

HOUSTON LIGHTING & POWER COMPANY
NUCLEAR ENGINEERING & CONSTRUCTION
PROCEDURES MANUAL

SUMMARY OF REVISIONS

PROC NO EAD-6		SUBJECT Contracting and Administering Third-party Design Assessments						
REVISION NUMBER	REVISION DESCRIPTION						Training Required	
							yes	no
0	Original issuance						✓ <i>[Signature]</i>	
1	Changes "design process technical audit" to "design process review"							✓ <i>[Signature]</i>
REVISION AUTHORIZATION								
REVISION NUMBER	0	1						
ISSUE DATE	12-1-82	6-15-83						
EFFECTIVE DATE	12-15-82	6-20-83						
PREPARED BY	S. G. Cartwright	<i>[Signature]</i>						
APPROVED BY								
APPROVED BY	<i>[Signature]</i>	<i>[Signature]</i>						

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1.0 Purpose

This procedure establishes requirements for selection of outside engineering organizations to perform third-party design assessments and Engineering Assurance Department (EAD) functions in administering the activities of the third-party design assessment organization. Additionally, the procedure states the requirements for Engineering Assurance Department handling of reports generated as a result of such assessments.

2.0 Scope

This procedure applies to services contracted by the Engineering Assurance Department solely for the purpose of third-party design assessments by outside engineering organizations. The procedure does not apply to contracts for engineering personnel in support of independent technical assessments performed by the Engineering Assurance Department.

3.0 References

- 3.1 Engineering Assurance Department Procedure EAD-2, Planning and Scheduling of Design Process Reviews and Technical Assessments | R1
- 3.2 Engineering Assurance Department Procedure EAD-7, Reporting and Disposition of Action Items

4.0 Definitions

None

5.0 Responsibilities

- 5.1 Vice President, Nuclear Engineering & Construction
Approves selection of engineering organization for third-party design assessments
- 5.2 Manager, Engineering Assurance Department
Selects the subject and depth of review, approves Requisition on Purchasing Department, or RPD (Attachment 7.1), for contract initiation, comments on draft reports
- 5.3 Responsible engineer
Performs evaluation(s) of acceptable bidders and administers contract(s) per Paragraphs 6.5, 6.6, and 6.14

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- 5.4 South Texas Project (STP) Power Plant Purchasing Department
Responsible for contract-writing and commercial negotiations for procurement of engineering services for the EAD

6.0 Procedure

The sequence of activities for contracting and administering third-party design assessments is shown on Attachment 7.2 and described below:

- 6.1 The Manager, Engineering Assurance Department, shall select the subject(s) to be verified by third-party design assessment and the depth of the review required. Considerations for determining the subject matter of the assessment shall be as stated in Paragraph 6.1 of Engineering Assurance Department Procedure EAD-2, Planning and Scheduling of Design Process Reviews and Technical Assessments. Additionally, the Manager, Engineering Assurance Department, shall assign the most applicable Engineering Assurance Department discipline engineer(s) the responsibilities and actions defined below. R1
- 6.2 The responsible engineer(s) shall prepare a written definition of work to be contracted, setting forth the following:
- 6.2.1 Schedule requirements
 - 6.2.2 Work scope
 - 6.2.3 Sample design documents and listing if possible
 - 6.2.4 Quality assurance program requirements for the contracted organization

The 10 CFR 50 Appendix B criteria may be selected as applicable to the engineering organization for the scope of work defined. A Quality Assurance Department audit of the contracted organizations may be necessary to verify compliance with the requirements of the work scope.

- 6.3 The responsible engineer shall prepare a listing of acceptable engineering organizations to perform the work. Stone & Webster Engineering Corporation (SWEC) will be given priority for providing third-party design assessments. However, if it is determined that SWEC's capability is insufficient to meet the needs of the Engineering Assurance Department, other consultants shall be utilized. If SWEC is selected, the next step in the procedure shall be Paragraph 6.12. If a contrac-

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tor other than SWEC is to be utilized, all the following paragraphs must be observed.

