

COVER SHEET

IRE04 INSERVICE INSPECTION SUMMARY REPORT
FOR SYSTEM PRESSURE TESTS
(CLASS 1 AND 2)

AT THE

SOUTH TEXAS PROJECT ELECTRIC GENERATING STATION UNIT 1
P. O. Box 289
Wadsworth, Texas 77483

USNRC DOCKET NO.: 50-498

OPERATING LICENSE NO.: NPF-76

COMMERCIAL OPERATION DATE: August 25, 1988

Prepared by: *A.P. Pathak* 3-25-93
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S. Timmaraju, Sr. Consulting Engineer - Codes & Standards

Approved by: *M. Pacy* 3-25-93
M. Pacy, Manager - Design Engineering Department.

SCOPE

IRE04 SYSTEM PRESSURE TESTS

The examinations summarized in this report were performed in accordance with the 1983 Edition through Summer 1983 Addenda of the ASME Code, Section XI which is applicable to the South Texas Project Electric Generating Station Unit 1. This report covers selected ASME Code Class 1 and 2 Systems/Components. Examinations and tests required by the Code are scheduled in accordance with "Inspection Program B" as defined in IWB-2412 and IWC-2412 for ASME Code Class 1 and 2 Systems/Components. All ASME Code Class 1 components were examined as prescribed by Table IWB-2500-1, Examination Category B-P which established the examination frequency at each refueling outage. The ASME Code Class 2 Systems/Components were selected on a random basis. This random selection process will continue until all ASME Code Class 2 Systems/Components are examined in accordance with Table IWC-2500-1, Examination Category C-H. This examination category for ASME Code Class 2 Systems/Components established the examination frequency at each inspection period. The remaining second period examinations are anticipated to be completed by the end (8-25-95) of the second inspection period.

The System Leakage Test [IWA-5211(a)] conducted on Class 1 Systems/Components in accordance with Examination Category B-P also satisfied the system pressure test required by IWA-5214(e) subsequent to the disassembly and reassembly of mechanical joints in ASME Code Class 1 Systems/Components.

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

1. Owner Houston Lighting & Power Company Electric Tower, P. O. Box 1700, Houston, TX 77001
 (Name and Address of Owner)
2. Plant South Texas Project Electric Generating Station P. O. Box 289, Wadsworth, TX 77483
 (Name and Address of Plant)
3. Plant Unit 1 4. Owner Certificate of Authorization (if required) N/A
5. Commercial Service Date 08/25/88 6. National Board Number for Unit N/A
7. Components Inspected ASME CODE CLASS 1 PIPING AND COMPONENTS

Component or Appurtenance	Manufacturer or Installer	Manufacturer or Installer Serial No.	State or Province No.	National Board No.
REACTOR VESSEL 1R10INRV101A	COMBUSTION ENGINEERING/ WESTINGHOUSE (M)	11073	N/A	22190
SIM. GENERATOR 1R12INSG101A	WESTINGHOUSE (M)	2131	N/A	W18691
SIM. GENERATOR 1R12INSG101B	WESTINGHOUSE (M)	2132	N/A	W18692
SIM. GENERATOR 1R12INSG101C	WESTINGHOUSE (M)	2133	N/A	W18693
SIM. GENERATOR 1R12INSG101D	WESTINGHOUSE (M)	2134	N/A	W18694
PRESSURIZER 1R11INPZ101A	WESTINGHOUSE (M)	2141	N/A	W18590
RC PUMP 1R13INPP101A	WESTINGHOUSE (M)	1-115E580G01	N/A	28
RC PUMP 1R13INPP101B	WESTINGHOUSE (M)	2-115E580G01	N/A	29
RC PUMP 1R13INPP101C	WESTINGHOUSE (M)	3-115E580G01	N/A	30
RC PUMP 1R13INPP101D	WESTINGHOUSE (M)	4-115E580G01	N/A	31
CLASS 1 PIPING	EBASCO (I)	N/A	N/A	N/A
CLASS 1 VALVES	VARIOUS	N/A	N/A	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-1 (Back)

8. Examination Dates 04/05/91 to 01/01/93 9. Inspection Interval from 08/25/88 to 08/25/98
10. Abstract of Examinations. Include a list of examinations and a statement concerning status of work required for current interval. Refer to Supplemental Sheet Page 3 of 3.
11. Abstract of Conditions Noted
No relevant conditions affecting pressure retaining boundaries were noted.
12. Abstract of Corrective Measures Recommended and Taken
Refer to Supplemental Sheet Page 3 of 3.

