

June 9, 1995

Mr. William T. Cottle
Group Vice-President, Nuclear
Houston Lighting & Power Company
South Texas Project Electric
Generating Station
P. O. Box 289
Wadsworth, TX 77483

SUBJECT: ISSUANCE OF EXEMPTION FROM THE REQUIREMENTS OF 10 CFR PART 50,
APPENDIX J, FOR SOUTH TEXAS PROJECT, UNIT 2, TO DELAY THE NEXT
REQUIRED CONTAINMENT INTEGRATED LEAK RATE TEST (TAC NO. M91829)

Dear Mr. Cottle:

The Commission has issued the enclosed exemption from certain requirements of 10 CFR Part 50 relating to the performance of the Containment Integrated Leak Rate Test (CILRT). This exemption is related to your application dated March 16, 1995, to delay the next scheduled CILRT for one outage, from the fourth refueling outage to the fifth refueling outage.

The Commission has granted this Exemption pursuant to 10 CFR 50.12. A copy of the Exemption is being forwarded to the Office of the Federal Register for publication.

Sincerely,

ORIGINAL SIGNED BY:

Thomas W. Alexion, Project Manager
Project Directorate IV-1
Division of Reactor Projects - III/IV
Office of Nuclear Reactor Regulation

Docket No. 50-499

Enclosure: Exemption

cc w/encl: See next page

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

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Group Vice-President, Nuclear
Houston Lighting & Power Company
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Sincerely,

A handwritten signature in cursive script, reading "Thomas W. Alexion", is positioned above the typed name and title.

Thomas W. Alexion, Project Manager
Project Directorate IV-1
Division of Reactor Projects - III/IV
Office of Nuclear Reactor Regulation

Docket No. 50-499

Enclosure: Exemption

cc w/encl: See next page

Mr. William T. Cottle
Houston Lighting & Power Company

South Texas, Units 1 & 2

cc:

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Wadsworth, TX 77483

Docket No. 50-499

I.

The facility consists of a pressurized water reactor at the licensee's site in Matagorda County, Texas.

Section III.D.1.(a) of Appendix J to 10 CFR Part 50 requires the performance of three Type A containment integrated leakage rate tests (CILRTs), at approximately equal intervals during each 10-year service period. The third test of each set shall be conducted when the plant is shutdown for the 10-year plant inservice inspection.

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III.

By letter dated March 16, 1995, Houston Lighting & Power requested relief from the requirement to perform a set of three Type A tests at approximately equal intervals during each 10-year service period. The requested exemption would permit an interval extension for the second Type A test of approximately 18 months (from the currently scheduled outage, Fall 1995, until the next planned refueling outage, Spring 1997). This request does not alter the requirement that the third Type A test shall be conducted when the plant is shutdown for the 10-year plant inservice inspection.

The licensee's request cites the special circumstances of 10 CFR 50.12, paragraph (a)(2)(ii), as the basis for the exemption. The underlying purpose of the requirement to perform three Type A CILRTs, at approximately equal intervals during each 10-year service period, is to assure that leakage through the primary reactor containment is detected and does not exceed allowable leakage rate values. The licensee has stated that the existing Type B and C local leak rate test (LLRT) programs are not being modified by this request, and will continue to effectively detect containment leakage caused by the degradation of active containment isolation components as well as containment penetrations. It has been the consistent and uniform experience at South Texas during the two Type A tests conducted in 1988 (the pre-operational Type A test) and 1991 (the first periodic Type A test), that any significant containment leakage paths are detected by the Type B and C testing. The Type A test results have only been confirmatory of the results of the Type B and C test results. Therefore, consistent with 10 CFR 50.12,

paragraph (a)(2)(ii), application of the regulation in this particular circumstance is not necessary to achieve the underlying purpose of the rule.

IV.

Section III.D.1.(a) of Appendix J to 10 CFR Part 50 states that a set of three Type A leakage rate tests shall be performed at approximately equal intervals during each 10-year service period.

The licensee proposes an exemption to this section which would provide an interval extension for the Type A test by approximately 18 months. The Commission has determined that pursuant to 10 CFR 50.12(a)(1) that this exemption is authorized by law, will not present an undue risk to the public health and safety, and is consistent with the common defense and security. The Commission further determines that special circumstances, as provided in 10 CFR 50.12(a)(2)(ii), are present justifying the exemption; namely, that application of the regulation in this particular circumstance is not necessary to achieve the underlying purpose of the rule.

The NRC staff has reviewed the basis and supporting information provided by the licensee in the exemption request. The NRC staff has noted that the licensee has a good record of ensuring a leak-tight containment. Both previous Type A tests were within the acceptance limits, and both passed with significant margin. In addition, at the staff's request, the licensee has verbally committed to perform the general containment inspection specified in Section V.A of Appendix J, even though this inspection is only required prior to a Type A test.

The NRC staff has also made use of a draft staff report, NUREG-1493, which provides the technical justification for the present Appendix J rulemaking effort which also includes a 10-year test interval for Type A tests. The integrated leakage rate test, or Type A test, measures overall containment leakage. However, operating experience with all types of containments used in this country demonstrates that essentially all containment leakage can be detected by local leakage rate tests (Type B and C). According to results given in NUREG-1493, out of 180 ILRT reports covering 110 individual reactors and approximately 770 years of operating history, only about 3% of leakage that exceeds current requirements is detectable only by CILRTs, and those few failures were only marginally above prescribed limits. This study agrees well with previous NRC staff studies which show that Type B and C testing can detect a very large percentage of containment leaks. The South Texas Project, Unit 2 experience has also been consistent with this.

The Nuclear Management and Resources Council (NUMARC), now the Nuclear Energy Institute (NEI), collected and provided the NRC staff with summaries of data to assist in the Appendix J rulemaking effort. NUMARC collected results of 144 ILRTs from 33 units; 23 ILRTs exceeded $1.0L_a$. Of these, only nine were not due to Type B or C leakage penalties. The NEI data also added another perspective. The NEI data show that in about one-third of the cases exceeding allowable leakage, the as-found leakage was less than $2L_a$; in one case the as-found leakage was less than $3L_a$; one case approached $10L_a$; and in one case the leakage was found to be approximately $21L_a$. For about half of the failed ILRTs the as-found leakage was not quantified. These data show that, for those ILRTs for which the leakage was quantified, the leakage values are small

in comparison to the leakage value at which the risk to the public starts to increase over the value of risk corresponding to L_a (approximately $200L_a$, as discussed in NUREG-1493).

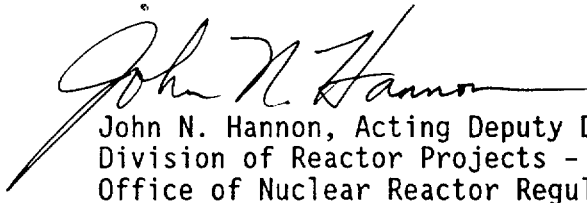
Based on generic and plant-specific data, the NRC staff finds the basis for the licensee's proposed exemption to allow a one-time exemption to permit a schedular extension of one cycle for the performance of the Appendix J Type A test to be acceptable.

Pursuant to 10 CFR 51.32, the Commission has determined that granting this Exemption will not have a significant impact on the environment (60 FR 28431).

This Exemption is effective upon issuance and shall expire at the completion of the 1997 refueling outage.

Dated at Rockville, Maryland, this 9th day of June 1995.

FOR THE NUCLEAR REGULATORY COMMISSION


John N. Hannon, Acting Deputy Director
Division of Reactor Projects - III/IV
Office of Nuclear Reactor Regulation