- 6.4 The responsible engineer shall solicit, from the consultants on the list, proposals for the work scope defined. The bid request shall define the format of the proposal, as well as identify the bid expiration date.
- 6.5 As a minimum, the responsible engineer shall evaluate all proposals for acceptability in the following areas:
 - 6.5.1 Compliance with schedule requirements
 - 6.5.2 Technical capability and experience
 - 6.5.3 Cost
 - 6.5.4 Commercial terms and conditions

Clarifications on the proposal or negotiation of exceptions will be the responsibility of the engineer, with assistance on commercial terms from the STP Purchasing Department. A pre-award meeting with the contractor may be required to ensure agreement between both parties to the proposal.
- 6.6 The responsible engineer shall obtain the QA Department's evaluation of the bidder's quality assurance program, addressing criteria identified in the work scope.
- 6.7 After completion of the evaluation, the responsible engineer and the Manager, Engineering Assurance Department, shall select and recommend to the Vice President, Nuclear Engineering & Construction, a consultant for the proposed work scope.
- 6.8 The Vice President, Nuclear Engineering & Construction, shall approve the selection or reject it, requiring additional evaluation and/or different consultant selection.
- 6.9 Upon approval of the consultant by the Vice President, Nuclear Engineering & Construction, the responsible engineer shall initiate an RPD (Attachment 7.1) to authorize Purchasing to put the contract in final form.

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- 6.10 The responsible engineer shall review the final contract for compliance with technical matters and schedule requirements and obtain QA Department review for compliance with QA requirements.
- 6.11 Following issuance of the contract or letter of intent, a post-award meeting shall be held with the consultant to define contacts and verify understanding of the contract.
- 6.12 A pre-assessment meeting shall be held between the consultant, Engineering Assurance Department personnel, and the project engineering team for information exchange, transfer of design documents, etc.
- 6.13 The outside organization shall select the specific design assessment methods (e.g., design review, use of alternate calculations) to be used and shall prepare an assessment plan defining the scope, methods to be used, special concerns, and other information pertinent to the assessment. A copy of the assessment plan shall be sent to the EAD for approval.
- 6.14 The consultant shall initiate third-party design assessment of the review subject. In administering the contract, the responsible engineer shall perform the following activities:
 - 6.14.1 Act as a focal point for all communication regarding contractual or technical matters
 - 6.14.2 Monitor consultant's progress in meeting schedule requirements
 - 6.14.3 Monitor manpower use and productivity
 - 6.14.4 Review and approve invoices for payment
- 6.15 A post-assessment meeting shall be held between the consultant, Engineering Assurance Department personnel, and the project engineering team to present and clarify findings prior to development of the assessment report.
- 6.16 The consultant shall prepare a draft report of the assessment, including purpose, scope, results, and observations. Additionally, the report must include a list of documents reviewed, alternate calculations performed, problems encountered in similarly-designed plants, recommendations for necessary corrective and preventive actions, a justification of the consultant's assessment methods (e.g., checking,

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use of alternate calculations, etc.), identification of assessment participants, and appropriate comments on the significance of the results.

- 6.17 The report shall be processed as follows from draft to final status:
 - 6.17.1 The draft report shall be delivered under an appropriate consultant's cover letter to the EAD, requesting HL&P review.
 - 6.17.2 The Engineering Assurance Department shall review the report and provide written comments to the consultant via an HL&P cover letter.
 - 6.17.3 The consultant shall resolve the comments in preparation of a final report.
 - 6.17.4 The final report shall include as an appendix Engineering Assurance Department comments and the consultant's resolution of those comments.
- 6.18 The Engineering Assurance Department shall review the final report, determine the action items required, and issue the report for distribution to the Vice President, Nuclear Engineering & Construction, the Manager, Quality Assurance Department, and the Manager, Engineering. Processing of action items shall be in accordance with Engineering Assurance Department Procedure EAD-7, Reporting and Disposition of Action Items.
- 6.19 Contract revisions/changes in scope after issuance of the final contract shall be handled in the following manner:
 - 6.19.1 The revision/change in scope shall be identified and defined by the responsible engineer.
 - 6.19.2 The contracted third-party engineering organization shall propose revised cost or commercial data to cover the change in scope or revision.
 - 6.19.3 The responsible engineer, with assistance of the Purchasing Department as required, shall evaluate the acceptability of the proposal.

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6.19.4 If the proposal is acceptable, the responsible engineer shall issue an RPD and secure the signature of the Manager, Engineering Assurance Department, authorizing the Purchasing Department to revise the contract in accordance with the proposal. If the proposal is unacceptable, the responsible engineer and/or Purchasing representative shall negotiate with the contractor to the satisfaction of both parties.

7.0 Attachments

7.1 Requisition on Purchasing Department (RPD)

7.2 Procedure flow chart

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PREPARED BY _____ FOR _____ NAME DEPARTMENT		APPROVED _____ BUYER MANAGER OF PURCHASING		APPROVED _____ GROUP VICE PRESIDENT	
BUDGET ITEM _____ AUTH AMT \$ _____		APPROVED _____ VICE PRESIDENT		APPROVED _____ PRESIDENT	
APPROVED _____ DEPARTMENT HEAD		PURCHASING DEPARTMENT COPY			

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Attachment 7.2

Procedure Flow Chart