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.

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

Date March 12, 19 93 Signed Houston Lighting & Power Co. By D. C. Leazar
Owner D. A. Leazar
Plant Engineering 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 Texas and employed by Arkwright Mutual Insurance Co. of Norwood, MASS. have inspected the components described in this Owner's Report during the period 12-9-92 to 3-22-93, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the inspection plan and as required by the ASME Code, Section XI.

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

FACTORY MUTUAL SYSTEM

B. R. Russell Commissions TX-826
B. R. Russell, Inspector's Signature National Board, State, Province, and Endorsements

Date 3-22-19 93

SUPPLEMENTAL
FOR
ASME CODE CLASS 1 PIPING AND COMPONENTS

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1. Owner Houston Lighting & Power Company Electric Tower, P. O. Box 1700, Houston, TX 77001
(Name and Address of Owner)
2. Plant South Texas Project Electric Generating Station P. O. Box 289, Wadsworth, TX 77483
(Name and Address of Plant)
3. Plant Unit 1 4. Owner Certificate of Authorization (if required) N/A
5. Commercial Service Date 08/25/88 6. National Board Number for Unit N/A
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10. ABSTRACT OF EXAMINATIONS

A System Leakage Test as prescribed by IWA-5211(a) for all ASME Code Class 1 Pressure Retaining Components was conducted in accordance with Table IWB-2500-1, Examination Category B-P, Item Nos. B15.10, B15.20, B15.30, B15.40, B15.50, B15.60 and B15.70.

The Pressure Test and VT-2 visual examinations were conducted in accordance with Plant Surveillance Pressure Test Procedure, OPSP15-RC-0001, Reactor Coolant System Leakage Pressure Test (Rev. 0) at the conclusion of the fourth refueling outage. ASME Code Class 1 piping and valves are specifically identified in the above referenced procedure.

In addition, the above System Leakage Test also satisfied the requirement for a System Pressure Test subsequent to the disassembly and reassembly of mechanical joints in ASME Code Class 1 components as prescribed by IWA-5214(e).

Also, System Pressure Tests subsequent to the disassembly and reassembly of mechanical joints in ASME Code Class 1 components as prescribed by IWA-5214(e) were conducted in accordance with OPGP03-ZE-0027, ASME Section XI Post-Maintenance Pressure Tests (Rev. 3) for individual work items performed outside the scope of the fourth refueling outage.

12. ABSTRACT OF CORRECTIVE MEASURES RECOMMENDED AND TAKEN

The Visual Examinations (VT-2) performed during these Pressure Tests found minor leakage at mechanical joints such as valve stems and flanged connections. These leaks were evaluated and determined acceptable for continued system operation. Appropriate corrective action was initiated to correct these leaks. A leak was found at the control rod drive mechanism at the top of the reactor vessel. This leak was from a seal weld and although not a Class 1 boundary the reactor coolant system was depressurized. The leak was repaired and retested satisfactorily.

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

Page 1 of 4

1. Owner Houston Lighting & Power Company Electric Tower, P.O. Box 1700, Houston, TX 77001
(Name and Address of Owner)
2. Plant South Texas Project Electric Generating Station P.O. Box 289, Wadsworth, TX 77483
(Name and Address of Owner)
3. Plant Unit 1 4. Owner Certificate of Authorization (if required) N/A
5. Commercial Service Date 08/25/88 6. National Board Number for Unit N/A
7. Components Inspected ASME CODE CLASS 2 PIPING AND COMPONENTS

Component or Appurtenance	Manufacturer or Installer	Manufacturer or Installer Serial No.	State or Province No.	National Board No.
RWST 1A 2N121NTF101A	BROWN MINNEAPOLIS (M)	1100-15	N/A	N/A
HHSI PMP 1A 2N121NPA101A	PACIFIC PUMPS (M)	51695	N/A	382
HHSI PMP 1B 2N121NPA101B	PACIFIC PUMPS (M)	51696	N/A	383
HHSI PMP 1C 2N121NPA101C	PACIFIC PUMPS (M)	51700	N/A	402
LHSI PMP 1A 2N121NPA102A	PACIFIC PUMPS (M)	51701	N/A	420
LHSI PMP 1B 2N121NPA102B	PACIFIC PUMPS (M)	51702	N/A	421
LHSI PMP 1C 2N121NPA102C	PACIFIC PUMPS (M)	51703	N/A	422
CS PMP 1A 2N101NPA101A	PACIFIC PUMPS (M)	51707	N/A	441
CS PMP 1B 2N101NPA101B	PACIFIC PUMPS (M)	51708	N/A	441
CS PMP 1C 2N101NPA101C	PACIFIC PUMPS (M)	51709	N/A	442
SI ACC TK 1A 2N121NRD101A	SOUTHWEST FAB (M)	0043	N/A	362
SI ACC TK 1B 2N121NRC101B	SOUTHWEST FAB (M)	0044	N/A	363
SI ACC TK 1C 2N121NRC101C	SOUTHWEST FAB (M)	0045	N/A	364
CS EDUCTOR 1A 2N101NED101A	EBASCO (I)	229	N/A	N/A
CS EDUCTOR 1B 2N101NED101B	EBASCO (I)	230	N/A	N/A
CS EDUCTOR 1C 2N101NED101C	EBASCO (I)	225	N/A	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-1 (Back)

