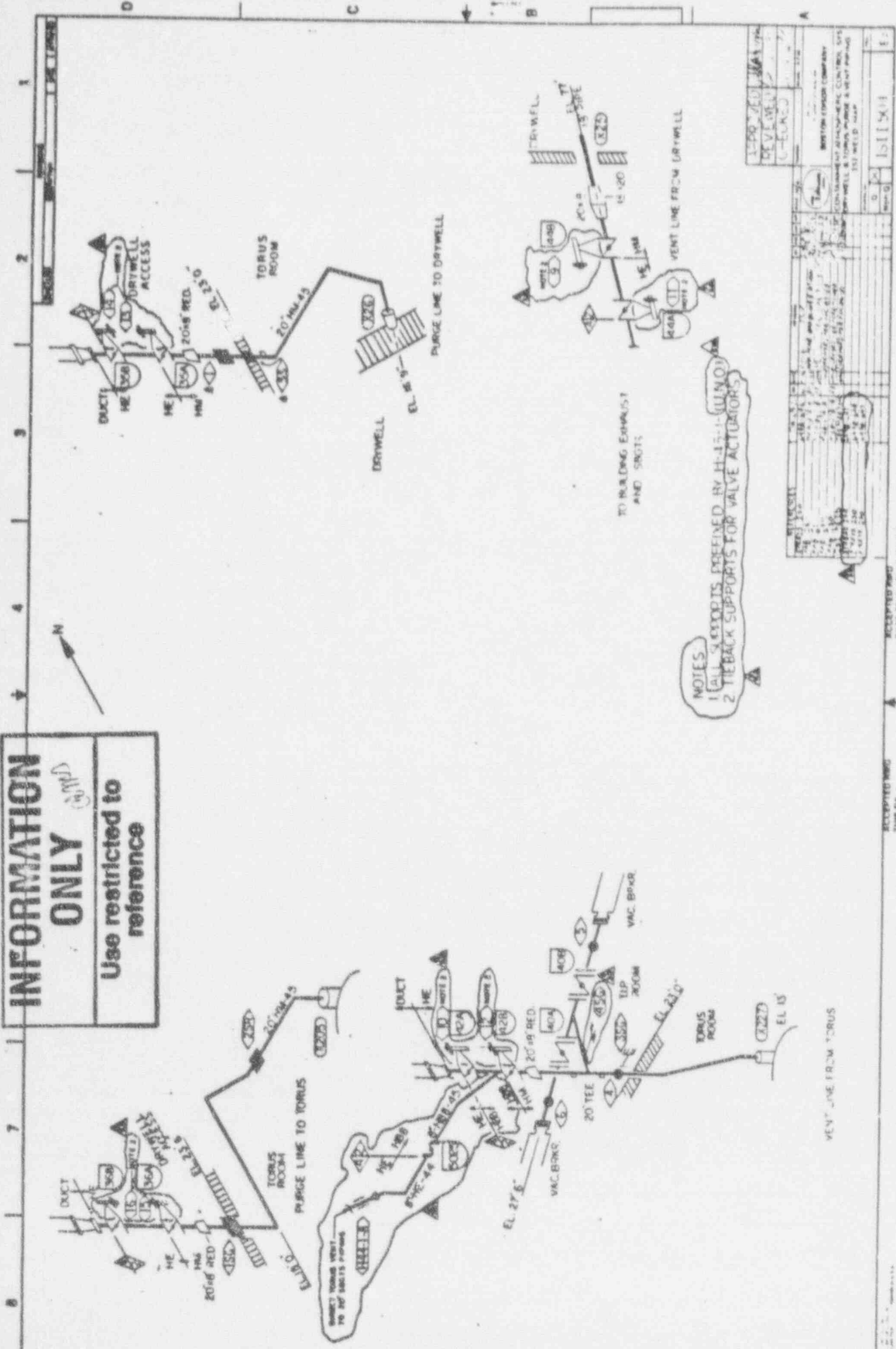
ID	HE-30				
MATL	C S				
NPS	6	8	10	12	16
NWT	280	322	365	375	375
INC	21	27	34	40	50

NO.	DESCRIPTION	DATE	BY	CHECKED	REVISION

APPROVED: _____
 REVIEWED: _____
 CHECKED: _____
 SUPERVISOR
 DATE: _____
 511302

ACCEPTED AND DATE: _____

INFORMATION ONLY
copy
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NOTES
 1. ALL SYSTEMS RECEIVED BY H. J. J. (U.N.O.)
 2. TIEBACK SUPPORTS FOR VALVE ACTUATORS

