

APPENDIX

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

NRC Inspection Report: 50-498/90-37
50-499/90-37

Operating Licenses: NPF-79
NPF-80

Dockets: 50-498
50-499

Licensee: Houston Lighting & Power Company (HL&P)
P.O. Box 1770
Houston, Texas 77251

Facility Name: South Texas Project, Units 1 and 2 (STP)

Inspection At: STP, Matagorda County, Texas

Inspection Conducted: November 26-30, 1990

Inspectors: Amarjit Singh 12/5/90
A. Singh, Reactor Inspector, Test Programs
Section, Division of Reactor Safety Date

Dennis L. Kelley 12/5/90
D. L. Kelley, Reactor Inspector, Test Programs
Section, Division of Reactor Safety Date

Accompanying
Personnel: W. C. Seidle, Chief, Test Programs Section, Division of Reactor
Safety (November 29-30, 1990)

Approved: W. C. Seidle 12/5/90
W. C. Seidle, Chief, Test Programs Section
Division of Reactor Safety Date

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Inspection Summary

Inspection Conducted November 26-30, 1990 (Report 50-498/90-37)

Area Inspected: Followup on noncited violation 50-498/9004-01, which involved the fire protection program.

Results: The licensee took appropriate corrective action in response to the noncited violation. This item is considered closed.

Inspection Conducted November 26-30, 1990 (Report 50-499/90-37)

Area Inspected: Routine, announced inspection of the verification of isolation component exemptions (VOICE), and followup of noncited violation 50-499/9004-02.

Results: Within the area inspected, no violations or deviations were identified. The inspectors concluded that the licensee had a strong program in the area of containment integrated leak rate testing (CILRT) and local leak rate testing (LLRT). The inspectors did not observe any significant discrepancies. The inspectors did note that three penetrations outside the containment building were not labeled; however, the remaining penetrations and associated isolating components had the appropriate label and/or tag attached. The licensee took prompt corrective action to label the unmarked penetrations. The plant locations inspected were clean and free of trash indicating that, although the unit was in a refueling outage, the licensee had a well implemented and vigorous housekeeping effort. It was also noted that the licensee had no exemptions to Appendix J to 10 CFR Part 50 leak rate testing requirements for isolation components. The licensee had a strong training program for the personnel involved with the Appendix J local leak rate testing. The licensee also had taken corrective action in response to noncited violation (50-499/9004-02), which involved the fire protection program. This item is considered to be closed.

DETAILS

1. PERSONS CONTACTED

HL&P

- *M. R. Wisenburg, Plant Manager, STP Units 1 & 2
- *S. L. Rosen, Vice President, Nuclear Engineering
- *C. Ayala, Supervising Engineer, Licensing
- *B. R. Auguillard, Senior Development Analyst, Procedure Control
- *B. F. Bednarczyk, Consulting Engineer
- *J. R. Beers, Modification Supervisor, Design Engineering
- *M. K. Chakravorty, Director, Nuclear Safety Review Board
- *D. Chamberlain, Quality Engineering Group Supervisor
- *D. J. Denver, Manager, Plant Engineering
- *R. Estes, Senior Consultant
- *A. W. Harrison, Supervising Engineer, Licensing
- *W. H. Humble, Section XI Supervisor, Plant Engineering
- J. Johnson, Supervisor, Engineering Assurance
- *T. J. Jordan, General Manager, Engineering Assurance
- *A. K. Khosler, Senior Engineer, Licensing
- *D. A. Lrazar, Program Manager
- *S. Lamberto, Supervisor, Construction
- *M. A. McBurnett, Manager, Nuclear Licensing
- *A. McIntyre, Manager, Design Engineering
- *D. McCallum, Plant Operations Support Manager
- *M. Munoz, Records Specialist
- *D. Rhodes, Supervisor, Records Management
- *H. B. Ray, Engineering Licensing
- *D. P. Sanchez, Manager, Maintenance

NRC

- *R. J. Evans, Resident Inspector, Region IV (RIV)
- *C. E. Johnson, Reactor Inspector, Division of Reactor Safety (DRS), RIV
- *M. Runyan, Reactor Inspector, DRS, RIV
- *T. F. Stetka, Chief, Plant Systems Section, DRS, RIV

The inspectors also interviewed other licensee employees during the inspection.

*Denotes those attending the exit meeting conducted on November 30, 1990.

2. FOLLOWUP ON PREVIOUSLY IDENTIFIED NONCITED VIOLATION ITEM (92701)

(Closed) Noncited Violation (498/9004-01; 499/9004-02): This item addressed the fact that the licensee failed to follow the approved procedure to control flammable liquids stored in cabinets located in vital areas. During this inspection, the inspectors noted that the cabinets had been removed from the vital areas. The licensee had also revised the procedures for weekly audits

of combustible and flammable liquids. These audits are performed to ensure that the combustible load limits are maintained. In addition, the licensee revised the fire hazards analysis for all areas to ensure that the fire loads had been included in the combustible loadings. This item is considered closed.