8. Examination Dates 04/05/91 to 01/01/93 9. Inspection Interval from 06/25/88 to 08/25/98
10. Abstract of Examinations. Include a list of examinations and a statement concerning status of work required for second period and examinations performed to complete the requirements of the first period of the current interval. Refer to Supplemental Sheet Page 3 of 3.
11. Abstract of Conditions Noted
No relevant conditions affecting pressure retaining boundaries were noted.
12. Abstract of Corrective Measures Recommended and Taken
Refer to Supplemental Sheet Page 3 of 3.

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.

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

Date March 12, 1993 Signed Houston Lighting & Power Co. By D. C. Leazar
Owner Plant Engineering 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 Texas and employed by Arkwright Mutual Insurance Co. of Norwood, MASS. have inspected the components described in this Owner's Report during the period 8-5-92 to 3-22-93, and state that to the best of my knowledge and belief, the Owner has performed examinations and taken corrective measures described in this Owner's Report in accordance with the inspection plan and as required by the ASME Code, Section XI.

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

FACTORY MUTUAL SYSTEM

B. R. Russell Commissions TX-826
B. R. Russell, Inspector's Signature National Board, State, Province, and Endorsements

Date 3-22-19 93

SUPPLEMENTAL
FOR
ASME CODE CLASS 2 PIPING AND COMPONENTS

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1. Owner Houston Lighting & Power Company Electric Tower, P. O. Box 1700, Houston, TX 77001
(Name and Address of Owner)
2. Plant South Texas Project Electric Generating Station P. O. Box 289, Wadsworth, TX 77483
(Name and Address of Plant)
3. Plant Unit 1 4. Owner Certificate of Authorization (if required) N/A
5. Commercial Service Date 08/25/88 6. National Board Number for Unit N/A
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10. ABSTRACT OF EXAMINATIONS

System Inservice Tests as prescribed by IWA-5211(c) were conducted on selected ASME Code Class 2 Pressure Retaining Components in accordance with Table IWC-2500-1, Examination Category C-H, Item Nos. C7.30 and C7.70.

The Pressure Tests and VT-2 visual examinations were conducted during the first period of examination in accordance with the following Plant Surveillance Pressure Test Procedures:

- OPSP15-CM-0001 - Containment Hydrogen Monitoring System Functional Pressure Test, (Rev. 1)
- 1PSP15-CV-0001 - Chemical and Volume Control System Inservice Pressure Test, (Rev. 1)

The Pressure Tests and VT-2 visual examinations were conducted during the second period of examination in accordance with the following Plant Surveillance Pressure Test Procedures:

- OPSP15-CS-0001 - CS System Functional Pressure Test, (Rev. 0)
- 1PSP15-SI-0001 - Safety Injection System Functional Pressure Test, (Rev. 3)
- 1PSP15-SB-0001 - Steam Generator Blowdown System Inservice Pressure Test (Rev. 2)
- 1PSP15-FW-0001 - Feedwater System Inservice Pressure Test (Rev. 2)
(inside containment portion only)
- 1PSP15-RC-0001 - Reactor Coolant System Leakage Pressure Test (Rev. 2)

ASME Code Class 2 piping and valves are specifically identified in the above referenced procedures. These test procedures were conducted during the time period of April 5, 1991 to January 1, 1993.

12. ABSTRACT OF CORRECTIVE MEASURES RECOMMENDED AND TAKEN

The Visual Examinations (VT-2) performed during these Pressure Tests found only minor leakage at mechanical joints such as valve stems and flanged connections. These leaks were evaluated and determined acceptable for continued system operation. Appropriate corrective action was initiated to correct these leaks.