PROJECT	DATE	BY	CHKD
REVISION	DATE	BY	CHKD
1-20-70	20-70
2-10-70	10-70
3-10-70	10-70
4-10-70	10-70
5-10-70	10-70
6-10-70	10-70
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10-10-70	10-70
11-10-70	10-70
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99-10-70	10-70
100-10-70	10-70

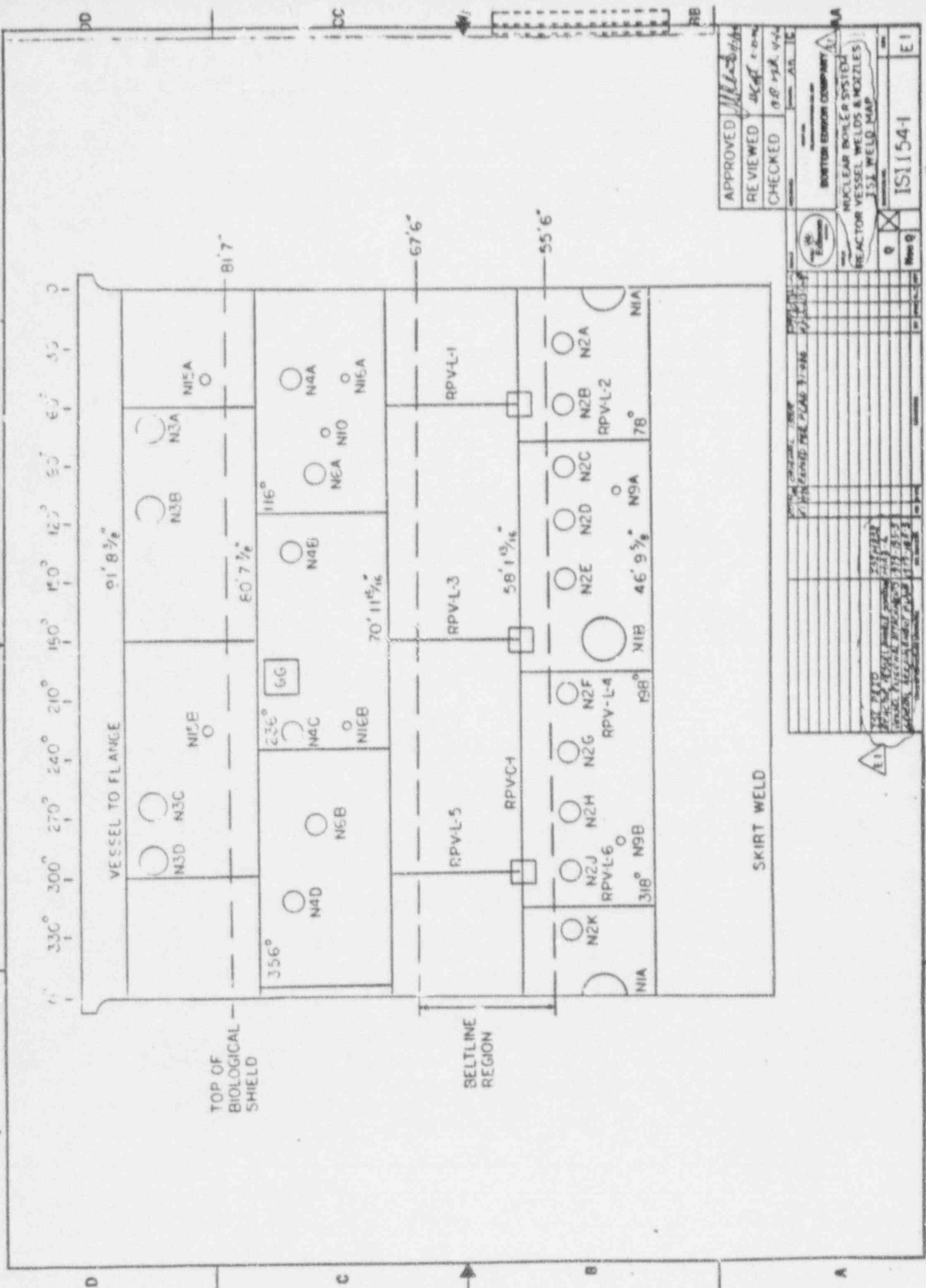
ACCEPTED FOR THIS DATE THIS DATE

DATE THIS DATE

VENT LINE FROM TORUS ROOM

1
2
3
4
5
6
7
A
B
C

WILL
 Use restricted to reference



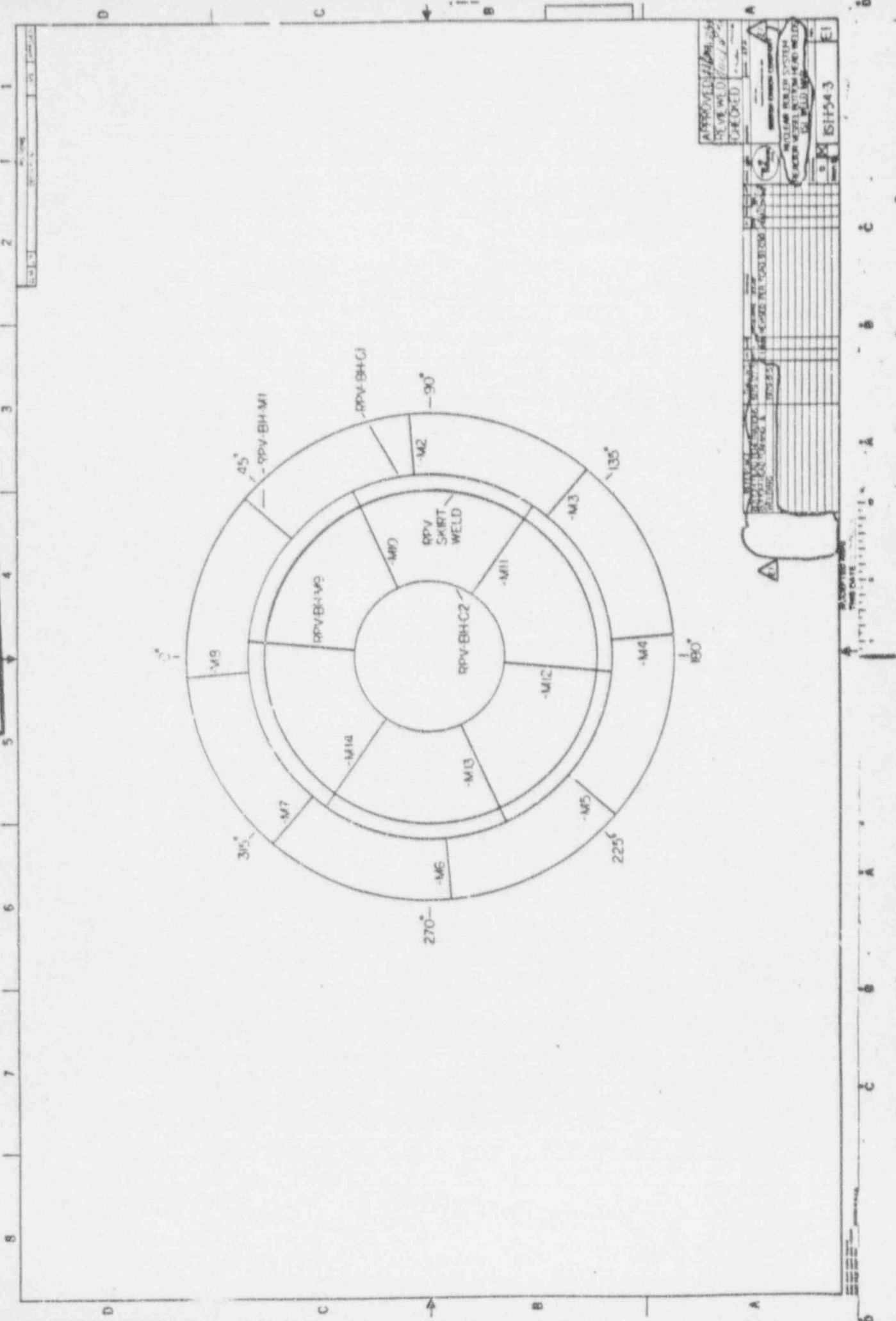
APPROVED	<i>[Signature]</i>
REVIEWED	<i>[Signature]</i>
CHECKED	<i>[Signature]</i>

BOSTON EDISON COMPANY
 NUCLEAR BOILER SYSTEMS
 REACTOR VESSEL WELDS & NOZZLES
 JIS WELD MAP

IS11541 E1

NO.	DESCRIPTION	DATE	BY	CHKD.
1	ISSUED FOR CONSTRUCTION	11/15/54	J. J. [Signature]	[Signature]
2	REVISION			
3	REVISION			
4	REVISION			
5	REVISION			
6	REVISION			
7	REVISION			
8	REVISION			
9	REVISION			
10	REVISION			

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APPROVED FOR RELEASE BY THE NATIONAL ARCHIVES
 REF ID: A66543

DATE: 11/11/2013
 TIME: 10:10:10
 USER: 10.10.10.10

ONLY

Use restricted to reference