3. VERIFICATION OF CONTAINMENT INTEGRITY (61715)

The purposes of the inspection were to visually identify all containment building penetrations and their isolating components; to verify that the components were identified on current piping and instrumentation diagrams or other drawings; to determine which isolating components had been excluded from 10 CFR Part 50 (Appendix J) leak rate testing programs; to determine if the criteria for exemptions were met, as set forth in Appendix J; and to identify any isolating components that had been given test waiver approval by the Office of Nuclear Reactor Regulation (NRR).

The inspectors performed a 100 percent walkdown of the accessible penetrations, which involved 95 mechanical and 69 electrical containment building penetrations and 402 isolating components associated with these penetrations. The inspectors were not able to walkdown 5 penetrations and 7 associated isolating components because of radiological conditions. This inspection was performed inside and outside the containment building and wherever possible, the inspectors traced associated system piping coming through an identified penetration back to its designated containment building isolation components on either side of the containment building wall. All of the penetrations, drawings, and associated procedures are listed in the Attachment. It was noted during the walkdown that three of the penetrations were not labeled. The remaining penetrations and their associated isolating components were appropriately tagged.

The inspectors compared piping and instrumentation drawings with all of the OPS11 leak testing procedures (refer to the Attachment for specific procedure references). The review did not identify any discrepancies between the piping and instrumentation drawings and the procedures. The inspectors also noted that the licensee had established a program to update the piping and instrumentation drawings regularly.

The inspectors observed that the plant locations inspected were clean and free of trash indicating a well implemented and vigorous housekeeping effort.

The licensee stated that it did not have any exemptions to Type A, B, or C tests required by Appendix J.

No violations or deviations were identified in the review of this program area.

4. CONTAINMENT LOCAL LEAK RATE TESTING (LLRT) (61720)

The purpose of this inspection was to verify that containment building local leak rate tests, as required by the STP Unit 2 Technical Specifications (TS), were performed to ensure that leakage through testable containment building penetrations and isolation valves would not exceed the allowable leakage specified. This review included records, procedures, and independent calculations associated with the LLRT Type C tests.

During the inspection, the inspectors reviewed the containment building LLRT Procedure OPSP11-ZA-0005, "Local Leak Rate Test Calculations and Guidelines," Revision 4. The procedure was complete and satisfactorily stated the acceptance criteria for each penetration and the associated containment building isolation valve (CIV). Test procedure instructions were concise and provided for independent verification of test results and for system restoration. The inspectors reviewed records of LLRTs conducted during 1988 and 1989. In conducting this review, the inspectors verified that corrective actions were taken on excessive leakage components and that appropriate retests were conducted on penetrations and CIVs. The cumulative data for containment building testable penetrations and CIVs were reviewed to verify that the containment building local leak rate did not exceed the acceptance criteria. The LLRT results were well within the acceptance criteria as required by the TS.

The inspectors also noted that the use of "N/A" [not applicable] was not prevalent in the data packages, and in several instances, a clear explanation was given in those cases where "N/A" was used.

During this inspection, the inspectors also reviewed the training program for the LLRT and the training records of the individuals who performed the LLRT tests. The training program was comprehensive and contained well documented lesson plans. The individuals met the established qualifications in accordance with the procedures. The inspectors concluded that the licensee had a strong training program for the personnel involved with the Appendix J LLRT program.

No violations or deviations were identified in the review of this program area.

5. EXIT MEETING

An exit meeting was held on November 30, 1990, with personnel identified in paragraph 1 of this report. At the exit meeting, the inspectors summarized the scope and findings of the inspection. The licensee did not identify as proprietary any of the information provided to, or reviewed by, the inspectors.

ATTACHMENT

1. CONTAINMENT PENETRATION INDEX AND DRAWINGS

<u>Penetration No.</u>	<u>LLRT Test Procedure No.</u>	<u>P&ID No.</u>
M-1	CILRT	9F00024; 9F00016
M-2	CILRT	9F00016
M-3	CILRT	9F00016
M-4	CILRT	9F00016
M-5	CILRT	9F00062; 9F00063
M-6	CILRT	9F00062; 9F00063
M-7	CILRT	9F00062; 9F00063
M-8	CILRT	9F00062; 9F00063
M-9	OPSP11-CS-0003	9F05037
M-10	OPSP11-SI-0007	9F05015
M-11	OPSP11-SI-0008	9F05015
M-12	OPSP11-SL-0001	9F05057
M-13	OPSP11-CS-0002	9F05037
M-14	OPSP11-SI-0012	9F05014
M-15	OPSP11-SI-0014	9F05014
M-16	OPSP11-SL-0002	9F05057
M-17	OPSP11-CS-0001	9F05037
M-18	OPSP11-SI-0013	9F05013
M-19	OPSP11-SI-0015	9F05013
M-20	OPSP11-SI-0003	9F05015
M-21	OPSP11-SI-0002	9F05014
M-22	OPSP11-SI-0001	9F05013
M-23	OPSP11-CC-0005	9F05019
M-24	OPSP11-CC-0006	9F05019
M-25	OPSP11-CC-0001	9F05017
M-26	OPSP11-CC-0002	9F05017
M-27	OPSP11-CC-0003	9F05018
M-28	OPSP11-CC-0004	9F05018
M-29	OPSP11-SI-0010	9Z00045
M-30	OPSP11-RC-0001	9F05022
M-31	"A" Type Test	Spare
M-32	OPSP11-IL-0005	9V00017; 9F05001; 9F05058
M-33	OPSP11-CC-0007	9F05017
M-34	OPSP11-CC-0008	9F05017
M-35	OPSP11-CC-0009	9F05018
M-36	OPSP11-CC-0010	9F05018
M-37	OPSP11-CC-0011	9F05019

