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

FEB 23 1979

Docket Nos. STN 50-498
and STN 50-499

Mr. E. A. Turner
Vice President
Houston Lighting and Power Company
P. O. Box 1700
Houston, Texas 77001

Dear Mr. Turner:

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION FOR THE REVIEW OF THE SOUTH TEXAS FINAL SAFETY ANALYSIS REPORT (FSAR)

As a result of our continuing review of the South Texas FSAR, we find that we need additional information to complete our evaluation. The specific information required is in the area of containment systems and is listed in the Enclosure.

To maintain our licensing review schedule for the South Texas FSAR, we will need responses to the enclosed request by May 21, 1979. If you cannot meet this date, please inform us within seven days after receipt of this letter of the date you plan to submit your responses so that we may review our schedule for any necessary changes.

Please contact us if you desire any discussion or clarification of the enclosed request.

Sincerely,

Olan D. Parr, Chief
Light Water Reactors Branch No. 3
Division of Project Management

Enclosure:
As Stated

cc w/enclosure:
See next page

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ENCLOSURE

REQUEST FOR ADDITIONAL INFORMATION

FOR THE REVIEW OF THE FSAR FOR THE

SOUTH TEXAS PROJECT, UNITS 1 AND 2

022.0 CONTAINMENT SYSTEMS

022.8 (6.2.1) In Section 6.2.1.2.3.1, it is stated that the pressure transients were determined with the RELAP-3 computer code. However, it is our understanding that this version of the RELAP code models only single component two-phase flow, thereby neglecting the effects of air. Therefore, provide a discussion as to how this assumption in the model (i.e., neglecting air) will affect the net results of each subcompartment analysis.

022.9 (6.2) (9.4.5) The response to Request No. 022.5 regarding containment purging is incomplete since you plan to use the supplementary containment purge subsystem (Section 9.4.5.2.6) more than 90 hours per year. Therefore, address the following sections of BTP CSB 6-4 (which was provided during the Acceptance Review): B.1.a, B.1.c, B.1.g. and B.5.h.

022.10 (6.2) The response to Request No. 022.5 states that usage of the normal containment purge subsystem will be restricted to post-shutdown periods. Provide a clarification that the term "post-shutdown" refers only to the cold shutdown and refueling modes of plant operation.

022.11 (6.2) (RSP) The response to Request No. 022.5 assumes a maximum closure time for the supplementary containment purge subsystem (18-inch) isolation valves of 25 seconds. It is our position that the closure time for the valves should not exceed 5 seconds (see BTP CSB 6-4, Item B.1.f). Revise your FSAR accordingly.

022.12 (6.2) Provide the following information regarding the post-LOCA hydrogen production analysis:

(1) The total surface area of the zinc-based protective coating system within the containment;

(2) The total mass of zinc associated with the coating system; and

(3) Specification and justification of the corrosion rates for the zinc-based coating system.

022.13 (6.2) Provide detailed drawings of the containment emergency sump, including the sump screen structures, and discuss how the sump design complies with Regulatory Guide 1.82.

022.14 (6.2.2) In Section 6.2.2.3.5, "Pump Net Positive Suction Head Requirements," it is concluded that adequate NPSH will be available for the containment spray system pumps based on a Westinghouse analysis. Provide this analysis to permit us to evaluate the extent of compliance with Regulatory Guide 1.1.

022.15 (6.2.4) Augment Table 6.2.4-1 "Containment Isolation Valving" and Figure 6.2-4 "Schematic Diagram Containment Isolation Valving" to include any piping branch lines situated between the containment and the penetration isolation valves.

022.16 (6.2.4) (RSP) The containment isolation valves for the supplemental containment purge subsystem are motor operated valves, which by design fail in the "as is" position upon loss of power. It is our position that valves, which close upon loss of actuating power, be used for containment purge systems. Discuss your plans for complying with this position.

022.17 (6.2.4) In Section 6.2.4.2.1, "Special Containment Isolation Provisions," it is stated that remote manual valves are used in ESF lines. As stated in Standard Review Plan 6.2.4 (Item II.11), the design of the containment isolation system is acceptable if provisions are made to allow the operator in the main control room to know when to isolate fluid systems that are equipped with remote manual isolation valves. Discuss the design features that assure compliance with SRP 6.2.4.

022.18 (6.2.4) (RSP) It is our position that all power operated valves be provided with status indication in the main control room. Provide confirmation that this position will be met.

022.19 (6.2.4) The response to Request No. 022.7 is not complete. Therefore, provide the following information:

(1) The response to Item 5 of 022.7 does not address the issue. If a system is not vented and drained for the Type A test, it is presumed that the system will not constitute a containment atmosphere leak path following a LOCA. For this situation to exist, there must be a sufficient water inventory at a sufficiently high pressure to preclude containment leakage or to assure that only liquid leakage will occur. Therefore, justify that a sufficient water inventory will exist assuming a single failure of any active component. Discuss how hydrostatic testing of the system, including the containment isolation valves, will be done to quantify the liquid leakage and to demonstrate inventory.

(RSP) (2) The response to Item 6 of 022.7 does not address the issue. Certain systems may be needed to facilitate the performance of the containment integrated leakage rate test and, therefore, are not vented and drained. However, under accident conditions these systems may become containment atmosphere leak paths. It is these systems which should be addressed. It is our position that the containment isolation valves in these systems be locally (Type C) leak tested and the measured leakage added to the Type A test results. Identify the systems involved and discuss your plans for complying with the above position.

022.19 (6.2.4) (Cont'd) (3) Provide the basis for concluding that reverse leakage testing of containment isolation valve FXC050 (see Table 6.2.2-3) is at least equivalent to testing the valve in the forward direction.

(4) Table 6.2.6-2 indicates that containment isolation valves associated with the secondary side will not be locally (Type C) leak tested. However, if containment atmosphere leakage is postulated to occur through the steam generator tube bundle, the secondary system isolation valves would become containment atmosphere leak paths. In this regard, a water seal may be shown to exist that will preclude containment atmosphere leakage. If this approach is taken, discuss how a water seal can be established and maintained using safety grade pipes and components. Provide system drawings showing the routing and elevation of piping to show the existence of a water seal.

(RSP) (5) It is our position that the containment isolation valves for the following piping penetrations be included in the local (Type C) leak testing program: M-41, M-42, M-43, M-44, M-54, M-71 and M-87. Discuss your plans for complying with this position.