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February 13, 1981

HOU-0113-81-018

Dr. J. R. Sumpter  
Manager, Nuclear Engineering  
Houston Lighting and Power Company  
P. O. Box 1700  
Houston, Texas 77001

Subject: Proposed Report Outline for B&R Design Review

Dear Dr. Sumpter:

After considerable thought, I would propose that we develop a concise 10 to 20 page executive summary which is supported by 10 to 30 pages of technical adequacy assessment for each technical discipline in sequence. The design review questions and responses would be located in a separate Appendix (Volume II).

The executive summary would have these sections:

- (a) introduction, to state the purpose of the review, and to present its scope and depth;
- (b) methodology, to describe the conduct of the review, upper management level reviews, dates of meetings and participants, and a disclaimer statement to alert the reader regarding possible limitations due to sampling error and time duration allotted for the review;
- (c) generic observations, to provide an overall statement of STP design adequacy with summary highlights of strengths and weaknesses for each technical discipline; and
- (d) generic recommendations, to identify correctable problem areas, subsequent in-depth review areas worthy of pursuit, and suggested improvements deemed necessary.

The remainder of Volume I would be a technical adequacy assessment with substantiation for each discipline in sequence, and would address the following areas:

- (a) are the design criteria selected to satisfy appropriate design basis requirements, such as safety needs or power production needs?

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Report of \_\_\_\_\_  
Director \_\_\_\_\_  
Contractor \_\_\_\_\_  
Conf. Officer \_\_\_\_\_  
Applicant \_\_\_\_\_  
Staff \_\_\_\_\_  
In the matter of \_\_\_\_\_  
Project No. STN 50-4980L  
NUCLEAR REGULATORY COMMISSION  
Official Exp. No. \_\_\_\_\_  
DATE RECEIVED \_\_\_\_\_  
DATE REJECTED \_\_\_\_\_  
DATE \_\_\_\_\_  
WITNESS \_\_\_\_\_  
TATZ  
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✓  
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- (b) are the chosen design criteria and requirements adequate for STP? Are they complete? Which ones are missing and why should they be adopted? Are these criteria and requirements and the FSAR licensing commitments properly reflected in the STP design?
- (c) are the chosen analysis methods adequate for STP? Are the chosen models and computer codes adequate? Are the analysis results properly reflected in the STP design?
- (d) are the technical assumptions used for design and analysis reasonable for STP?
- (e) are the design inputs used by the discipline correct in quantity and quality and are they current?
- (f) have the various plant operating states and environmental conditions been considered in the design and analysis? Are they consistent with other technical disciplines? Are they adequately reflected in the STP design?
- (g) have transient and accident conditions been considered in the design and analysis? Are they adequately reflected in the STP design?
- (h) have interfaces with other disciplines and major subcontractors been adequately addressed? Has the discipline assured that its design outputs are properly used by others? Is the design compatible with other plant systems?
- (i) has the discipline closed the loop to assure that actual equipment characteristics remain within the design bounding values? Is the plan for incorporating as-built information reasonable?
- (j) have maintenance, test and inspection requirements needed by STP been adequately incorporated into the design?
- (k) have reasonable acceptance criteria been chosen where appropriate?
- (l) are the design verification methods used for STP acceptable? Have identified discrepancies been adequately resolved and reflected in the design? Are the chosen design verifiers appropriate for this task?
- (m) is there evidence that the design is overly conservative and un-economic? If so, where and why?

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- (n) do uncertainties remain in the reviewer's mind regarding technical adequacy of the design and analysis? Were unexpected problem areas uncovered during the design review? Is there a generic problem or are they individual problems each of limited scope? Is this significant for STP?
- (o) based on the responses to the questions asked, is there a need to pursue these particular areas in greater depth? Are there other areas that should be investigated? If so, where and why?

I would welcome your thoughts on this proposed outline.

Sincerely,

Loren Stanley  
Group Manager  
Plant Safety Analysis

LS/bjk

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