<u>Penetration No.</u>	<u>LLRT Test Procedure No.</u>	<u>P&ID No.</u>
M-38	OPSP11-CC-0012	9F05019
M-39	OPSP11-CC-0013	9F05021
M-40	OPSP11-CC-0014	9F05021
M-41	OPSP11-HC-0001	9V00018
M-42	OPSP11-HC-0002	9V00018
M-43	OPSP11-HC-0003	9V00019
M-44	OPSP11-HC-0004	9V00019
M-45	OPSP11-RM-0001	9Z4751; 9F05004
M-46	OPSP11-CV-0001	9F05005
M-47	OPSP11-RC-0002	9F05005
M-48	OPSP11-CV-0002	9F05005
M-49	"A" Type Test	Spare
M-50	"A" Type Test	Spare
M-51	OPSP11-RC-0003 -0009	9F05005
M-52	OPSP11-RC-0010	9F05005
M-53	OPSP11-CV-0003	9F05006
M-54	"A" Type Test	9V00017; 9F05001
M-55	OPSP11-RH-0002	9F20000
M-56	OPSP11-WL-0001	9F05022
M-57	OPSP11-SA-0001	9F05041
M-58	OPSP11-IA-0001	9F05040
M-59	"A" Type Test	Spare
M-60	"A" Type Test	Spare
M-61	OPSP11-DW-0001	9F05034
M-62	CILRT	9F20001
M-63	CILRT	9F20001
M-64	CILRT	9F20001
M-65	CILRT	9F20001
M-66	"A" Type Test	Spare
M-67	"A" Type Test	Spare
M-68	OPSP11-SI-0011 -0004 -RC-0006	9F05016; 9F05004; 9V00017; 9F05001
M-69	OPSP11-FC-0001	9F05028
M-70	OPSP11-FC-0002	9F05028
M-71	OPSP11-IL-0001	ILRT Connection
M-72	OPSP11-WL-0002	9F05030; 9Z47501
M-73	"A" Type Test	Spare
M-74	"A" Type Test	Spare
M-75	OPSP11-PO-0001	9F05042
M-76	OPSP11-RH-0003	9F20000
M-77	OPSP11-FP-0001	9F05047
M-78	"A" Type Test	Spare
M-79	OPSP11-SL-0003	9F05047

<u>Penetration No.</u>	<u>LLRT Test Procedure No.</u>	<u>P&ID No.</u>
M-80	OPSP11-RA-0001 -0002 -CM-0002	9Z00046; 9V00017
M-81	OPSP11-AP-0003	9F05042
M-82	OPSP11-PO-0002 OPSP11-IL-0006 -AP-0004 -BA-0001 -CM-0004	9Z47501; 9Z00046; 9F05044
M-83	CILRT	9F00024; 9F00063
M-84	CILRT	9F00024; 9F00063
M-85	OPSP11-RC-0007 -0011 -0012	9Z00045
M-86	OPSP11-RC-0008	9F20001; 9Z47501; 9Z00045
M-87	OPSP11-IL-0003	ILRT Connection
M-88	OPSP11-RD-0001	9F05046
M-89	OPSP11-XC-0007	Fuel Transfer Tube
M-90	OPSP11-XC-0002 -0008	Personnel Airlock
M-91	OPSP11-XC-0004 -0006	Auxiliary Airlock
M-92	OPSP11-XC-0001	Equipment Hatch
M-93	"A" Type Test	Spare
M-94	CILRT	9F00024; 9F00063
M-95	CILRT	9F00024; 9F00063

2. PROCEDURES

<u>Procedure No.</u>	<u>Title</u>	<u>Date</u>
OPSP11-ZA-0005 Revision 4	Local Leak Rate Test Calculations and Guidelines	4/6/90
OPGP03-ZE-0011 Revision 3	Containment Leakage Rate Testing Program	8/1/89

3. OTHER DOCUMENTS

South Texas Final Safety Analysis Report, Section 6.2.4, "Containment Isolation System"

South Texas Project Safety Evaluation Report, Section 6.2.4, "Containment Isolation System," and Section 6.2.6, "Containment Leakage Testing"